



കേരള സർക്കാർ  
GOVERNMENT OF KERALA








# PROSPECTUS

Admission to Kerala  
Engineering, Architecture and Medical Courses

ENGINEERING | ARCHITECTURE | MBBS | BDS | AYURVEDA | HOMOEOPATHY | SIDDHA | UNANI | AGRICULTURE | FORESTRY | VETERINARY | FISHERIES

Online Application at  
[www.cee.kerala.gov.in](http://www.cee.kerala.gov.in)

## Six Steps for Application

-  Registration
-  Upload Images
-  Fill Application
-  Pay Application Fee
-  Print Application
-  Send Printout and proof to CEE



OFFICE OF THE  
COMMISSIONER FOR ENTRANCE EXAMINATIONS

FIFTH FLOOR, HOUSING BOARD BUILDINGS, SANTHI NAGAR  
THIRUVANANTHAPURAM-695001

Email : [ceekinfo@cee.kerala.gov.in](mailto:ceekinfo@cee.kerala.gov.in). Website : [www.cee-kerala.org](http://www.cee-kerala.org)  
Phone: 0471-2332120, 2338487. Fax : 0471-2337228.



GOVERNMENT OF KERALA

# PROSPECTUS FOR ADMISSION TO PROFESSIONAL DEGREE COURSES

[MEDICAL, AGRICULTURE, FORESTRY, VETERINARY, FISHERIES, ENGINEERING & ARCHITECTURE COURSES]

## 2017

(Approved vide G.O (MS) No.31/2017/H.Edn. dated, Thiruvananthapuram, 30.01.2017)

For Online Submission of Application  
visit: [www.cee.kerala.gov.in](http://www.cee.kerala.gov.in)

OFFICE OF THE COMMISSIONER FOR ENTRANCE EXAMINATIONS  
5<sup>th</sup> FLOOR, HOUSING BOARD BUILDINGS, SANTHI NAGAR,  
THIRUVANANTHAPURAM - 695 001  
Phone: 0471-2332120, 2338487  
[www.cee-kerala.org](http://www.cee-kerala.org)

# KEAM - 2017

## INFORMATION AT A GLANCE

1. Online Application submission : From 01.02.2017 (Wednesday)
2. Last date for submission of Online Application including Fee payment : 27.02.2017, 5 pm (Monday)
3. Last date for receipt of Printout of Online Application along with supporting documents : 28.02.2017 (Tuesday)
4. Downloading Online Admit Cards : From 10.04.2017 (Monday)
5. Date & Time of Engineering Entrance Examination:
  - Physics & Chemistry (Paper-I) : 24.04.2017, 10 am to 12.30 pm
  - Mathematics (Paper-II) : 25.04.2017, 10 am to 12.30 pm
6. Venue of Examination : As indicated in the Admit Card
7. Time Schedule for the Examination (IST) : **Engg Paper-I & Paper-II**
  - (a) Entry to the Examination Hall : 9.30 am
  - (b) Distribution of Question Booklet : 9.55 am
  - (c) Opening of the Question Booklet and Commencement of Examination : 10.00 am
  - (d) Latest entry to the Examination Hall : 10.30 am
  - (e) Conclusion of Examination : 12.30 pm
8. Materials permitted in the examination hall : Admit Card, Card Board/Clip Board, Ball-Point pens (with Black or Blue ink only)
9. Rough work : All rough work are to be done in the Question Booklet only. The candidate shall not do any rough work or put Stray Mark(s) on the OMR answer sheet.
10. Declaration of Results:
  - Result of Engineering Entrance Examination : On or before 25.05.2017
  - Engineering, Architecture, MBBS/BDS, Medical & Allied and Ayurveda Rank lists : On or before 20.06.2017
11. Centralised Allotment Process (CAP-2017) : See Clause 11
12. Certificates/documents to be produced at the time of admission
  - (a) Admit Card issued by CEE.
  - (b) Certificate to prove Date of Birth.
  - (c) Original Mark List to prove academic eligibility.
  - (d) Pass Certificate (if obtained).
  - (e) Allotment letter issued by the CEE.
  - (f) Any other documents as mentioned in Clause 11.7.1

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2017

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Phone: 0471 - 2332120, 2338487  
[www.cee-kerala.org](http://www.cee-kerala.org)

**IMPORTANT INFORMATION**

1. Candidates applying for admission to any of the following courses- Engineering, Architecture, MBBS, BDS, Ayurveda, Homoeopathy, Siddha, Unani, Agriculture, Forestry, Veterinary and Fisheries- should apply online and send a printout to the CEE on or before the last date.
2. Online submission of Application may be made by accessing CEE website - [www.cee.kerala.gov.in](http://www.cee.kerala.gov.in)
3. Copy of the printout of the Application form must be retained for future reference.
4. Applicant should ensure the following before sending the printout of the application form:
  - i. All certificates furnished are properly filled in and signed by the competent authority and affixed office seal at specified place.
  - ii. The photograph uploaded online and the photograph pasted in the printout of application form should be identical and properly attested by Head of the Institution or Gazetted Officer of Government.
  - iii. The applicant should select the course/courses which he/she desires to study while applying online.
  - iv. The candidate should maintain confidentiality of the key number obtained prior to the Centralized Allotment Process (CAP) and keep it in safe custody till the end of allotment process.
5. No memo will be sent by post from this office in the case of defective applications. The defects, if any, which will be displayed on the website while downloading the admit card should be rectified within the specified period.
6. Candidates should send only one application for admission to any or all of the courses in KEAM 2017.
7. Candidates except SC/ST/OEC category should submit income certificate also along with the printout of application for availing income based fee concession/ scholarship.
8. **Online Option Confirmation** is mandatory for participating in each phase of allotment.

**പ്രത്യേക ശ്രദ്ധയ്ക്ക്**

1. എഞ്ചിനീയറിംഗ്, ആർക്കിടെക്ചർ, എം.ബി.ബി.എസ്, ബി.ഡി.എസ്, ആയുർവേദ, ഹോമിയോപ്പതി, സിദ്ധ, യുനാനി, അഗ്രിക്കൾച്ചർ, ഫോറസ്റ്റ്രി, വെറ്ററിനറി, ഫിഷറീസ് എന്നിവയിൽ ഏതെങ്കിലും കോഴ്സുകളിൽ പ്രവേശനം ആഗ്രഹിക്കുന്ന വിദ്യാർത്ഥികൾ പ്രവേശന പരീക്ഷാ കമ്മീഷണറുടെ വെബ്സൈറ്റിലൂടെ ഓൺലൈനായി അപേക്ഷിക്കേണ്ടതും, അപേക്ഷയുടെ പ്രിന്റൗട്ട് പ്രവേശന പരീക്ഷാ കമ്മീഷണറുടെ ഓഫീസിൽ യഥാസമയം എത്തിക്കേണ്ടതുമാണ്.
2. പ്രവേശന പരീക്ഷാ കമ്മീഷണറുടെ [www.cee.kerala.gov.in](http://www.cee.kerala.gov.in) എന്ന വെബ്സൈറ്റ് വഴിയാണ് ഓൺലൈനായി അപേക്ഷിക്കേണ്ടത്.
3. പ്രവേശന പരീക്ഷാ കമ്മീഷണറുടെ ഓഫീസിലേയ്ക്ക് അയയ്ക്കുന്ന അപേക്ഷയുടെ ഒരു പകർപ്പ് അപേക്ഷകൻ സൂക്ഷിക്കേണ്ടതാണ്.
4. അപേക്ഷയുടെ പ്രിന്റൗട്ട് പ്രവേശന പരീക്ഷാ കമ്മീഷണറുടെ ഓഫീസിൽ എത്തിക്കുമ്പോൾ താഴെപ്പറയുന്ന കാര്യങ്ങൾ ഉറപ്പുവരുത്തുക.
  - i. അപേക്ഷയോടൊപ്പം സമർപ്പിക്കുന്ന സർട്ടിഫിക്കറ്റുകൾ പൂർണ്ണമായും പൂരിപ്പിച്ച് യഥാസ്ഥാനങ്ങളിൽ അധികാരപ്പെട്ട ഉദ്യോഗസ്ഥർ ഒപ്പും സീലും പതിപ്പിച്ചിട്ടുണ്ടായിരിക്കണം.
  - ii. അപേക്ഷ ഓൺലൈനായി സമർപ്പിക്കുമ്പോൾ 'അപ്ലോഡ് ചെയ്ത ഫോട്ടോയുടെ തന്നെ പകർപ്പ് അപേക്ഷയുടെ പ്രിന്റൗട്ടിൽ യഥാസ്ഥാനത്ത് ഒട്ടിച്ച് വിദ്യാർത്ഥി പഠിക്കുന്ന സ്ഥാപനമേധാവിയോ ഒരു സർക്കാർ ഗസറ്റഡ് ഓഫീസറോ സാക്ഷ്യപ്പെടുത്തി ഒപ്പും സീലും പതിപ്പിക്കേണ്ടതാണ്.
  - iii. അപേക്ഷകൻ പഠിക്കാൻ ആഗ്രഹിക്കുന്ന കോഴ്സോ, കോഴ്സുകളോ ഓൺലൈനായി അപേക്ഷ സമർപ്പിക്കുമ്പോൾ സെലക്ട് ചെയ്യേണ്ടതാണ്.
  - iv. അപേക്ഷകൻ കേന്ദ്രീകൃത അലോട്ട്മെന്റിനു മുൻപായി ലഭിക്കുന്ന കീ നമ്പറിന്റെ രഹസ്യ സ്വഭാവം വെളിപ്പെടുത്താൻ പാടില്ലാത്തതും അലോട്ട്മെന്റ് പ്രക്രിയ അവസാനിക്കുന്നതു വരെ സൂക്ഷിതമായി സൂക്ഷിക്കേണ്ടതുമാണ്.
5. അപേക്ഷയിലെ അപാകതകളെ സംബന്ധിച്ച് ഈ ഓഫീസിൽ നിന്നും തപാൽ വഴി അറിയിപ്പുണ്ടാകുന്നതല്ല. വിദ്യാർത്ഥികൾ അഡ്മിറ്റ് കാർഡ് ഡൗൺലോഡ് ചെയ്യാൻ ശ്രമിക്കുമ്പോൾ അപാകതകളെ സംബന്ധിച്ച് വിവരങ്ങൾ വെബ്സൈറ്റിൽ ദൃശ്യമാകുന്നതാണ്. അവ പരിഹരിച്ച് യഥാസമയം ഈ ഓഫീസിൽ എത്തിക്കേണ്ടതാണ്.
6. KEAM - 2017 പ്രകാരം ഏതെങ്കിലും ഒരു കോഴ്സിനോ/എല്ലാ കോഴ്സുകളിലേയ്ക്കുമോ ഉള്ള പ്രവേശനത്തിന് ഒരു അപേക്ഷ മാത്രമേ സമർപ്പിക്കാൻ പാടുള്ളൂ.
7. എസ്.സി./എസ്.റ്റി/ഒ.ഇ.സി വിഭാഗങ്ങൾ ഒഴികെയുള്ളവർ വരുമാനത്തിന്റെ അടിസ്ഥാനത്തിലുള്ള ഫീസാനുക്യൂലം, സ്കോളർഷിപ്പ് എന്നിവ ലഭിക്കുന്നതിനായി വരുമാന സർട്ടിഫിക്കറ്റ് കൂടി അപേക്ഷയോടൊപ്പം ഹാജരാക്കേണ്ടതാണ്.
8. അലോട്ട്മെന്റിന്റെ ഓരോ ഘട്ടത്തിനും മുൻപായി **ഓൺലൈൻ ഓപ്ഷൻ കൺഫിര്മേഷൻ** നിർബന്ധമായും നടത്തേണ്ടതാണ്.

# KEAM-2017 അപേക്ഷാ സമർപ്പണത്തിനുള്ള മാർഗ്ഗ നിർദ്ദേശങ്ങൾ

## ഓൺലൈൻ അപേക്ഷ സമർപ്പിക്കുന്ന വിധം:

[www.cee.kerala.gov.in](http://www.cee.kerala.gov.in) എന്ന വെബ്സൈറ്റിലൂടെ ഓൺലൈൻ അപേക്ഷ സമർപ്പിക്കുന്നതിന് അപേക്ഷാർത്ഥിയുടെ പാസ്‌പോർട്ട് സൈസ് ഫോട്ടോ, ഒപ്പ്, ഇടതു പെരുവിരലടയാളം (എല്ലാം jpeg ഫോർമാറ്റിലുള്ളവ), സാധുവായ ഇ-മെയിൽ ഐ.ഡി, മൊബൈൽ ഫോൺ നമ്പർ എന്നിവ ആവശ്യമാണ്.

**സ്റ്റേപ്പ് 1: രജിസ്ട്രേഷൻ:-** അപേക്ഷാർത്ഥിയുടെ പേര്, ജനനത്തീയതി, ഇ-മെയിൽ ഐ.ഡി, മൊബൈൽ ഫോൺ നമ്പർ, പാസ്‌വേഡ്, കാപ്ച് കോഡ് എന്നിവ നൽകി രജിസ്ട്രേഷൻ പൂർത്തിയാക്കുക. അപ്പോൾ ലഭ്യമാകുന്ന ആപ്ലിക്കേഷൻ നമ്പർ പിന്നീടുള്ള ആവശ്യങ്ങൾക്കായി കുറിച്ചുവയ്ക്കുക.

**സ്റ്റേപ്പ് 2: ഇമേജുകൾ അപ്‌ലോഡ് ചെയ്യൽ:-** അപേക്ഷാർത്ഥിയുടെ പാസ്‌പോർട്ട് സൈസ് ഫോട്ടോ, ഒപ്പ്, ഇടതു പെരുവിരലടയാളം (എല്ലാം jpeg ഫോർമാറ്റിലുള്ളത്) എന്നിവ നിർദ്ദേശങ്ങൾക്കനുസൃതമായി അപ്‌ലോഡ് ചെയ്യണം.

**സ്റ്റേപ്പ് 3: അപേക്ഷയിൽ വിവരം നൽകൽ:-** അപേക്ഷയിൽ ആവശ്യപ്പെട്ടിട്ടുള്ള വിവരങ്ങൾ കൃത്യമായി നൽകേണ്ടതാണ്. എഞ്ചിനീയറിംഗ്, ആർക്കിടെക്ചർ, മെഡിക്കൽ/അനുബന്ധ കോഴ്സുകൾ എന്നിവയെല്ലാം ഒരു അപേക്ഷയിൽ തന്നെ തെരഞ്ഞെടുക്കാവുന്നതാണ്.

സാമുദായിക സംവരണം ( SC/ ST/ OEC/ SEBC വിഭാഗങ്ങൾ), ശാരീരിക വൈകല്യമുള്ളവർക്കുള്ള സംവരണം, ക്ലോസ് 5.2-ൽ കൊടുത്തിട്ടുള്ള പ്രത്യേക സംവരണം എന്നിവ ആവശ്യമുള്ളവർ ഓൺലൈൻ അപേക്ഷയിൽ നിശ്ചിത സ്ഥാനത്ത് രേഖപ്പെടുത്തിയിരിക്കണം. നൽകിയ വിവരങ്ങളെല്ലാം കൃത്യവും, പൂർണ്ണവുമാണെന്ന് ബോധ്യപ്പെട്ടാൽ Final Submission നടത്താവുന്നതാണ്.

**സ്റ്റേപ്പ് 4: അപേക്ഷാ ഫീസ് ഒടുക്കൽ:-** നിർദ്ദിഷ്ട അപേക്ഷാ ഫീസ് ഓൺലൈനായോ, വെബ് സൈറ്റിൽ നിന്നും ലഭിക്കുന്ന ഇ-ചെലാൻ മുഖേന പോസ്റ്റോഫീസ്/സ്റ്റേറ്റ് ബാങ്ക് ഓഫ് ട്രാവൻകൂർ എന്നിവയുടെ തിരഞ്ഞെടുക്കപ്പെട്ട ശാഖകൾ വഴിയോ ഒടുക്കാവുന്നതാണ്.

**സ്റ്റേപ്പ് 5: അപേക്ഷയുടെ പ്രിന്റൗട്ട് എടുക്കൽ :-** ഓൺലൈൻ അപേക്ഷാസമർപ്പണം പൂർത്തിയാക്കിയ ശേഷം അപേക്ഷയുടെയും, ലഭ്യമായ മറ്റ് ഫോർമാറ്റുകളുടെയും പ്രിന്റൗട്ട് എടുക്കേണ്ടതാണ്.

**സ്റ്റേപ്പ് 6: അപേക്ഷയും, അനുബന്ധ രേഖകളും അയയ്ക്കുന്നത്:-** അപേക്ഷയുടെ പ്രിന്റൗട്ടിൽ നിശ്ചിതസ്ഥാനത്ത് ഓൺലൈനായി അപ്‌ലോഡ് ചെയ്ത ഫോട്ടോയുടെ പകർപ്പ് ഒട്ടിച്ചശേഷം വിദ്യാർത്ഥി പഠിച്ച സ്ഥാപന മേധാവിയെക്കൊണ്ട് അല്ലെങ്കിൽ ഒരു സർക്കാർ ഗസറ്റഡ് ഓഫീസറെക്കൊണ്ട് ഒപ്പും, സീലും ഫോട്ടോയിൽ പതിയത്തക്ക രീതിയിൽ സാക്ഷ്യപ്പെടുത്തി ഓഫീസ് സീൽ പതിച്ചിരിക്കണം. **ഫോട്ടോ സാക്ഷ്യപ്പെടുത്താത്ത അപേക്ഷകൾ നിരസിക്കുന്നതാണ്.**

### (a) അപേക്ഷയോടൊപ്പം നിർബന്ധമായും സമർപ്പിക്കേണ്ട രേഖകൾ

- (i) നേറ്റിവിറ്റി തെളിയിക്കുന്നതിനുള്ള രേഖ (ക്ലോസ്സ് 6.1.1 കാണുക)
- (ii) പ്ലസ്‌ട്ര/തത്തുല്യം പഠിച്ച സ്ഥാപന മേധാവി നൽകുന്ന നിശ്ചിത ഫോർമാറ്റിലുള്ള കോഴ്സ് സർട്ടിഫിക്കറ്റ് അല്ലെങ്കിൽ യോഗ്യതാ പരീക്ഷ പാസ്സായ വിദ്യാർത്ഥിയാണെങ്കിൽ യോഗ്യതാ പരീക്ഷയുടെ മാർക്ക് ലിസ്റ്റിന്റെ സ്വയം സാക്ഷ്യപ്പെടുത്തിയ പകർപ്പ്.

### (b) സാമുദായിക സംവരണം ആവശ്യമുള്ളവർ

- (i) സാമൂഹികവും, വിദ്യാഭ്യാസപരവുമായി പിന്നോക്കം നിൽക്കുന്ന (SEBC) വിഭാഗക്കാർ നിശ്ചിത മാതൃകയിലുള്ള നോൺ ക്രീമിലെയർ സർട്ടിഫിക്കറ്റ് വില്ലേജ് ഓഫീസിൽ നിന്നും വാങ്ങി അപേക്ഷയോടൊപ്പം സമർപ്പിക്കേണ്ടതാണ്.
- (ii) SC/ ST വിഭാഗക്കാർ ജാതി സർട്ടിഫിക്കറ്റ് ബന്ധപ്പെട്ട തഹസിൽദാരിൽ നിന്നും വാങ്ങി അപേക്ഷയോടൊപ്പം സമർപ്പിക്കേണ്ടതാണ്.

- (iii) മറ്റു സമുദായത്തിൽപ്പെട്ട (OEC) വിദ്യാർത്ഥികൾ വില്ലേജ് ഓഫീസർ നൽകുന്ന നോൺ ക്രിമീലെയർ സർട്ടിഫിക്കറ്റ് അപേക്ഷയോടൊപ്പം സമർപ്പിക്കേണ്ടതാണ്.
- (iv) നോൺ ക്രിമീലെയർ വിഭാഗത്തിൽ ഉൾപ്പെടാത്ത OEC അപേക്ഷകർ വിദ്യാഭ്യാസാനുകൂല്യങ്ങൾക്കു വേണ്ടി വില്ലേജ് ഓഫീസർ നൽകുന്ന ജാതി സർട്ടിഫിക്കറ്റ് അപേക്ഷയോടൊപ്പം സമർപ്പിക്കേണ്ടതാണ്.
- (v) പ്രോസ്പെക്ടസ് അനക്ഷർ **x(a)**-ൽ ഉൾപ്പെടുത്തിയിട്ടുള്ള സമുദായങ്ങളിൽപ്പെട്ട വിദ്യാർത്ഥികൾ വിദ്യാഭ്യാസാനുകൂല്യങ്ങൾ ലഭിക്കുന്നതിന് ജാതി സർട്ടിഫിക്കറ്റും, വരുമാന സർട്ടിഫിക്കറ്റും ബന്ധപ്പെട്ട വില്ലേജ് ഓഫീസറിൽ നിന്നും വാങ്ങി അപേക്ഷയോടൊപ്പം സമർപ്പിക്കേണ്ടതാണ്.

**(c) ശാരീരിക വൈകല്യമുള്ളവർക്കുള്ള സംവരണം ആവശ്യമുള്ളവർ**

ശാരീരിക വൈകല്യമുള്ളവർക്കുള്ള സംവരണം ആവശ്യമുള്ളവർ ജില്ലാ മെഡിക്കൽ ബോർഡ് നൽകിയ ശാരീരിക വൈകല്യത്തിന്റെ തോത് സൂചിപ്പിക്കുന്ന സർട്ടിഫിക്കറ്റിന്റെ സ്വയം സാക്ഷ്യപ്പെടുത്തിയ പകർപ്പ് അപേക്ഷയോടൊപ്പം സമർപ്പിക്കേണ്ടതാണ്.

**(d) പ്രത്യേക സംവരണം ആവശ്യമുള്ളവർ**

ക്ലോസ്സ് 5.2.1 മുതൽ 5.2.17 വരെയുള്ള പ്രത്യേക സംവരണത്തിന് അർഹരായിട്ടുള്ളവർ ആവശ്യമായ രേഖകൾ അപേക്ഷയോടൊപ്പം സമർപ്പിക്കേണ്ടതാണ്. (ക്ലോസ്സ് 5.2 കാണുക)

**(e) മിശ്ര വിവാഹിതരുടെ മക്കൾക്കുള്ള ആനുകൂല്യങ്ങൾക്ക്**

മിശ്ര വിവാഹിതരുടെ മക്കൾക്ക് SEBC / OEC സംവരണം ആവശ്യമുള്ള പക്ഷം അവർ വില്ലേജ് ഓഫീസിൽ നിന്നും നോൺ ക്രിമീലെയർ സർട്ടിഫിക്കറ്റ് വാങ്ങി അപേക്ഷയോടൊപ്പം സമർപ്പിക്കണം. എന്നാൽ മിശ്രവിവാഹിതരിൽ ഒരാൾ SC/ ST വിഭാഗത്തിൽപ്പെട്ടയാളാണെങ്കിൽ അവരുടെ മക്കൾക്ക് SC/ ST വിഭാഗങ്ങൾക്കു ലഭ്യമാകുന്ന ഫീസാനുകൂല്യങ്ങൾ ലഭിക്കുന്നതിന് തഹസിൽദാർ നൽകുന്ന മിശ്രവിവാഹ സർട്ടിഫിക്കറ്റ് അപേക്ഷയോടൊപ്പം ഹാജരാക്കേണ്ടതാണ്.

**(f) ഫീസാനുകൂല്യം, സ്കോളർഷിപ്പ് എന്നിവ ആവശ്യമുള്ളവർ**

SC/ ST/ OEC വിഭാഗക്കാർ ഒഴികെയുള്ള മറ്റ് വിഭാഗക്കാർ (ജനറൽ കാറ്റഗറി ഉൾപ്പെടെ) കുടുംബ വാർഷിക വരുമാനത്തിന്റെ അടിസ്ഥാനത്തിലുള്ള ഫീസ് ആനുകൂല്യങ്ങൾ/സ്കോളർഷിപ്പ് എന്നിവ ലഭിക്കുന്നതിനായി വില്ലേജ് ഓഫീസിൽ നിന്നുള്ള വരുമാന സർട്ടിഫിക്കറ്റ് അപേക്ഷയോടൊപ്പം സമർപ്പിക്കേണ്ടതാണ്.

പൂർണ്ണമായ അപേക്ഷകൾ നിശ്ചിത തീയതിയ്ക്കകം **Commissioner for Entrance Examinations, 5<sup>th</sup> Floor, Housing Board Buildings, Santhinagar, Thiruvananthapuram-695001** എന്ന വിലാസത്തിൽ ലഭ്യമാക്കേണ്ടതാണ്.

- ❖ ബന്ധപ്പെട്ട അധികാരികൾ നൽകുന്ന സർട്ടിഫിക്കറ്റുകളിലെ എല്ലാ വരികളും/കോളങ്ങളും പൂരിപ്പിച്ചിട്ടുണ്ടെന്നും, അധികാരിയുടെ ഒപ്പ്, ഉദ്യോഗപ്പേരുള്ള സീൽ, ഓഫീസ് സീൽ എന്നിവ പതിച്ചിട്ടുണ്ടെന്നും ഉറപ്പ് വരുത്തേണ്ടതാണ്.
- ❖ നിശ്ചിത മാതൃകയിൽ ബന്ധപ്പെട്ട അധികാരികൾ നൽകുന്ന എല്ലാ സർട്ടിഫിക്കറ്റുകളുടെയും അസ്സൽ അപേക്ഷയോടൊപ്പം സമർപ്പിക്കേണ്ടതാണ്.
- ❖ പൂർണ്ണമായ അപേക്ഷയുടെ ഒരു പകർപ്പ് പിന്നീടുള്ള ആവശ്യങ്ങൾക്കായി വിദ്യാർത്ഥി സൂക്ഷിക്കേണ്ടതാണ്.
- ❖ അപേക്ഷയോടൊപ്പമല്ലാതെ ഹാജരാക്കുന്ന സർട്ടിഫിക്കറ്റുകൾ/രേഖകൾ പരിഗണിക്കുന്നതല്ല.

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## 1. INTRODUCTION

- 1.1 Prospectus for Admission to Professional Degree Courses 2017, which has been approved by the Government of Kerala, is published herewith. It contains general information and rules relating to the Entrance Examinations for Admission to Professional Degree Courses 2017, and other connected matters. Candidates are required to go through the Prospectus carefully and acquaint themselves with all the relevant information relating to the examinations/allotments. Candidates are also requested to visit the official website of the Commissioner for Entrance Examinations 'www.cee-kerala.org' regularly for notifications and announcements.
- 1.2 (a) The prospectus issued in previous years is not valid for the year 2017.  
(b) The English Version of the Prospectus shall only be considered as authentic, in the case of dispute in any of the Clauses of the Prospectus for admission to Professional Degree Courses, 2017 (KEAM-2017).
- 1.3 This prospectus sets out the rules and regulations for selection and admission to the following professional degree courses conducted by the various authorities within the State of Kerala.
- 1.3.1 **Engineering Courses :**  
Bachelor of Technology [(B.Tech.)includes all Courses listed in Annexure II (1)(b)]  
B.Tech. (Agricultural Engineering) [B.Tech. (Agri. Engg.)]  
B.Tech. (Food Engineering & Technology) [B.Tech. (Food Engg. & Tech)]  
B.Tech. (Dairy Technology)  
B.Tech. (Food Technology) [B.Tech. (Food Tech)]  
B.Tech. (Food Science & Technology) [B.Tech. (Fd. Sc. Tech)]
- 1.3.2 **Architecture Course :**  
Bachelor of Architecture (B.Arch.)
- 1.3.3 **Medical Courses :**  
Bachelor of Medicine and Bachelor of Surgery (MBBS)  
Bachelor of Dental Surgery (BDS)  
Bachelor of Ayurvedic Medicine and Surgery (BAMS)  
Bachelor of Siddha Medicine and Surgery (BSMS)  
Bachelor of Homoeopathic Medicine and Surgery (BHMS)  
Bachelor of Unani Medicine and Surgery (BUMS)
- 1.3.4 **Agriculture & Forestry Courses :**  
Bachelor of Science-Agriculture [BSc.(Hons.) Agri.]  
Bachelor of Science-Forestry [BSc.(Hons.) Forestry]
- 1.3.5 **Veterinary Course :**  
Bachelor of Veterinary Science & Animal Husbandry (BVSc. & AH)
- 1.3.6 **Fisheries Course :**  
Bachelor of Fisheries Science (BFSc.)
- 1.4 a) Admission to Engineering courses shall be regulated on the basis of merit as assessed by giving equal weightage of 50:50 to the marks obtained in the Entrance Examination for Engineering (Paper I & Paper II put together), and the grade/marks obtained for Mathematics, Physics and Chemistry put together in the final year of the qualifying examination, after effecting the standardization procedure as described in Clause 9.7.4(b), for computing the Index mark out of 600. In case, the candidate has not studied Chemistry, the marks obtained in Computer Science shall be considered. In case, the candidate has not studied Chemistry and Computer Science, the marks obtained in Biotechnology shall be considered. In case, the candidate has not studied Chemistry, Computer Science and Biotechnology, the marks obtained in Biology shall be considered. The marks as shown in the mark list obtained from the Board of Examination of respective Higher Secondary Board shall be considered for academic eligibility.
- b) For admissions to the Architecture course\*, the merit as assessed by giving equal weightage to the marks obtained in the 'National Aptitude Test in Architecture' [NATA], conducted by the Council of Architecture (COA), and the grade/marks in the qualifying examination will be the criterion. [\*As per directives of the Council of Architecture, India.]
- c) Admission to Medical courses, Agriculture, Forestry, Veterinary and Fisheries courses are regulated on the basis of merit as assessed in the National Eligibility cum Entrance Test (NEET-UG 2017) conducted by the CBSE.



- 1.5 The Rank lists shall include all candidates qualified in the respective Entrance Examinations conducted by the Commissioner for Entrance Examinations, Kerala/CBSE, irrespective of their academic eligibility and category (For admission purposes refer clauses 6.2, 9.7.11(c), 11.4.6 and 11.7.2).
- 1.6 This Prospectus is subject to modification/addition/deletion, as may be deemed necessary by the Government.
- 1.7 Allotment of seats from the Rank Lists for all courses in Self-financing colleges will be made in accordance with the orders of the Hon'ble Supreme Court of India / Hon'ble High Court of Kerala or orders of the Govt. of Kerala/Govt. of India/ as per the law in existence at the time of Centralised Allotment Process (CAP) and will be notified separately.
2. **COURSES, INSTITUTIONS AND SEATS**
- 2.1 **Categorization of Seats in Government and Aided Institutions:**
- 2.1.1 **Government seats:** Merit seats against which the Commissioner for Entrance Examinations makes allotment are called 'Government Seats'.
- (a) Government seats are available in all the Govt. and Aided Colleges.
- (b) The availability of Government seats in Self-financing Colleges run by institutions under Govt. control and Private Self-financing colleges will be notified separately. Those candidates who seek admission in Private Self-financing colleges are bound to accept the conditions stipulated in the agreement between Government and Self-financing College Management(s) and deemed to have accepted such conditions.
- 2.1.2 **Management Seats:** The seats set apart in the Aided institutions, to be filled up by the Managements concerned are called Management Seats.
- 2.2 **Categorization of Seats in Self-Financing Institutions:**
- The categorization of seats in Self-financing Colleges run by institutions under Govt. control and other Private Self-financing colleges will be notified separately.
- 2.3 **Engineering Courses:**
- 2.3.1 The B.Tech. Degree courses affiliated to various Universities in Kerala, under the semester scheme of studies comprise eight semesters.
- 2.3.2 The B.Tech. (Agricultural Engineering) and the B.Tech. (Food Engineering & Technology) courses under the Kerala Agricultural University [KAU].
- 2.3.3 The B.Tech. (Dairy Technology) and B.Tech (Food Technology) courses under the Kerala Veterinary and Animal Sciences University [KVASU].
- 2.3.4 The B.Tech. (Food Science & Technology) course under the Kerala University of Fisheries and Ocean Studies [KUFOS].
- 2.3.5 The list of Engineering Colleges and the courses offered are given in **Annexure II (1)(a), VII(1), VII(2)**. The list is tentative and not complete. The final list will be published by the CEE, prior to commencement of the Centralised Allotment Process 2017 (CAP- 2017).
- 2.4 **Architecture Course:** B.Arch. Degree course extends over 10 semesters including one semester for practical training and one semester for thesis work. (Refer to Annexure II (1)(a) for the Institutions offering the B.Arch. Course). The list is tentative and not complete. The final list will be published prior to the commencement of the CAP- 2017.
- 2.5 **Medical Courses:**
- 2.5.1 The Medical courses include MBBS, BDS, BAMS, BSMS, BHMS & BUMS under the Kerala University of Health Sciences.
- 2.5.2 The list of institutions in which Medical courses are offered, the number of seats available, etc. are given in **Annexure III (1), IV (1), V (1), VI (1) & VI (2)**. The list is tentative and not complete. The final list will be published prior to the commencement of CAP- 2017.
- 2.6 **Agriculture and Forestry Courses (Under Kerala Agricultural University):** The list of colleges, the courses offered, the number of seats available, etc. are given in Annexure VII (1).
- 2.7 **Veterinary Course (Under Kerala Veterinary & Animal Sciences University):** The list of Veterinary colleges, the number of seats available, etc. are given in Annexure VII (2).
- 2.8 **Fisheries Course (Under Kerala University of Fisheries & Ocean Studies):** The list of Fisheries colleges, the number of seats available, etc. are given in Annexure VII (3).
- 2.9 Allotment and admission to all Colleges/Courses under Engineering/Architecture/Medical/ Agriculture/Veterinary/Fisheries streams will be subject to the receipt of approval of the Central and State Regulatory Bodies, Universities and Government.

### 3. DURATION OF THE COURSES

Course	Duration (Years)	Compulsory rotating internship
MBBS, BDS, BHMS, BAMS, BUMS, BSMS	4½	12 months programme
BSc. (Hons.) Agri., BSc. (Hons.) Forestry, BSc., B.Tech. (Agri. Engg.), B.Tech. (Food Engg. & Tech), B.Tech. (Dairy Technology), B.Tech (Food Technology), B.Tech (Food Science & Technology)	4	1 semester*
BVSc. & AH	4½	12 months
B.Tech.	4 (8 Sem.)	
B.Arch.	5 (10 Sem.)	6 months*

\*Included in Course Duration

### 4. RESERVATION OF SEATS FOR VARIOUS COURSES

4.1 **Types of Reservation in Government/Aided/KAU/KVASU/KUFOS Colleges :** Out of the total seats available for the various courses, seats will be reserved for different categories as given under Clauses 4.1.1 to 4.1.5.

4.1.1 **Reservation for All India Quota for MBBS/BDS Courses :** Fifteen percent of the total sanctioned seats in MBBS/BDS Courses in Govt. Medical/Dental Colleges in the State are set apart for the allotment of the candidates by the Director General of Health Services, Government of India. [Refer Clause 4.1.11(a)]

4.1.2 **Reservation for Nominees :** These are the seats set apart for the nominees of the Government of India, Union Territories or other States for the various courses. [For details, refer Clauses 4.1.11 (b), 4.1.12, 4.1.13, 4.1.14]

4.1.3 **Reservation for Persons with Disabilities :** Leaving the seats set apart under Clauses 4.1.1 and 4.1.2 above, three percent of the seats available for the state for allotment from the Entrance rank lists, for all the courses in all the Government and Aided colleges are reserved for the candidates with disabilities. [For details, refer Clause 5.3]

4.1.4 **Special Reservation :** These are the seats reserved for certain specific categories, for different courses. [For details, refer Clause 5.2]

4.1.5 **Mandatory Reservation :** Leaving the seats set apart for All India Quota, Government of India Nominees, Special reservations, Persons with Disabilities and Management Quota, the remaining Government seats for each course in Govt./Aided/KAU/KVASU/KUFOS Colleges will be distributed as per the mandatory reservation principle as contemplated in G.O. (P) 208/66/Edn. Dated 2.5.1966, G.O.(Ms)No.95/08/SCSTDD Dated 06.10.2008, GO(Ms) No. 10/2014/BCDD Dated 23.05.2014 and as modified from time to time.

The percentage break-up of seats as per mandatory reservation is as follows:

(A)	State Merit (SM)	- 60%
(B)	Socially and Educationally Backward Classes (SEBC)	- 30%
	a. Ezhava (EZ)	- 9%
	b. Muslim (MU)	- 8%
	c. Other Backward Hindu (BH)	- 3%
	d. Latin Catholic and Anglo Indian (LA)	- 3%
	e. Dheevara and related communities (DV)	- 2%
	f. Viswakarma and related communities (VK)	- 2%
	g. Kusavan and related communities (KN)	- 1%
	h. Other Backward Christian (BX)	- 1%
	i. Kudumbi (KU)	- 1%
(C)	Scheduled Castes & Scheduled Tribes	- 10%
	a. Scheduled Castes (SC)	- 8%
	b. Scheduled Tribes (ST)	- 2%

**Note:** As per GO(Ms) No. 46/2015/SCSTDD dated: 23.06.2015, the reservation pattern in Govt. Medical College, Palakkad (Institute of Integrated Medical Sciences, Palakkad) will be as follows: Scheduled Caste - 70%, Scheduled Tribe - 2%, General Merit - 13% and All India Quota- 15%.

- 4.1.6 The total number of seats available for the different courses will be published prior to the commencement of **CAP-2017**.
- 4.1.7 Admission to all the Government seats except the seats reserved for All India Quota for MBBS/BDS and Nominees will be made on the basis of respective rank lists/inter-se merit as may be applicable.
- 4.1.8 The number of seats earmarked for various categories for the different courses in Government and Aided Colleges will be finalised before **CAP-2017**.
- 4.1.9 **Reservation of seats for Engineering Courses [B.Tech.]** : The number of seats reserved for Government of India Nominees, Reciprocal quota and Special reservation categories is given in Annexure II (2) (a).
- 4.1.10 **Reservation of seats for B.Arch. Course** : The number of seats reserved for Government of India Nominees and Special reservation categories is given in Annexure II (2)(a).
- 4.1.11 **Reservation of seats for MBBS & BDS Courses**
- (a) **Reservation of seats under All India Quota:**  
The seats reserved under All India Quota for MBBS and BDS Courses in Government Medical/Dental Colleges will be allotted by the Director General of Health Services, New Delhi, on the basis of the rank obtained in the NEET-UG conducted by the CBSE, New Delhi. Details of seats are given in Annexure III (2).
- (b) **Reservation of seats for Nominees:**
- (i) **Nominees of the Government of India:** The Government of India, subject to the eligibility conditions in clause 6, will make Nominations to these seats. The distribution of seats under this category and other details in respect of MBBS/BDS courses are available in Annexure III (2).
- (ii) **Nominees from Union Territory of Andaman & Nicobar Islands** : These seats are reserved for the candidates of Kerala origin settled in the Union Territory of Andaman and Nicobar Islands. Nominations to these seats will be made by the Administration of that Union Territory and the candidates must possess the requisite qualifications as provided under Clause 6. The distribution of seats is given in Annexure III (2).
- (iii) **Nominees from Lakshadweep:** Seats are reserved for the candidates of Kerala origin settled in Lakshadweep. The candidates should be sponsored by the Administration of that Union Territory and must possess the requisite qualifications as per Clause 6. The distribution of seats is given in Annexure III (2).
- (iv) **Nominee from Jammu & Kashmir:** One seat for MBBS will be reserved in a Govt. Medical College (by rotation every year in the order TVM, ALP, KTM, TCM, KKM, MLP and CMC) for a nominee from Jammu & Kashmir. Candidate to this seat should be sponsored by the Government of Jammu and Kashmir through the Higher Education Secretary of the State. This year, the seat will be reserved in Government Medical College, Kozhikode [See Annexure III(2)].
- Admission to the seats under 4.1.11(b)(i) to 4.1.11(b)(iv) above should be completed by the admitting authority by **26.08.2017**. The Director of Medical Education will inform the CEE, through Government of Kerala, the un-availed seats in these categories on **27.08.2017** itself. Such seats will be reverted to the mandatory quota.
- 4.1.12 **Reservation of seats for BHMS Course** : The number of seats reserved under nominees and special reservation categories are given in Annexure IV (2).
- 4.1.13 **Reservation of seats for BAMS Course** : The number of seats reserved under nominees and special reservation categories are given in Annexure V (2).
- 4.1.14 **Reservation of seats for Courses under the Kerala Agricultural University** : [BSc. (Hons.) Agri., BSc. (Hons.) Forestry, B.Tech. (Agri. Engg.), B.Tech. (Food Engg. & Tech)], **Kerala Veterinary & Animal Sciences University** : [BVSc & AH, B.Tech. (Dairy Technology.) and B.Tech (Food Technology)], **Kerala University of Fisheries & Ocean Studies** : BFSc, B.Tech (Food Science & Technology).
- (a) The number of seats reserved for the various special reservation categories is given in Annexure VII (4).
- (b) The seats available for Agriculture, Veterinary and Fisheries courses in Annexure VII (4) will be filled only with the concerned category of candidates. If students are not available in the respective category, the seats will be filled from the General quota. (Also refer to Clause 5.2.15)

- (c) One seat is reserved for Jewish Community, for one of the courses on rotation basis in the order of BSc. (Hons.) Agri., BVSc & AH, BSc. (Hons.) Forestry, B.Tech. (Agri. Engg.) and B. Tech. (Dairy Technology). This year the seat is reserved in BSc. (Hons.) Forestry Course.  
One seat is reserved for Jewish Community, for BFSc Course.

4.2 **Types of reservation in Self financing Colleges:** The reservation of seats in Self-financing Colleges run by institutions under Govt. control and Private Self-financing colleges will be notified separately.

## 5. CLAIMS FOR RESERVATION AND CERTIFICATES TO BE PRODUCED

**Note:** (i) Claims for Special/Mandatory reservations must be made by a candidate at the time of submission of application with supporting documents as required. The claim has to be specified in the application in the appropriate places. Claims made after the submission of application will not be entertained even if supporting evidences are produced. The claims for Special and Mandatory reservation once made in the application cannot be altered by the candidate under any circumstance.

(ii) Only candidates belonging to 'Keralite' category as defined in Clause 6.1(i), are eligible for claiming seats under Mandatory quota in Government/Aided Colleges, and Special reservation quota unless otherwise specified in the prospectus. Details of reservation of seats, if any, in Self-financing colleges will be notified separately.

5.1 **Reservation for Nominees:** The categories of candidates who are entitled to the Central Government reserved seats for admission to MBBS/BDS courses, and the authorities to whom applications are to be sent, are given in Annexure III (3). Categories of candidates who are entitled for reservation under nominees for BHMS & BAMS courses are available in Annexure IV (2) & V (2) respectively.

### 5.2 Claim for Special Reservation:

(i) **Selection under special reservation categories for admission to MBBS and BDS courses**

In the case of special reservation seats earmarked for MBBS & BDS courses, which are filled on the basis of the Kerala State Rank List of NEET-UG 2017 prepared by the CEE, only those candidates satisfying the eligibility conditions as per Clauses 6 and 9.7.5(ii) will be considered.

In the case of candidates whose admissions are governed by inter-se merit list, only those candidates who figure in the Kerala State Rank List of NEET-UG 2017 as stipulated in pre-para will be considered while preparing the inter-se merit list for admission to MBBS/BDS courses.

(ii) All the candidates seeking admission under the 'Special Reservation Categories' will have to appear for the Entrance Examination concerned and find place in the respective rank list. In case the admissions are based on inter-se merit list, only those candidates who have been included in the respective rank lists will be considered for preparing the inter-se merit list.

(iii) Candidates should mention the item of reservation claimed in the relevant columns in the application and should be otherwise eligible as per Clause 6.

(iv) Candidates should attach original certificates in the prescribed format along with the printout of the application, as mentioned for each item, in support of the claim from Clauses 5.2.1 to 5.2.13.

(v) Selection to the seats mentioned from 5.2.1 to 5.2.14 will be made on the basis of rank in the respective rank list. Selection to the seats mentioned from 5.2.15 to 5.2.17 will be made on the basis of the inter-se merit of the candidates in the merit list prepared for the purpose. For special reservations mentioned from 5.2.15 to 5.2.17, only those candidates who are included in the respective rank list will be considered for inclusion in the inter-se merit list.

(vi) In cases where candidates are to be allotted to the 'Special Reservation' seats of Engineering/Architecture/Medical/Agriculture/Veterinary/Fisheries courses on the basis of inter-se merit list, the authorities concerned will forward to the Commissioner for Entrance Examinations, the preliminary merit list of candidates prepared on the basis of the proficiency of the candidate in the respective fields. Such preliminary proficiency list should reach the Office of the Commissioner for Entrance Examinations on or before 30<sup>th</sup> April 2017. Lists received after this date will not be entertained under any circumstance and such seats will be merged to the Mandatory reservation quota.

(vii) Seats under Special Reservation in Self-financing colleges, if available, will be notified separately. Such seats, if any, will not be shifted to Government/Aided colleges under any

circumstance. The details of Special Reservation seats earmarked in Govt./Aided Colleges are given in Annexure II (2) (a), III (2), IV (2), V (2) and VII (4).

5.2.1 **Ex-servicemen Quota (XS):** Applicants to this category should invariably produce along with the printout of the application, a certificate in **Annexure XIII (a)** obtained not earlier than six months from the last date of application from the military authorities or State/Zilla Sainik Welfare Officer to the effect that he/she is the son/daughter of ex-serviceman or an ex-serviceman himself /herself. The certificate should clearly show that the benefit of reservation has not been granted earlier to any member in the family. In the absence of the certificate, the claim will not be considered.

5.2.2 **Dependent of Defence Personnel Killed / Missing / Disabled in action (DK):** This benefit will be available to one person only from the family concerned in respect of each defence person killed in action/missing in action/disabled either during war hostilities or in peace time circumstances of which are identical to activities during operational engagements. They should invariably produce a certificate in **Annexure XIII (a)** along with the printout of the application, obtained not earlier than six months from the last date of application from the Military Authorities/Zilla Sainik Welfare Officer to the effect that he/she is the son/daughter/widow of the defence person who was killed in action or missing in action or disabled in action. In the case of disabled personnel, the certificate should specify that the concerned person was/is in receipt of disability pension. The certificate should clearly show that the benefit of reservation has not been granted earlier to any member in the family. In the absence of the certificate, the claim will not be considered.

If no suitable candidate under this category is available for the concession, as per the existing order/rules, the seats reserved for them will be given to the son/daughter/widow of the defence personnel who died in harness (HR), if they are otherwise eligible as per Clause 6. They should produce certificate in Annexure XIII (a) along with the printout of the application obtained not earlier than six months from the last date of application from Military Authority/Zilla Sainik Welfare Officer to the effect that the defence personnel had died while in service. The certificate should clearly show that the benefit of reservation has not been granted earlier to any member in the family. In the absence of the certificate, the claim will not be considered.

If there are still no suitable candidates under this category, the seats reserved for the children/widow of defence personnel killed in action/missing in action/disabled will be given to children of Serving Defence personnel or in their absence to ex-servicemen/ children of ex-servicemen.

Only one candidate from a family will be eligible for Special Reservation quota under Clauses 5.2.1 & 5.2.2.
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5.2.3 **Serving Defence Personnel (SD) :** Seats are reserved for sons/daughters of serving defence personnel from Kerala for admission to Engineering/Medical/Agricultural/Veterinary Courses. Candidates seeking reservation under this category should produce a certificate in Annexure XIII (b) along with the printout of the application obtained not earlier than six months from the last date of application from the Officer Commanding to the effect that the candidate is the son/daughter of serving defence personnel, with details of the station where he/she works at present. Certificate obtained for other purposes will not be considered.

5.2.4 **CRPF (RP):** Seats are reserved for sons/daughters of personnel serving in Para Military Forces/Dependent of Paramilitary Personnel Killed/Missed/Disabled in Action including CRPF, BSF, CISF, ITBSF etc. Candidates seeking admission under this category should produce a certificate in **Annexure XIII (b)** along with the printout of the application obtained from the Officer Commanding under whom they are serving/were serving to that effect. The certificate should have been obtained not earlier than six months from the last date for receipt of application in the Office of the Commissioner for Entrance Examinations. The purpose of issue should be shown clearly and the certificate issued for other purposes are not acceptable in any case.

**Note:-** Seats will be reserved for the candidates eligible for reservation under XS, DK, SD, RP, SP & CC categories as defined in Clauses 5.2.1 to 5.2.4, 5.2.16 & 5.2.17 above in Private Self Financing Engineering/ Architecture Colleges as listed in Annexure II (2) (b).

5.2.5 **Jewish (JW) Quota** (For MBBS/BDS courses): One seat each will be reserved for Jewish community for admission to MBBS and BDS. In case candidates from the community become unavailable, the seat will merge with the mandatory reservation quota. The selection will be on the basis of the Kerala State Rank List of NEET-UG 2017 prepared by the CEE. The

candidate claiming reservation under the Jewish community quota should obtain, in the prescribed format, a certificate from the Village Officer/Tahsildar to the effect that he/she belongs to Jewish community. Such candidates need not produce the income certificate for claiming reservation under this quota. However such candidates desirous of being considered for any fee concession/ scholarship/ any other benefits, based on annual family income should produce Income Certificate from concerned Village Officer, along with the Printout of the application itself.

- 5.2.6 **Degree holders in MBBS, BHMS/Diploma holders in Homoeopathy (OA)** (For BAMS course) : One seat in BAMS course will be reserved for the candidates having MBBS Degree/DHMS/ BHMS Degree recognised by any one of the Universities in Kerala, subject to the eligibility conditions under clause 6. Admission to the course is based on the Kerala State Rank List of NEET-UG 2017 prepared by the CEE. The candidates should produce attested copies of MBBS degree/BHMS degree/DHMS certificate, as the case may be, to prove eligibility. Copies of Internship certificate and registration certificate should also be produced in support of the claim along with the printout of the application.[Refer Annexure V(2)]
- 5.2.7 **Degree / Diploma holders in Ayurveda (DA)** (For MBBS course): Seven seats are reserved for Degree/Diploma holders in Ayurveda recognized by any of the Universities in Kerala for MBBS course subject to the eligibility conditions as per Clause 6. Admission will be given to both Degree/Diploma holders without discrimination, on the basis of the Kerala State Rank List of NEET-UG 2017 prepared by the CEE. Candidates should produce copies of (a) Degree/Diploma certificate, (b) Internship certificate, and (c) Registration certificate, in support of the claim along with the printout of the application. [Refer Annexure III (2)]
- 5.2.8 **Degree/Diploma holders in Homoeopathy (DH)** (For MBBS course): Four seats in the MBBS course are reserved for holders of Degree/Diploma in Homoeopathy recognised by the Government under the schedule to the T.C. Medical Practitioners' Act, 1953 subject to the eligibility conditions in Clause 6. Admission will be given to both the Degree/Diploma holders without discrimination, on the basis of the Kerala State Rank List of NEET-UG 2017 prepared by the CEE. Candidates should produce copies of (a) Degree/Diploma certificate, (b) Internship certificate, and (c) Registration certificate in support of the claim, along with the printout of the application.[Refer Annexure III (2)]
- Note:** The candidates applying for the quota of seats specified under Clauses 5.2.6, 5.2.7 & 5.2.8 should complete their internship before the last date of receipt of KEAM-2017 applications in the Office of the Commissioner for Entrance Examinations, Thiruvananthapuram.
- 5.2.9 **Degree Holders in MBBS/BAMS/BVSc & AH/ BSc (Hons) Agri/ BFSc/ BSc(Hons) Forestry (OH)** (For BHMS Course): One seat in BHMS Course will be reserved for the candidates having MBBS/BAMS/BVSc.& AH/BSc.(Hon.) Agri./BFSc./BSc.(Hon.) Forestry Degree recognised by any of the Universities in Kerala. Admission will be given on the basis of the Kerala State Rank List of NEET-UG 2017 prepared by the CEE and subjected to the eligibility conditions in Clause 6. Candidates should attach with the printout of the application, copy of the Degree certificate and if the degree has been taken from outside the State, an eligibility/equivalency certificate of the degree from any of the Universities in Kerala, should also be attached with the printout of the application.
- 5.2.10(i) **Nurse-Allopathy (NQ):** One seat under this quota for MBBS course is reserved for Nurses (Allopathy) in regular service under Government of Kerala. Candidates should attach a Service Certificate in **Annexure XIV** from the Head of Office, stating that the candidate is a Regular Employee in the State Government Service. Admission will be given on the basis of the Kerala State Rank List of NEET-UG 2017 prepared by the CEE and subjected to the eligibility conditions in Clause 6. The candidate should also attach a Registration Certificate issued by the Kerala Nurses & Midwives Council. The candidates who have undergone Nursing Course outside the State should obtain the Registration Certificate issued by the Nursing Council of respective State. The certificates should be attached along with the printout of the application.
- (ii) **Nurse/Pharmacist-Homoeopathy (NH):** In the case of BHMS course one seat is reserved for Nurses/Pharmacist(Homoeo) and such candidate should have passed the Higher Secondary or equivalent examination in addition to the Government recognised course in Nursing/ Pharmacy (Homoeo). Admission will be given on the basis of the Kerala State Rank List of NEET-UG 2017 prepared by the CEE.. Candidate should attach a service certificate in **Annexure XIV** obtained from the Head of the Office in Kerala stating that he/she is a regular employee in Government service working as Nurse/Pharmacist (Homoeo).

- (iii) **Nurse-Ayurveda (NY):** In the case of BAMS course one seat is reserved for Nurses (Ayurveda) and such candidate should have passed the Higher Secondary or equivalent examination. Admission will be given on the basis of the Kerala State Rank List of NEET-UG 2017 prepared by the CEE. Candidate should attach a service certificate in **Annexure XIV** obtained from the Head of the Office in Kerala, stating that he/she is a regular employee in Government service working as Nurse (Ayurveda).
- 5.2.11 **Children of Agriculturists for BSc.(Hons.) Agri. and BVSc. & AH Courses (CA):** An agriculturist should be a person whose main source of income is derived from the agricultural sources including agricultural labour. The parent or guardian of the student shall not be an assessee of Income Tax. The non-agricultural income of the parents or guardian should not be more than Rs.12000/- per annum. The Agricultural income and non-agricultural income of the parent/guardian of the applicant should specifically be mentioned in the income certificate issued by the competent authority not below the rank of Village Officer of the Revenue Department in the prescribed format in **Annexure XVI** along with the printout of the application for KEAM-2017.
- 5.2.12 **Children of Farm Labourers of KAU for BSc.(Hons.) Agri., B.Sc (Hons) Forestry Courses (LG), BVSc&AH course under KVASU (LV), BFSc course under KUFOS (LF):** Candidates seeking reservation under the quota for children of farm labourers of Kerala Agricultural University/Kerala Veterinary and Animal Sciences University/Kerala University of Fisheries and Ocean Studies should furnish a certificate along with the printout of the application obtained from the Officer concerned in charge of the farm of the Kerala Agricultural University/ Kerala Veterinary and Animal Sciences University/Kerala University of Fisheries and Ocean Studies to that effect. The seats under this quota in BSc.(Hons.) Agri. and B.Sc (Hons) Forestry Courses are reserved for Children of Farm Labourers of KAU. The seats under this quota in BVSc & AH course is reserved for Children of Farm Labourers of KVASU. The seats under this quota in BFSc course is reserved for Children of Farm Labourers of KUFOS. Note: The term 'farm labourers' will mean permanent labourers only.
- 5.2.13 **Children of Fishermen for BFSc. Course (CF):** Fishermen are those whose profession is fishing and their main source of income is from fishing. Candidates seeking admission under the quota for children of fishermen should be son/daughter/dependent of a fisherman.
- (i) The applicant under this quota should furnish a dependency certificate stating that he/she is son/daughter/dependent of the fisherman and also to submit an income certificate stating that the annual family income of the applicant is not more than Rs.6 lakhs. Both certificates have to be produced in the prescribed format in Annexure XVI which is to be submitted along with the printout of the application for KEAM-2017.
- (ii) Dependants are the son/daughter/brother/sister of fishermen.
- 5.2.14 **Scouts and Guides for Engineering Courses (SG):** Two seats are reserved for Rashtrapathi Scouts and Guides for Engineering courses. Candidates seeking reservation under this quota should attach copy of the Rashtrapathi Guide Certificate signed by the President of India. In the absence of this Certificate, Specimen Certificate signed by the Director of Public Instructions (DPI), Kerala and the State Secretary, Kerala State Bharat Scouts and Guides, will be considered.
- 5.2.15 (i) **Agricultural Assistants (AG) / VHSE (Agri.) Holders (VA) / Diploma Holders in Agricultural Science (DG) [For Agricultural courses only]:** Candidates, who claim the seats reserved for Agricultural Assistants should submit their applications to the Commissioner for Entrance Examinations, through their Heads of Offices with recommendation. They have to send a photocopy of the application with attested copies of all certificates to the Registrar, Kerala Agricultural University, Main Campus, Vellanikkara, Thrissur-680656 also. Candidates who claim the seats reserved for Agricultural Assistants shall produce their relieving certificate on the date of admission.
- Candidates who claim the seats reserved for Diploma holders in Agricultural Science (DG)/ VHSE (Agri) holders (VA) shall send their application to the Commissioner for Entrance Examinations along with the attested copy of Diploma certificate in Agricultural Science/VHSE (Agri) Certificate. The allotment to the seats reserved for Diploma holders in Agricultural Science (DG)/VHSE (Agri) holders (VA) shall be based on the rank list for the Medical & Allied courses prepared by the CEE on the basis of NEET-UG 2017 rank list. To claim the seats for BSc. (Hons) Agri. Course reserved for Agricultural Assistants (AG)/Diploma Holders in Agricultural Science (DG)/VHSE (Agri) holders (VA), the candidates must take the NEET-UG 2017.

- (ii) **Live Stock Inspectors (LS)/Farm Assistant (Vety.) (FV)/Dairy Farm Instructors (DF) [For Veterinary courses only]:** Candidates, who claim the seats reserved for Live Stock Inspectors/Farm Assistant (Vety)/Dairy Farm Instructors should submit their applications to the Commissioner for Entrance Examinations, through their Heads of Offices with recommendation. They have to send a photocopy of the application with attested copies of all certificates to the Registrar, Kerala Veterinary & Animal Sciences University, Pookot, Lakkidi P O, Wayanad-673 576 also. Such candidates shall produce their relieving certificate on the date of admission.

To claim (i) Seats for BVSc. & AH reserved for Live Stock Assistants, Farm Assistant (Vety.) and (ii) Seats reserved for Dairy Farm Instructors of Dairy Development Department for B.Tech. (Dairy Technology) and seat reserved for Live Stock Inspectors for B.Tech (Food Technology), **the candidates must take the concerned Entrance Examination.**

A selection committee constituted by the respective Universities will assign marks to the candidates referred under Clauses 5.2.15 (i) [except Diploma Holders in Agricultural Science] and 5.2.15 (ii) out of 500, considering the academic merit (Higher Secondary = 200) higher qualification (BSc. = 100, MSc. = 100) and length of service (100). The list of candidates under the respective categories along with the marks allotted to them as above will be prepared and sent to the Commissioner for Entrance Examinations to reach him on or before 30<sup>th</sup> April 2017.

The marks out of 500, awarded to the candidates for academic merit will be added to the marks obtained by the respective candidates in the respective Entrance Examinations (provided they are ranked in the concerned Entrance Examination), computed out of 500 so that the candidates would be eligible for a maximum of 1000 marks. The merit list for each category except Diploma holders in Agricultural Science would be prepared on the basis of inter-se merit of the candidate computed as above.

- Note :** (i) Two seats are reserved for Livestock Inspector and one seat is reserved for Farm Assistant (Vety.) for BVSc. & AH Course. If candidates are not available in any one of these categories during a year, the same will be allotted to the other category.
- (ii) A total number of 17 seats are reserved for BSc.(Hons.) Agri. course as follows. Agricultural Assistants (5 seats), VHSE (Agri.) Holders (6 seats) and Diploma Holders in Agricultural Science (6 seats). If candidates are not available in any one of these categories, the seats will be filled up from the General Quota.
- (iii) Two seats will be reserved for Dairy Farm Instructors of Dairy Development Department for B.Tech. (Dairy Technology).
- (iv) If candidates as per note (i), (ii) and (iii) are not available, the seats will be filled up from the General Quota.

- 5.2.16 **Sports Quota (SP):** Candidates who claim reservation under Sports Quota shall fulfil their eligibility based on the norms of Kerala State Sports Council appended in Annexure XVIII (ii) prior to submission of application, for the seats as prescribed in the Prospectus.

The candidate should forward the original application to the Commissioner for Entrance Examinations, and a photocopy of the application to the **Secretary, Kerala State Sports Council, Thiruvananthapuram-695001**. The Sports Council will allot marks to the candidates according to their proficiency in sports. The maximum marks for proficiency is 500. [Guidelines of the Sports Council for award of Marks for proficiency in Sports is given under **Annexure XVIII (ii)** of this Prospectus].

The Sports Council Authorities will collect the Roll Number from the candidates and furnish it in the proficiency mark list for sports. The mark list of candidates under 'Individual Events' and 'Team Events' should be prepared separately and forwarded to the Commissioner for Entrance Examinations so as to reach him on or before 30<sup>th</sup> April 2017. In the case of candidates seeking admission to Medical/Agriculture/Veterinary/Fisheries courses, the marks out of 500 awarded to the candidates for proficiency in sports will be added to the marks obtained by the respective candidates in the NEET-UG 2017 (provided they are ranked in the NEET-UG 2017), computed out of 500. In the case of candidates seeking admission to Engineering courses, the marks out of 500 awarded to the candidates for proficiency in sports will be added to the marks arrived at, for the preparation of Engineering rank list, computed out of 500. So, the candidates would be eligible for a maximum index mark of 1000. The merit list of individual and team events will be prepared on the basis of inter-se merit of the candidates computed as above and will be published separately.



At the time of preparation of the inter-se merit list under sports quota, if there is any tie in the total marks, it will be resolved in such a way that the candidate getting higher Engineering rank or NEET-UG rank, as the case may be, will be placed higher in the ranking. The seats under Sports quota will be filled up by giving equal representation to both individual and team events. The principle adopted will be 1:1 which will be implemented by allotting seats **alternatively** between individual event and team event. The allotment will start with the event, whether individual or team, to which a candidate secures the highest index mark from among the candidates considered exclusively for Sports Quota reservation seats. This principle will be followed for allotment of seats in Engineering, Medical/Agriculture/Veterinary/Fisheries courses. If there is any vacancy in the 50% seats reserved for individual events/team events, the seats shall be filled up by candidates from the other category.

- 5.2.17 **NCC Quota (CC):** The candidates seeking admission under the NCC quota should forward the original application to the Commissioner for Entrance Examinations, and a photocopy of the application to the Deputy Director General, NCC (Kerala), PB No.2212, Thiruvananthapuram-695010 through the respective NCC Unit Officers where the candidates have been enrolled as cadets, before the last date for submission of application. The seats under NCC Quota for admission to Professional Degree Courses are restricted only to the NCC Cadets who are studying within the State of Kerala.

The State level committee, on the basis of the norms approved by the Government, will award candidates, marks according to their proficiency in NCC. The maximum marks for proficiency will be 500. The NCC authorities will collect the Roll Number of the candidates in the Entrance Examinations from the respective candidates and furnish the Roll Numbers in the mark list. The Deputy Director General, NCC, will forward the list of candidates with their marks to the Commissioner for Entrance Examinations to reach him on or before **30<sup>th</sup> April 2017**.

In the case of candidates seeking admission to Medical/Agriculture/Veterinary/Fisheries courses, the marks out of 500 awarded to the candidates for proficiency in NCC will be added to the marks obtained by the respective candidates in the NEET-UG 2017 (provided they are ranked in the NEET-UG 2017), computed out of 500. In the case of candidates seeking admission to Engineering courses, the marks out of 500 awarded to the candidates for proficiency in NCC will be added to the marks arrived at, for the preparation of Engineering rank list, computed out of 500. In the case of Architecture course, the marks out of 500 awarded to the candidates for proficiency in NCC will be added to the marks considered for preparing the Architecture rank list computed out of 500. So the candidates would be eligible for a maximum of 1000 marks. The merit list would be prepared on the basis of inter-se merit of the candidate computed as above.

At the time of preparation of the inter-se merit list under NCC Quota, if there is any tie in the total marks, it will be resolved in such a way that the candidate getting higher Engineering rank or NEET-UG rank, as the case may be, will be placed higher in the ranking.

- 5.3 **Reservation for Persons with Disabilities (PD):**

Three percent of the seats available to the State for allotment from the State rank lists are reserved for candidates with disabilities for all courses in Govt./Aided Colleges as stipulated in Section 39, Chapter VI of the Persons with Disabilities Act 1995. As per Clause 2 (t), Chapter I of the Act, 'Person with disability' means a person suffering from not less than 40% of any disability as certified by a medical authority. Generally, candidates who have a minimum of 40% disability alone will be eligible to apply for this quota. Candidates seeking admission to Medical Courses (except BHMS), will have to satisfy the eligibility criteria prescribed by the Medical Council of India for 'Persons with Disabilities'. Accordingly, (i) the 'Visually handicapped', 'Hearing disabled' and 'Locomotory disabled' involving upper limb are not eligible for admission to the Medical courses. (ii) Candidates with 'Locomotory disability' of lower limb between 50% and 70% would be allowed the benefit of reservation under the Disability Act for admission to the Medical courses. Blind (including colour blind), deaf and/or dumb candidates shall not be eligible for admission to the BHMS course as per Central Council of Homoeopathy Guidelines.

As per the guidelines of Medical Council of India, for admission to MBBS course, candidates with 'Locomotory disability' of lower limbs between 50% and 70% would be allowed the benefit of reservation under the Disability Act. Unfilled seats in this quota for MBBS course will be filled up by persons with Locomotory disability of lower limbs between 40% and 50% before they are included in the annual sanctioned seats for General category candidates.

For claiming reservation under this category for MBBS/BDS/BAMS/BSMS/BHMS/BVSc. & AH courses, a self attested copy of the certificate of disability from the District Medical Board certifying the percentage of degree of disability issued not earlier than 3 months prior to the last date of submission of application has to be attached with the printout of the application. This certificate will be considered for granting this benefit for other Medical courses, Engineering and Architecture also.

However, candidates under this category, desirous of being considered for the courses BSc. (Hons.) Agri., BFSc. (Fisheries), Engineering and Architecture, need attach only an attested copy of the certificate of disability from the District Medical Board certifying the percentage of degree of disability issued not earlier than 12 months prior to the last date of submission of application, along with the printout of the application.

No document/certificate other than those mentioned above will be considered for determining disability. Based on the certificate produced along with the printout of the application, candidates will be provisionally included under the 'Persons with Disability' category.

The CEE will publish the merit list of such candidates, who have been included in the category. However, the inclusion in this rank list is strictly provisional.

A State Level Committee to be constituted by the Government under the Chairmanship of the Commissioner for Entrance Examinations consisting of medical experts in General Medicine, ENT, Neurology, Orthopaedic Surgery, Ophthalmology and Physical Medicine & Rehabilitation will examine and assess the disability of the candidates who are provisionally included under this category. Necessary orders constituting the Committee will be issued by the Government in due course and the same will be notified. The State Level Committee will have powers to review the certificates issued by the District Medical Boards.

There will be special invitees representing Medical/Agricultural/Veterinary/Fisheries/Engineering specialities to this Committee in addition to Medical Experts who will subsequently determine the suitability of a candidate, having minimum 40% of any disability, for a particular course.

Only those candidates who are having a minimum 40% of any disability and are found to be physically suitable by the Committee for the courses opted by the candidates will be chosen for a course as only the physically fit can undergo the rigors of a professional course. The recommendations of this State Level committee will be binding on the candidates. The selection of candidates under this category will be based on the merit in the Entrance Examination and physical suitability, and not on the basis of the degree of disability.

**Note :** However, candidates will have to qualify NEET-UG as per the qualifying criteria prescribed in the Information Bulletin of NEET-UG 2017 for admission to MBBS/BDS courses.

#### 5.4 Claims for Mandatory Reservation:

5.4.1 **State Merit:** The seats under the State Merit (SM) will be filled purely on merit (State-wide) basis irrespective of the category/community to which the candidates belong.

5.4.2 **Claim for communal reservation under the Socially and Educationally Backward Classes (SEBC) :**

Reservation to the Socially and Educationally Backward Classes will be in accordance with the provisions contained in G.O.(P)208/66/Edn. dated 02.05.1966, G.O.(Ms) No.95/08/SCSTDD dated 06.10.2008, GO(MS) No. 10/2014/BCDD dated: 23.05.2014, G.O.(P) No. 1/2015/BCDD dated: 01.01.2015, GO(MS) No. 4/2015/H.Edn. dated: 05.01.2015, GO(MS) No. 15/2015/H.Edn. dated: 19.01.2015 and as amended from time to time and will be in accordance with the Orders of the Hon'ble Supreme Court of India/ Hon'ble High Court of Kerala or Orders of the Government of Kerala/ Government of India.

(a) Candidates belonging to Socially and Educationally Backward Classes as per G.O.(P) 208/66/Edn. dated 02.05.1966, GO(MS) No. 10/2014/BCDD dated: 23.05.2014, G.O.(P) No. 1/2015/BCDD dated: 01.01.2015, GO(MS) No. 4/2015/H.Edn. dated: 05.01.2015 and GO(MS) No. 15/2015/H.Edn. dated: 19.01.2015 should produce a certificate to the extent that the candidate belongs to the community which is designated as a Socially and Educationally Backward Class and does not belong to the category of Creamy Layer, in the proforma given as Annexure V of the GO(P) No. 1/2015/BCDD dated: 01.01.2015. The names of castes and communities under SEBC are given in Annexure XI. Only the claims of the candidates of those communities that are included in the list as incorporated in the respective Annexure of the Prospectus 2017 will be considered. Claims by candidates belonging to other communities, which are not included in the Annexure, will be rejected even if certificates

from the concerned Revenue Officers have been obtained and furnished along with the printout of the application.

- (b) Candidates belonging to Ezhava, Muslim, Other Backward Hindus, Latin Catholic & Anglo Indians, Dheevera and related communities, Viswakarma and related communities, Kusavan and related communities, Other Backward Christian and Kudumbi communities, claiming reservation under SEBC Quota should invariably produce Non-Creamy Layer certificate obtained from the Village Officer concerned. The above certificate should be obtained in the prescribed format along with the printout of the application itself.
- (c) Reservation under SEBC for children of inter-caste married couples: Children of Inter-caste married couple with either the father or mother belonging to a community included in SEBC list, or with father and mother belonging to different communities, both of which are included in the SEBC list, are eligible for reservation under SEBC. Such candidates should furnish a Non-Creamy Layer certificate specifying the community of the candidate from the Village Officer in the proforma available along with the printout of the application.
- (d) Candidates who are children of Inter-Caste married couple of whom one is SC/ST, will be eligible for educational and monetary benefits admissible to SC/ST as per Para 2 (ii) of GO (MS) No.25/2005/SCSTDD dated 20.06.2005, if eligible for reservation under SEBC, will be granted the same, based on the Non-Creamy Layer Certificate obtained from the Village Officer and the inter-caste marriage certificate issued by the Tahsildar to be attached by them with the printout of the application.
- (e) The candidature/ allotment/ admission of the candidates who furnish fake Non-Creamy Layer certificates is liable to be cancelled. Such candidates are also liable to be debarred from appearing for the Entrance Examination for a period extending upto two years.

#### 5.4.3 Claim for reservation under Scheduled Castes/Scheduled Tribes Quota:

- (a) Candidates claiming reservation under Scheduled Castes/Scheduled Tribes quota should obtain the caste/community certificate from the Tahsildar concerned, in the proforma given in the application specifically meant for them. SC/ST caste status of children, whose parents contracted Inter-caste marriage, will be subject to the orders/clarification issued in GO(Ms) No. 25/2005/SCSTDD dated: 20.06.2005, judgement dated 10.08.2005 of the Full Bench of the Hon'ble High Court of Kerala in WP(C) 2483/2005 and connected cases and GO (Ms) No.109/2008/SCSTDD dated 20.11.2008.

As per G.O.(MS)No.109/2008/SCSTDD, dated 20.11.2008, the children born of inter-caste married couple of which one of the parents is SC/ST can claim the status of SC/ST on proof of the conditions of acceptance, customary traits and tenets under which such children are brought up.

The competent authority issuing SC/ST community certificate to children born of inter-caste married couple, of which one of the parents is SC/ST, should ensure that the claimant is subjected to same social disabilities and also following the same customs and traditions and the community has accepted that person to its fold as such. The authority to issue caste certificate should also ensure that:

- (i) Each case shall be examined individually in the light of the existing facts and circumstances.
- (ii) The claimant has suffered disabilities - socially, economically and educationally.
- (iii) The society has accepted the claimant to their original fold as one among them and is living in the same social tenet.

Christian converts who have subsequently embraced Hinduism should produce caste/ community certificate in the proforma given in the application. The following certificate should also be got recorded by the Revenue Official, below the certificate, "The certificate is issued after observing the guidelines issued in the Government Circular No. 18421/E2/ SCSTDD dated 15.12.1987".

The names of castes and communities are given in Annexures VIII & IX. Community Certificate from Tahsildar is to be obtained in the prescribed format along with the printout of the application itself.

- (b) The applications for the reserved seats of Scheduled Castes/Scheduled Tribes candidates which do not contain SC/ST certificate (community certificate) from the Tahsildar in the prescribed format provided along with the printout of the application will not be considered on any account for claiming community reservation against the seat reserved for SC/ST candidates [vide G.O. (Ms) 31/90/SCSTDD dated 25.05.1990]. The community certificate should clearly specify that the candidate himself/herself (not the father or mother) belongs

to the Scheduled Castes/Scheduled Tribes. The Community Certificates obtained as per G.O. (Ms) No.136/07/RD, dated 27.04.2007 will be accepted. The candidates who are reconverted to Hinduism from Christianity of Scheduled caste origin should produce community certificate from the Tahsildar concerned along with a copy of Gazette Notification regarding re-conversion.

- (c) The claims for reservation under Scheduled Castes/Scheduled Tribes quota will also be subject to verification and clearance by the Screening Committee constituted for the purpose by the Government vide G.O. (P) No.19/2002/SCSTDD dated 20.04.2002 and as authorised by Section 6 of the Kerala (Scheduled Castes and Scheduled Tribes) Regulation of Issue of Community Certificates Act, 1996 (Act 11 of 1996) and G.O(P)No.15/2011/SCSTDD dated 01.02.2011.
- (d) The SC/ST claims in respect of those who have migrated from one State to another will be subject to the provisions of G.O. (MS) No.10/86/SCSTDD dated 12.02.1986. Only the children of those who had migrated to this State before the promulgation of the Constitution (Scheduled Castes) Order 1950 and the Constitution (Scheduled Tribes) Order 1950, and who ordinarily reside in this State can claim SC/ST benefits from the State of Kerala. They must be able to prove this, if required.
- (e) **WARNING** : Those who produce false SC/ST Certificate for claiming reservation under SC/ST quota shall be liable for the penalties stipulated in section 15 of the Act referred to in Clause (c) above. Candidates and their parents who make such applications are warned that in addition to prosecution they will have to suffer the following consequences, in case the SC/ST certificate produced is found to be false and the candidate does not belong to any SC/ST communities, under section 16 of the Act "Benefits secured on the basis of false community certificates will be withdrawn.
  - (i) Whoever not being a person belonging to any of the Scheduled Castes or Scheduled Tribes secures admission in any educational institution against a seat reserved for such castes or tribes or secures any appointment in the Government, Government Undertakings, Local Authority or in any other Company or Corporation owned or controlled by the Government or in any aided institution against a post reserved for such castes or tribes or enjoys any other benefits intended exclusively for such castes or tribes by producing a false community certificate shall, on cancellation of the false community certificate, be removed by cancelling the irregular admission in the concerned educational institution, or as the case may be, removed from the said service forthwith and any benefit enjoyed by him as aforesaid shall be withdrawn forthwith.
  - (ii) Any amount paid to such person by the Government or any other agency by way of scholarship, grant, allowance, stipend or any other financial benefit shall be recovered as if it is arrears of public revenue due on land.
  - (iii) Any degree, diploma or any other educational qualifications acquired by such person after securing admission in any educational institution on the basis of a false community certificate shall also stand cancelled on cancellation of the community certificate obtained by him."
- (f) Claim of OEC candidates against the un-availed seats of SC/ST candidates: Other Eligible Community (OEC) candidates are eligible for the un-availed seats, if any, under SC/ST quota, as per GO(P) No. 135/87/H.Edn dated 06.05.1987. They should specify their community status in the application. Such candidates should furnish "Non-Creamy Layer" Certificate obtained from the Village Officer concerned in the proforma available along with the printout of the application itself as per GO(P) 1/2015/BCDD dated: 01.01.2015 and GO(MS) No.4/2015/H.Edn. dated: 05.01.2015. Relaxation in marks in the qualifying examination as in the case of SEBC candidates will be applicable to OEC candidates [As per GO(P) No.53/2000/SCSTDD dated 03.07.2000]. The list of Other Eligible Communities is given in Annexure X of the Prospectus.
- (g) Claim for fee concession to OEC candidates: Candidates belonging to Other Eligible Communities are exempted from payment of fee at the time of allotment to professional Degree Courses under Government/Community quota as per G.O. (MS) No. 36/07/SCSTDD dated 03.07.2007. Those OEC candidates who have submitted the Non-Creamy Layer Certificate for availing the applicable reservation will be granted the fee concession based on the Non-Creamy Layer Certificate. But those OEC candidates who do not come under Non-Creamy Layer Category should submit the Community Certificate obtained from the village officer along with the printout of the application for availing the fee concession.

- (h) **Claim for fee concession to the candidates belonging to communities listed in Annexure X (a):** Candidates belonging to the communities listed in Annexure X (a) whose annual family income is up to Rs.6 lakhs are exempted from payment of fee at the time of allotment to Professional Degree Courses under Government/Community Quota as per GO (MS) No. 10/2014/BCDD dated: 23.05.2014. They should provide Community and Income Certificates from the Village Officer in the prescribed format along with the printout of the application. (See Annexure XVIII(i) for details).

5.4.4 **Fee Concession and other Scholarships:** Candidates desirous of being considered for any fee concession/ scholarship/ any other benefits, based on annual family income should produce Income Certificate from concerned Village Officer, along with the Printout of the application itself.

**Note: Income from salary:** In the case of candidates whose parents are employed, the Basic Pay and Dearness Allowance of the employee(s) are to be taken into account for the purpose of calculating total annual family income. Inclusion of Interim relief in the annual income will be as per the orders of Revenue Department. HRA, Special pay, Deputation pay, TA, PTA, honorarium etc. need not be counted for calculating the annual family income. (See Annexure XVIII(i) for details).

- (a) The annual family income furnished by candidates will be published in the website "www.cee-kerala.org" facilitating the public to raise complaints/ objections against false claims. The District Level Committee and the State Level Committee constituted with the provisions of G.O.(Rt) 1227/08/RD dated 01.04.2008 will conduct detailed enquiry on the complaints and recommend to the CEE for appropriate action, respectively. The CEE, the Chairman and Convenor of the State Level Committee, shall implement the recommendations as per clause 5.4.4.(b) of the Prospectus.

- (b) The candidature/ allotment/ admission of the candidates who furnish false Income certificate is liable to be cancelled. Such candidates are also liable to be debarred from appearing for the Entrance Examination for a period extending upto two years.

5.5 **Other General Rules for Special/Mandatory Reservation:**

5.5.1 The seats unavailed by the Scheduled Castes candidates will go to the Scheduled Tribes candidates and vice versa.

5.5.2 The seats unavailed by the SC/ST candidates will go to "Other Eligible Community" (OEC) candidates. The seats that still remain unavailed of will go to the State Merit Quota (State wide basis).

5.5.3 The seats unavailed by the SEBC category candidates will be allotted under State Merit.

5.5.4 If any seat, in any special reservation quota, is left unavailed by the candidates belonging to that particular category, it will go to the Mandatory reservation quota, unless otherwise stated.

5.5.5 The seats falling vacant under the All India/Nominees Quota for MBBS/BDS, if released to the State Government for allotment as per State Government Norms will be added to the Mandatory reservation quota and the total seats revised under mandatory reservation quota will be re-distributed and allotted as per the mandatory reservation principles. **The Director of Medical Education will inform the CEE of such seats through Government of Kerala on or before 27.08.2017.**

5.5.6 The seats unfilled under the Govt. of India/Reciprocal Quota after 31.07.2017 for Engineering/Architecture Courses will be added to the Mandatory reservation quota and the total seats revised under mandatory reservation quota will be re-distributed and allotted as per the mandatory reservation principles. **The Director of Technical Education will inform the CEE of such seats on 01.08.2017.**

5.5.7 The seats unfilled under the VCI/ICAR for BVSc. & AH/B.Sc (Hons) Agriculture after 18.10.2017 will be added to the Mandatory reservation quota and the total seats revised under mandatory reservation quota will be re-distributed and allotted as per the mandatory reservation principles. **The Registrar, Kerala Veterinary and Animal Sciences University/ The Registrar, Kerala Agricultural University will inform the CEE of such seats on 19.10.2017.**

6. **CRITERIA OF ELIGIBILITY FOR ADMISSION**

6.1 **Nativity:** Only Indian citizens are eligible for admission to Professional courses unless otherwise notified. Persons of Indian Origin (PIO)/ Overseas Citizen of India (OCI) will also be treated at par with Indian citizens for the limited purpose of admission. However PIO/OCI candidates will not be eligible for any kind of reservation.

Candidates seeking admission to Professional courses will be categorised as Keralite, Non-Keralite Category I (NK I) and Non-Keralite Category II (NK II).

- (i) **Keralite:** A candidate of Kerala origin will be categorised as a 'Keralite'. Children of All India Service (AIS) officers (Non-Keralites) allotted to Kerala cadre are deemed to be 'Keralites' as per G.O. (Rt) No. 822/08/H. Edn. dated 29/05/2008. But they will not be eligible for Communal/Special/Persons with Disabilities reservation or any fee concession.
- (ii) **Non-Keralite Category I (NK I):** A candidate who is not of Kerala origin but fulfils anyone of the following conditions will be categorised as 'Non-Keralite Category I'(NK I).
- (a) A candidate who has undergone qualifying course in Kerala and who is son/daughter of Non-Keralite parents belong to Government of India/Defence Service, posted to Kerala.
  - (b) A candidate who has undergone qualifying course in Kerala and who is son/daughter of Non-Keralite parents who are serving/served Government of Kerala for a minimum period of two years.
  - (c) A candidate who is not of Kerala Origin but has been a resident of Kerala State for a period of 5(five) years within the period of 12(twelve) years of his/her study.
  - (d) A candidate who is not of Kerala Origin but who has undergone his/her school studies in Kerala from standard VIII to XII.

Non-Keralite Category I candidates will be considered against 'State Merit' seats for Engineering/Architecture/Medical & Allied courses. But they will not be eligible for Communal/ Special/Persons with Disabilities reservation or any fee concession.

- (iii) **Non-Keralite Category II [NK II]:** Candidates who do not come under 'Keralite' or 'Non-Keralite Category I' will be categorised as 'Non-Keralite Category II'. Such candidates are eligible for admission to Government seats and Management quota seats in Engineering courses in Government Controlled Self financing Colleges. However, the 'Non-Keralite Category II' (NK II) candidates will be considered for admission to the Government seats in Government Controlled Self Financing Engineering Colleges only when the Keralite and Non-Keralite I (NK I) candidates are not available for admission. 'Non-Keralite Category II' (NK II) candidates are also eligible for admission to Government Seats and Management Quota seats in Private Self Financing Engineering/Architecture Colleges, which will be notified separately. But they will not be eligible for Communal/ Special/ Persons with Disabilities reservation or any fee concession. 'Non-Keralite Category II' (NK II) candidates are not eligible for admission to Medical and Allied Courses including MBBS/BDS and for admission to Government Engineering Colleges.

Note : The following category of candidates will not be governed by clauses (i), (ii) and (iii) above: Candidates to be admitted in respect of seats reserved for the nominees of Government of India, Administration of Union Territory of Andaman & Nicobar Islands, Lakshadweep Administration, Jammu & Kashmir, candidates selected through the All India quota seats for MBBS/BDS courses and candidates sponsored under reciprocal quota by Govt. of Karnataka/ Tamil Nadu.

#### 6. 1.1 Certificates to prove Nativity

- (a) **Keralites:** In order to prove that a candidate is an Indian Citizen of Kerala origin for the limited purpose of eligibility for admission, he/she has to produce one of the following certificates along with the printout of the application itself.
- (i) The true copy of the relevant page of Secondary School Leaving Certificate of the candidate showing the place of birth in Kerala. **OR**
  - (ii) The true copy of the relevant page of the Secondary School Leaving Certificate of either of the parents of the candidate showing Place of Birth in Kerala with corroborative certificate to establish the relationship between the parent and the candidate. **OR**
  - (iii) The true copy of the relevant page of the Passport of the candidate, issued by Government of India, showing Place of Birth in Kerala or of either of the parents of the candidate showing Place of Birth in Kerala with corroborative certificate to establish the relationship between the parent and the candidate. **OR**
  - (iv) A certificate of birth from the authority competent to register birth (Panchayat/Municipality /Corporation) showing the candidate's or either of the parents' (in which case corroborative certificate to establish the relationship between the parent and the candidate is necessary) place of birth in Kerala, to be issued by a competent registering authority. **OR**

- (v) A certificate from the Village Officer/ Tahsildar to show that the candidate or his/her father/mother was born in Kerala (This is to be obtained in the prescribed format along with the printout of the application). OR
- (vi) A certificate from the competent authority showing that the parent of the candidate is an All India Service officer allotted to Kerala cadre.
- (b) **Non-Keralites Category I [NK I]:** In order to prove that the candidate is a Non-Keralite Category I (NK I) for the limited purpose of eligibility for admission, he/she has to produce one of the following certificates along with the printout of the application itself.
- (i) A Certificate to be issued by the Employer is to be obtained in the prescribed format in the application from the Head of the organisation, where the candidate's parent (employee) is serving/served, and the 'Certificate showing School studies in Kerala for Standards XI & XII' is to be obtained from the Head of institution where the candidate underwent his/her qualifying course in Kerala to satisfy the nativity condition under the sub-clause 6.1(ii).
- (ii) A certificate of residence from the Village Officer/ Tahsildar to the effect that the candidate has been a resident of Kerala State for a period of five years within a period of twelve years of his/her study (to be obtained in the prescribed format along with the printout of the application).
- (iii) A Certificate showing School Studies in Kerala from Std. VIII to XII obtained from the Head(s) of the educational institution(s) in Kerala in the case of candidates who have undergone school studies in Kerala to prove that the candidate has undergone his/her studies in the schools in Kerala from Std. VIII to XII. This certificate is to be obtained in the prescribed format in the application itself (For details regarding the Certificate showing School Studies in Kerala from Std. VIII to XII, see Annexure XII).
- (c) **Non-Keralites Category II [NK II]:** They should furnish the 'Certificate of Completion of Qualifying Examination' in the prescribed format in the application itself to prove their nativity or copy of Passport issued by Government of India to prove Indian citizenship.

## 6.2 Academic Eligibility:

### 6.2.1 Medical & Allied Courses:

- (a) Medical courses consist of MBBS, BDS, BAMS, BHMS, BSMS and BUMS courses and Allied courses consist of B.Sc.(Hons)Agriculture, B.Sc.(Hons) Forestry, BVSc. & AH and BFSc. courses.
- (i) **For MBBS, BDS, BSMS:** Candidates who have passed Higher Secondary examination of the Board of Higher Secondary Education, Kerala, or examinations recognised equivalent thereto, **with 50% marks in Biology/Biotechnology separately, and 50% marks in Physics, Chemistry and Biology/Biotechnology put together, are eligible.** In the absence of Biology, Biotechnology will be considered as a subject for academic eligibility.

Only those candidates who qualify in NEET-UG as per the Qualifying criteria described in the Information Bulletin of NEET-UG 2017 and satisfying the nativity conditions mentioned in clause 6.1 of the prospectus shall be considered for admission to MBBS/BDS courses.

- (ii) **For admission to BAMS/ BHMS courses:** Candidates who have passed Higher Secondary examination of the Board of Higher Secondary Education, Kerala, or examinations recognised equivalent thereto, **with 50% marks in Biology separately, and 50% marks in Physics, Chemistry and Biology put together, are eligible.** Biotechnology will not be considered as a subject for academic eligibility.
- (iii) **For admission to BUMS course:** Candidates seeking admission to main Kamil-E-Tib-Wa-Jarahat (Bachelor of Unani Medicine and Surgery-BUMS) course must have passed Intermediate (10+2) or its equivalent examination with **50% aggregate marks in the subjects of Physics, Chemistry and Biology and 50% marks in Biology separately** and the candidate should have passed (a) 10<sup>th</sup> standard with Urdu or Arabic or Persian language as a subject or clear the test of Urdu in the Entrance Examination conducted by the University or Board or Registered Society authorized by the Government to conduct such examination; or  
(b) pre-Tib examination of one year duration.
- (iv) **For admission to B.Sc.(Hons.)Agri., B.Sc.(Hons) Forestry, BFSc courses:** Candidates who have passed Higher Secondary examination of the Board of Higher Secondary Education, Kerala, or examinations recognised equivalent thereto, **with 50% marks in Biology**

separately, and 50% marks in Physics, Chemistry and Biology put together, are eligible. Biotechnology will not be considered as a subject for academic eligibility.

- (b) **For admission to BVSc. & AH Course:** Candidates should have secured not less than 50% aggregate marks in English, Physics, Chemistry and Biology for the qualifying examination, in addition to the condition as stipulated in clause 6.2.1(a)(iv) as per regulation 5 of Minimum standards of Veterinary Education Degree Course (BVSc & AH) Regulation, 1993. Relaxation in marks is permissible as stipulated in clause 6.2.4.
- (c) Candidates who have passed the BSc Degree (Three year course) examination with Physics, Chemistry, Zoology, Botany or Biotechnology as Main, and any one or two of the above subjects as Subsidiaries, with 50% marks for Main & Subsidiaries taken together, subject to the condition that they have passed Higher Secondary Examination, Kerala or examinations recognised as equivalent thereto with Physics, Chemistry and Biology as optional subjects are eligible for admission to MBBS, BDS, BAMS, BHMS and BSMS courses.

#### 6.2.2 Engineering courses:

[Including B.Tech (Agri. Engg.) and B.Tech (Food Engg. & Tech) courses under the Kerala Agricultural University, B.Tech (Dairy Technology) and B.Tech (Food Technology) courses under Kerala Veterinary & Animal Sciences University and B.Tech (Food Science & Technology) course under Kerala University of Fisheries and Ocean Studies].

- (a) Candidates who have passed Higher Secondary Examination, Kerala, or Examinations recognized as equivalent thereto, with 50% marks in Mathematics separately, and 50 % marks in Mathematics, Physics and Chemistry put together are eligible for admission. However candidates who have passed Higher Secondary Examination, Kerala, or Examinations recognized as equivalent thereto, with 45% marks in Mathematics, Physics and Chemistry put together are eligible for admission under Management Quota in Private Self Financing Engineering Colleges/Government Controlled Self Financing Engineering Colleges. In case, the candidate has not studied Chemistry, the marks obtained in Computer Science shall be considered. In case, the candidate has not studied Chemistry and Computer Science, the marks obtained in Biotechnology shall be considered. In case, the candidate has not studied Chemistry, Computer Science and Biotechnology, the marks obtained in Biology shall be considered. The marks as shown in the mark list of the Board of Examination obtained from the respective Higher Secondary Board shall be considered for academic eligibility.

**Note:-** (i) In two year Kerala Higher Secondary courses or examinations recognised equivalent thereto with two year course where the Board Examinations are conducted in both years, the total marks of two years in the respective subjects as shown in the mark lists of the respective Higher Secondary Boards will be considered for academic eligibility.

(ii) In Higher Secondary courses or examinations recognised equivalent thereto where Board Examinations are conducted only at the end of 12<sup>th</sup> class (final year), the marks in the respective subjects as shown in the mark lists of the respective Higher Secondary Boards will be considered for academic eligibility.

(iii) For all other type of Higher Secondary courses or examinations recognised equivalent thereto, the marks of the respective subjects as shown in the mark list of the respective Board of Examinations will be considered for academic eligibility.

- (b) Candidates who have passed Higher Secondary Examination, Kerala, or examinations recognised as equivalent thereto, with 50 % marks in Mathematics/Biology separately, and 50 % marks in Physics, Chemistry and Mathematics/Biology put together are eligible for admission to the seats reserved for Dairy Farm Instructors of Dairy Development Department for B.Tech. (Dairy Technology). However, the candidates admitted to the course have to take a make-up course in Basic Mathematics (2+0) credits or Applied Biology (1+1) credit as the case may be.

**Note:**(i) The Vocational Higher Secondary Examination, Kerala, has been recognised as equivalent to the Higher Secondary Examination, Kerala.

- (ii) In the case of nominees of Government of India and nominees of reciprocal quota seats who are selected on the basis of the marks in the qualifying examination, the academic eligibility as specified in clause 6.2.2 (a) is applicable.

#### 6.2.3 Architecture course:

- (a) Minimum academic eligibility for admission to B. Arch. :  
10+2 or equivalent examination from a recognised Board with Mathematics as a subject of study by securing 50% marks in aggregate. OR  
10+3 Diploma (any stream) recognised by Central/State Governments with 50% aggregate marks with Mathematics as one of the subject of examination. OR



International Baccalaureate Diploma, after 10 years of schooling, with not less than 50% marks in aggregate and with Mathematics as compulsory subject of examination.

(b) In addition to the academic eligibility prescribed under clause 6.2.3 (a), only those candidates who score the minimum eligibility marks as per the Information Brochure of National Aptitude Test in Architecture (NATA) 2017 will be considered for admission to B. Arch. course. There is no relaxation in the minimum passing score of NATA to any category of candidate as per letter No. CA/5/Academic-NATA dated 11.03.2008. The candidates are advised to qualify in NATA on or before 10.06.2017.

(c) There is no provision for lateral admission to the second year or at any stage during the 5 year course in Architecture.

#### 6.2.4 Relaxation in marks:

For all the courses, candidates belonging to Socially and Educationally Backward Classes (as per G.O. (P) No. 208/66/Edn dated 02.05.1966, GO(MS) No. 10/2014/BCDD dated: 23.05.2014, GO (P) No. 1/2015/BCDD dated: 01.01.2015 and amendments thereof), will have a relaxation of 5% marks in the qualifying examination. They need only 45% marks in the case of Mathematics/Biology and 45% marks in the case of Mathematics/Biology, Physics and Chemistry put together. The Scheduled Castes and Scheduled Tribes candidates need only a pass in the qualifying examination. However, for admission to MBBS/BDS courses, candidates belonging to SC/ST categories need 40% marks in Physics, Chemistry and Biology/Biotechnology put together in the qualifying examination. Candidates with Locomotory disability of lower limbs between 40% to 70% need only 45% marks in case of Biology/Biotechnology and 45% marks in case of optional subjects put together for admission to MBBS/BDS courses (as per the Guidelines of Medical Council of India/Dental Council of India). The candidates belonging to PD category will have a relaxation of 5 % marks in the qualifying examination for Engineering and Medical Allied Courses. They need only 45 % marks in the case of Mathematics/Biology and 45 % marks in the case of Mathematics/Biology, Physics and Chemistry put together. Provided that in cases where only grades are given for qualifying examination and marks are not mentioned, the grade covering 45% marks will be considered as criterion for eligibility. The relaxation in marks in the Qualifying Examinations available to SEBC and PD Candidates will not be applicable to the admissions under Management Quota in Private Self Financing Engineering Colleges/Government Controlled Self Financing Engineering Colleges. Biotechnology will not be considered for the courses for academic eligibility as specified in clauses 6.2.1 (a) (ii), 6.2.1 (a) (iv) & 6.2.1 (b). Optional subjects are the subjects specified in Clauses 6.2.1, 6.2.2 & 6.2.3 for the respective courses.

The relaxation of marks in the qualifying examination extended to SEBC candidates only will be applicable to OEC candidates even if they are allotted against the unavailed seats of SC/ST quota. *Also refer clause 5.4.3 (f).*

6.2.5 (i) Candidates who have appeared for the Higher Secondary or equivalent examination will be permitted to take the Entrance Examinations provisionally. The candidates should have appeared for the qualifying examination before taking the Entrance Examination. **Such candidates should prove their academic eligibility on the date of admission.**

(ii) Candidates who have qualified in the Engineering Entrance Examination should submit their marks online through the Official website of the CEE ([www.cee.kerala.gov.in](http://www.cee.kerala.gov.in)) and forward the true copy of the mark list of final year of the qualifying examination, duly attested by a gazetted officer so as to reach the Office of the CEE on or before 05.06.2017.

6.2.6 Candidates referred to in Clause 6.2.1(c) who have only appeared or are appearing for the BSc. Degree Examination, are not eligible to apply as per Clause 6.2.5.

6.2.7 No rounding off of the percentage of marks to the nearest whole number is permitted. For example, a score of 50 marks out of 100 or 150 marks out of 300 alone will be considered as 50% marks and scores of 45 out of 100 or 135 out of 300 alone will be considered as 45% marks for determining eligibility.

- 6.3 **AGE:**  
6.3.1 Applicants should have completed 17 years of age as on the 31<sup>st</sup> December 2017. No relaxation in the minimum age will be allowed. There is no upper age limit for KEAM-2017.

7. **HOW TO APPLY FOR THE ENTRANCE EXAMINATION / ADMISSION**

- 7.1 **Online Submission of Application:** Online submission of application through the website [www.cee.kerala.gov.in](http://www.cee.kerala.gov.in) is required to apply for admission to all the courses (MBBS, BDS, Other Medical & Allied courses, Engineering and Architecture).

7.2 **Application Fee:**

- 7.2.1 A candidate who does not belong to SC/ST communities will be treated as 'General' candidate for the collection of application fee. The application fee for all candidates will be as follows:

General	:	Rs.800/-
SC	:	Rs.400/-

- (a) ST candidates are exempted from payment of application fee.

Candidates referred to in Clause 5.4.2 (d), who are children of Inter-Caste married couple of which one is SC/ST who will be eligible for educational and monetary benefits admissible to SC/ST as per Clause 2 (ii) of GO (MS) No.25/2005/SCSTDD dated 20.06.2005, should mention the same in the form meant for it. They should attach an inter-caste marriage certificate from the Tahsildar along with the printout of the application form.

- 7.2.2 Candidates choosing 'Dubai' as Examination Centre will have to remit an additional fee of Rs.12,000/- by way of online payment. The additional fee can also be remitted by way of e-chalan, if payment is made inside India. (See clause 7.3.1 for more details) Such candidates should give a local contact number, if available, in their application in the appropriate place. If the additional fee of Rs. 12,000/- is not paid by the candidates, they will be allotted a centre within the country.

- 7.2.3 Candidates desirous of getting admission to Architecture Course and possessing the required minimum qualification mentioned under Clause 6.2.3 will have to appear for the "National Aptitude Test in Architecture" (NATA), conducted by the Council of Architecture. They should appear for NATA in such a manner that they can submit their NATA score to the CEE as stipulated in clause 9.7.9. The details will be notified separately. Candidates applying for the Engineering and/or Medical streams and opting for Architecture also will have to appear for the 'National Aptitude Test in Architecture', as mentioned above. The candidates are advised to qualify in NATA on or before 10.06.2017.

7.3 **Mode of Payment of Application Fee:**

- 7.3.1 Candidate can pay application fee in either of the two following methods:

- (a) **Online Payment:** The fee may be paid by credit card/debit card/Internet Banking. On successful payment of fee, a Payment Confirmation Page will appear displaying the message 'Transaction Successful'. If the payment is unsuccessful, the message 'Transaction Unsuccessful' will be displayed. Due to communication failure, if the outcome of the payment attempt is not displayed, the 'Payment' tab in the candidate's home page should be checked to see if it has turned green. If not, the transaction was unsuccessful and the payment needs to be made again and ensure that it's successful. If the amount was debited from the account of the candidate for an unsuccessful transaction, the debited amount will be reverted to that account within 5-7 working days.

- (b) **E-chalan:** In case of payment through e-chalan, the payment should be made in the selected branches of State Bank of Travancore (SBT) in India or all Head /Sub Post Offices in Kerala, in cash. The e-chalan generated from the website after online submission of the application should be handed over to the bank/post office, as the case may be, and after depositing the fee plus processing charge, as applicable, the counterfoil(Candidate's copy) of the e-chalan must be collected back from the bank/post office official. It must be ensured that the bank/post office official has recorded the Payment ID pertaining to the payment on the counterfoil and put the office stamp and his/her initials at the designated places on the counterfoil. If the payment was successful, the 'Payment' tab in the candidate's home page turns green. Candidates are advised to login to the website and examine the 'Payment' tab to make sure that the fee status has been updated by the bank/post office official. If the payment tab has not turned green, the candidate should immediately contact the concerned bank/post office and get the payment status updated. On successful Payment, the required entries in the application will be made automatically.

**Note:** The Application fee/additional fee once remitted will not be refunded under any circumstances.

#### 7.4 Online submission of Application:

- (a) The detailed instructions for filling each item in the application are given in the link, "How to Apply" to be provided on the websites [www.cee-kerala.org](http://www.cee-kerala.org) and [www.cee.kerala.gov.in](http://www.cee.kerala.gov.in).
- (b) There are 6 steps for the online submission of application and all the steps are mandatory. Candidates should complete all steps including sending the signed printout of the online submitted application along with the necessary certificates and documents so as to reach the office of the Commissioner for Entrance Examinations on or before the last date notified for the same.

Candidate has to visit the website [www.cee.kerala.gov.in](http://www.cee.kerala.gov.in) where he/she can find the link "KEAM-2017 Online Application".

##### Step 1: Candidate Registration

This is a one-time procedure. During the process, candidates will get a system generated Application Number. Candidates are requested to enter their own password when demanded. Preferably a strong password is recommended. It ensures the candidates' safe online activities. The requirements of a strong password are:

- a minimum length of 8 characters
- a minimum of one alphabet character [a-z or A-Z]
- a minimum of one number (0-9)
- a minimum of one symbol [! @ # \$ % ^ & \* ]

The candidate has to re-enter the password for confirmation.

Don't disclose password to others. Remember the password till the end of allotment process of KEAM-2017 for further login including mark submission and CAP.

For further login, candidates have to note down all the information provided during this stage.

##### Step 2: Upload Images

A recent passport size photograph of the candidate, Signature of the candidate and the left hand thumb impression of the candidate, all in jpeg format of given specifications are to be uploaded before proceeding to Step 3.

##### Step 3: Filling up of Application

All the basic information, required at the Office of the Commissioner for Entrance Examinations are to be filled in at this step. Before filling the details, read the Prospectus carefully.

The data provided here will be used for processing the application. Any mistake in filling this sheet or providing false/incomplete/wrong information will affect the candidate's eligibility for admission or claim for reservation under any category. It is obligatory that the candidate should fill all the items in the application.

If the application is filled completely, candidate can preview the details of the application before going to the Final Submission, by clicking the 'Save & Preview' button. After making it sure that all the information given are correct and true, click the 'Final Submission' button to submit the online application ultimately.

**Note:- No modification of the application will be possible after Final Submission of application in step 3.**

##### Step 4: Payment of Application Fee

At this step, the candidate has to make the payment of application fee by way of Online Payment or by way of e-chalan. (Refer clause 7.3.1)

##### Step 5: Print Application

After payment of the Application Fee, Candidate should take a printout of the online submitted application. Candidates should get the Course Certificate and Nativity Certificate provided in the application.

##### Step 6: Send the Printout of application and supporting documents to the Commissioner for Entrance Examinations

Affix a photograph of the applicant with 3.5 x 4.5 cm size same as the photograph uploaded on the online application duly attested by the Head of the Institution which he/she studied last or by a Gazetted Officer. The printout of the application and supporting documents/certificates (see clauses 7.5 & 7.6 of the prospectus) are to be sent to the Office

of the Commissioner for Entrance Examinations, 5<sup>th</sup> Floor, Housing Board Buildings, Santhi Nagar, Thiruvananthapuram - 695 001 so as to reach the addressee on or before the last date specified for submission of application.

- (c) Applications should be complete in all respects. A candidate will be considered for the Entrance Examination or for admission, only if he/she has furnished the relevant certificates prescribed in the Prospectus, in proof of eligibility, or in support of any claim for reservation, under any category.

The procedure of online submission of application will be completed only after the printout of Application and supporting documents / certificates are received in the office of the Commissioner for Entrance Examinations. Candidates are directed to keep a copy of the printout of completed application form for further reference.

7.5 **Reservation Claims:**

7.5.1 **To claim Communal Reservation:** Only 'Keralites' as specified in Clause 6.1(i) are eligible for Communal Reservations.

- (a) **Non-Creamy Layer Certificate** to be obtained in the prescribed format along with the printout of the application for claiming reservation under SEBC quota, and OEC claim for Government Seats.
- (b) **Community certificate** for claiming reservation under SC/ST, for Govt. seats to be obtained in the prescribed format along with the printout of the application.
- (c) **Inter-Caste marriage certificate** in the prescribed format to be obtained from the Tahsildar concerned for candidates who are children of Inter-Caste married couple of whom one is SC/ST, and who are eligible for educational and monetary benefits admissible to SC/ST as per Para 2 (ii) of GO (MS) No.25/2005/SCSTDD dated 20.06.2005. Proforma of the certificate is given in **Annexure XV**.

7.5.2 **To claim Special Reservation:** Candidates should produce Original certificates from the authority concerned in support of any special reservation claimed by them (See clause 5.2).

7.5.3 **To claim reservation under 'Persons with Disabilities':** Self attested copy of the Medical Certificate from the District Medical Board as stipulated in Clause 5.3.

7.5.4 **To claim any fee concession/scholarship:** Candidates belonging to 'Keralite' category as defined in Clause 6.1(i), except those who are eligible for educational and monetary benefits admissible to SC/ST/OEC categories who wish to be considered for any fee concession/scholarship/any other benefit based on the annual family income, that may be announced by the Government/College/Admitting authority at any time after the submission of the application, should submit the income certificate from the concerned authorities in the prescribed format, at the time of submission of the application itself, to avail of such concessions. **Income certificates attached separately or produced after submission of the application will not be considered for granting any such concession.**

**Note:** Certificates which are defective and incomplete will not be considered for granting any claim. Memo will not be sent to applicants by post who submit certificates which are defective/incomplete to any claim. [See Clause 9.6.2 (c)]

7.6 **Enclosures to be submitted with the filled-in Application:**

- (a) Proof for Nativity as specified in Clause 6.1.1.
- (b) Self Attested copy of the relevant page of the SSLC or equivalent certificate to prove date of birth, in case Date of Birth is not certified in the Course Certificate issued by the Head of the Institution, in the Application.
- (c) Course Certificate in original duly filled in with signature and seal of the Head of the Institution in which the candidate is studying OR Self Attested copy of the final year mark list of the qualifying examination.
- (d) Non-Creamy Layer Certificate in the prescribed format in original from the concerned Village Officer for community reservation claims in the case of SEBC/OEC candidates.
- (e) Community Certificate in original from the concerned Tahsildar in the case of SC/ST candidates.
- (f) Original certificates as proof in support of any claim for special reservation.
- (g) Inter-Caste marriage certificate in original from the Tahsildar concerned, if applicable. [See Clause 7.5.1 (c)]
- (h) Self-attested copy of Medical certificate from the District Medical Board in the case of 'Persons with disabilities' [PD].

- (i) Self-attested copies of mark lists of ALL PARTS of the BSc. Degree Examination and Higher Secondary or equivalent Examination with Physics, Chemistry and Biology as optional subjects, in case of those seeking admission to Medical courses as per Clause 6.2.1 (c).
- 7.7 (i) Those seeking admission to Medical courses as per Clause 6.2.1(c) should satisfy the academic eligibility conditions at the time of submission of application.
- (ii) All Candidates who have passed/are appearing for the Higher Secondary or equivalent examination will be provisionally permitted to apply for admission under Medical & Allied courses including MBBS/BDS, if they otherwise satisfy the eligibility conditions. They should produce the original mark list of the qualifying examination passed, at the time of admission.
- (iii) All Candidates who have passed/are appearing for the Higher Secondary or equivalent examination will be provisionally admitted to the Engineering Entrance Examination under KEAM-2017, if they otherwise satisfy the eligibility conditions. All candidates should submit marks online through Official website of CEE for Engineering Courses and forward the printout along with the self attested copy of the mark list of the qualifying examination, on or before 05-06-2017. All candidates should produce the original mark list of the qualifying examination passed, at the time of admission.
- (iv) Those candidates appearing for Engineering Entrance Examination who do not submit the marks in the final year of the Qualifying Examination through the official website of the Commissioner for Entrance Examinations [www.cee.kerala.gov.in](http://www.cee.kerala.gov.in) and who do not produce the self attested copy of the mark list of final year of the Qualifying Examination on or before the date specified will not be included in the Engineering Rank List.
- 7.8 (a) **IMPORTANT:** DOCUMENTS OR CERTIFICATES FURNISHED AFTER THE SUBMISSION OF THE APPLICATION FOR MEDICAL & ALLIED COURSES, ENGINEERING & ARCHITECTURE COURSES WILL NOT BE ENTERTAINED UNDER ANY CIRCUMSTANCES. NO OPPORTUNITY WILL BE GIVEN TO INCORPORATE ANY DETAILS/CERTIFICATES AFTER THE SUBMISSION OF THE APPLICATION.\* (see clause 7.8(b) also)
- (b) CANDIDATES WHO ARE QUALIFIED IN THE ENGINEERING ENTRANCE EXAMINATION SHOULD SUBMIT THEIR MARKS OF THE FINAL YEAR OF THE QUALIFYING EXAMINATION ONLINE THROUGH OFFICIAL WEBSITE OF THE COMMISSIONER FOR ENTRANCE EXAMINATIONS AND SHOULD SEND ITS PRINTOUT ALONG WITH THE SELF ATTESTED COPY OF THE MARK LIST ON OR BEFORE 05.06.2017.
- (c) NON-CREAMY LAYER CERTIFICATE, INCOME CERTIFICATE & COMMUNITY CERTIFICATE SHOULD BE IN ORIGINAL IN THE PRESCRIBED FORMAT, AND WILL BE CONSIDERED ONLY IF SENT ALONG WITH THE PRINTOUT OF THE ONLINE APPLICATION.

\* Refer to the ruling of the Honorable High Court of Kerala in 1995(2) KLT 629, 1999(2) KLJ 836 and 1999(3) KLT 773.

8. **SUBMISSION OF PRINTOUT OF ONLINE APPLICATION : THE PRINTOUT OF THE ONLINE APPLICATION WITH ALL REQUIRED CERTIFICATES/DOCUMENTS SHOULD BE ENCLOSED IN AN ENVELOPE ADDRESSED TO 'THE COMMISSIONER FOR ENTRANCE EXAMINATIONS, 5<sup>TH</sup> FLOOR, HOUSING BOARD BUILDINGS, SANTHI NAGAR, THIRUVANANTHAPURAM-695 001' AND SHOULD REACH THE ADDRESSEE BY REGISTERED POST/SPEED POST/HAND DELIVERY, BEFORE THE LAST DATE AND TIME NOTIFIED BY THE COMMISSIONER.**

**WARNING: BELATED APPLICATIONS WILL BE REJECTED**

## 9. EXAMINATIONS

### 9.1 Venues:

Entrance Examinations will be held at the selected venues in all Districts in the State, Mumbai, New Delhi and Dubai.

- 9.1.1 No request for change in the Examination centre will be entertained.

### 9.2 Papers/Subjects in the Entrance Examinations:

G.O.(Ms)No.153/99/H.Edn. Dated 22.11.1999 stipulates that the Entrance Examination for Engineering courses will be conducted with a relative weightage of 5:3:2 in Mathematics, Physics & Chemistry. Candidates applying for admission to Medical & Allied Courses including MBBS/BDS shall have to appear for NEET-UG 2017 and qualify as per the qualifying criteria mentioned in the Information Bulletin of NEET-UG 2017.

As per the Guidelines issued by the Council of Architecture, there will be a centralised mechanism of conducting a "National Aptitude Test in Architecture" (NATA), which is mandatory for admission to the 5-year B. Arch. Course in all Architecture institutions in

- India, which includes NITs and IITs, Government institutions, Government Aided institutions, Universities, Deemed Universities and Private Universities formed by a Central or State Legislature and other Private Self-financing institutions. The CEE will not conduct 'Aptitude Test' for B. Arch. course in view of the guidelines issued by the Council of Architecture.
- 9.2.1 **Papers for the Engineering Entrance Examination:**  
 Paper I - Physics & Chemistry  
 Paper II - Mathematics
- Each Paper will be of two and a half hours duration.
- 9.2.2 Candidates desirous of being considered for any of the Medical & Allied courses including MBBS/BDS, will have to write NEET-UG 2017 conducted by the CBSE.
- 9.2.3 Candidates who wish to be considered ONLY for Engineering Courses [including B.Tech. (Agri. Engg.), B.Tech. (Food Engg. & Tech) courses under the Kerala Agricultural University, B. Tech. (Dairy Technology) and B.Tech (Food Technology) courses under Kerala Veterinary and Animal Sciences University and B.Tech (Food Science & Technology) course under Kerala University of Fisheries and Ocean Studies], will have to write Paper I - Physics & Chemistry and Paper II - Mathematics of the Engineering Entrance Examination.
- 9.2.4 Candidates desirous of being considered for Architecture course should appear for the "National Aptitude Test in Architecture" (NATA) to be conducted by the Council of Architecture, India and to get qualified in NATA on or before 10.06.2017. Candidates included in the Engineering rank list will not be considered for admission to B. Arch. course based on their Engineering rank.
- 9.3 **Non - appearance in any Paper:**
- 9.3.1 A candidate NOT appearing in any one of the papers, in Engineering Entrance Examination, will be disqualified, and WILL NOT be considered for ranking in Engineering Entrance Examination. In other words, appearance in the two relevant papers: Paper I - Physics & Chemistry and Paper II - Mathematics is compulsory for being considered in the Engineering rank list.
- 9.3.2 Only those candidates having the prescribed minimum qualifying marks as stipulated under Clause 6.2.3 and having a valid 'NATA' score will be considered for preparing the rank list of Architecture Course. [Also see clause 9.7.4 (f)(ii)]
- 9.3.3 A candidate NOT appearing for NEET-UG 2017 will not be considered for preparation of rank lists for admission to Medical & Allied courses including MBBS/BDS.
- 9.3.4 Appearance of a candidate in the Entrance Examination, or inclusion of a candidate in the rank lists or allotment does not entitle him/her for admission to a course, unless the rules regarding eligibility for admission, as laid down in the Prospectus under various Clauses, are satisfied.
- 9.4 **Scheme of the Examination:**
- 9.4.1 The Engineering Entrance Examination will be objective type with Multiple Choice Questions and based on single response. For each question, five suggested answers would be given, of which only one will be the MOST APPROPRIATE RESPONSE. The candidate will have to select and mark the alphabet (A, B, C, D or E) corresponding to the most appropriate response in the OMR Answer Sheet. (A specimen answer sheet is appended as Annexure XXIV).
- 9.4.2 The question paper for objective type examinations will be given in the form of Question Booklets. Candidates will be permitted to take the question booklet with them at the end of examination.
- 9.4.3 For Engineering Entrance Examination, each Paper will have 120 questions to be answered in 150 minutes.
- 9.4.4 **Scoring, negative marks:** For each correct response in the Engineering Entrance Examination, the candidates will be awarded FOUR marks, and for each incorrect response, ONE mark will be deducted from the total score. For each paper, in the event of failure to answer a question, (that is, no response is indicated against a question in the answer-sheet) no deduction from the total score will be made. More than one answer indicated against a question will be deemed as incorrect response, and will be awarded negative marks. Therefore the candidates are advised not to attempt an answer, if they are not sure of the correct response, because mere guessing may lead to choice of wrong answers, with the consequent penalty of negative marks. However, the candidates who fail to answer at least one question in each paper will be disqualified.
- 9.5 **The standard of the Examination:**
- 9.5.1 The standard of the Entrance Examination will be that of Higher Secondary or equivalent examinations. The syllabi for all the subjects for the Entrance Examination are given in Annexure I of the Prospectus.

9.5.2 The syllabi published in the Prospectus are only outlines of the topics that will be covered in the examination. Since the examinations are of highly competitive nature and the cream of the competing students has to be found out through a process of elimination, questions of applied nature of higher order on the topics included in the published syllabi can be expected. Questions are not based on NCERT textbooks or any other textbooks exclusively.

9.6 The Conduct of Examinations:

9.6.1 Dates of the Engineering Entrance Examination:

The Engineering Entrance Examination will be conducted at selected venues as per the following schedule and as per Indian Standard Time:

24.04. 2017 (Monday)	10.00 am to 12.30 pm	Paper I - Physics & Chemistry
25.04. 2017 (Tuesday)	10.00 am to 12.30 pm	Paper II - Mathematics

9.6.2 Online Admit Cards:

- (a) The Admit Card for the Entrance Examination can be downloaded from the official website of the Commissioner for Entrance Examinations, [www.cee.kerala.gov.in](http://www.cee.kerala.gov.in) . The candidates will have to enter their Application number and Date of Birth provided in the application form in order to download the admit card. They will have to take a printout of the admit card. Admit cards will not be sent by post from the Office of the Commissioner for Entrance Examinations. Help Desks and Facilitation Centres will be functioning across the State from where candidates can download and take printouts of admit card. The venue of the examination and time table will be noted in the admit card. Separate notification in this regard will be issued.
- (b) Rejection memo will be sent to candidates whose application has been rejected.
- (c) No memo will be sent by post in the case of defective applications. The defects in the applications will be displayed on the homepage of the candidate while attempting to download the admit card by giving his/her Application Number and Date of Birth. Defects if any, should be rectified within the dates specified in the notification pertaining to the download of admit cards.
- (d) All candidates whose application has been accepted should download their admit card well in advance. A candidate who does not possess the Admit Card will not be admitted to the Examination Hall under any circumstances.

9.6.3 Location of Liaison Officers: The Liaison Officers of KEAM-2017 will be present in the following locations between 9 a.m. and 1 p.m. on 23.04. 2017.

Thiruvananthapuram	Govt. Model HSS, Thycaud, Trivandrum	0471 - 2323641
Kollam	Govt. Model BHSS, Thevally, Kollam	0474 - 2794892
Pathanamthitta	Govt. HSS, Pathanamthitta	0468 - 2222629
Alappuzha	Govt. Mohammadans Girls HS, Alappuzha	0477 - 2260227
Kottayam	Govt. Model HSS, Kottayam	0481 - 2582932
Thodupuzha	Govt. HSS, Thodupuzha	0486 - 2223217
Kattappana	Govt. Tribal HSS, Kattappana	04868 - 272124
Ernakulam	SRV Govt. Model VHS School, Ernakulam	0484 - 2376944
Thrissur	Govt. Model HSS for Boys, Thrissur	0487 - 2331063
Palakkad	Govt. Model Moyan HSS for Girls, Palakkad	0491 - 2544747
Malappuram	Govt. Girls HSS, Malappuram	0483 - 2738115
Kozhikode	Govt. Model H S School, Kozhikode	0495 - 2722509
Wyanad	Govt. VHS School, Kalpetta	04936 - 204082
Kannur	Govt. VHS School, Civil Station, Kannur	0497 - 2700891
Kasaragod	Govt. V.H.S.S. for Girls, Kasaragod	04994 - 230368
Mumbai	Sree Narayana Guru College of Commerce, Chembur, Mumbai	022-25254018
New Delhi	Kerala House, New Delhi	011- 30411411
Dubai	The Indian High School, Oudh Mehta Road, P O Box No.106, Dubai, UAE	009714-3377475

9.6.4 **Important:**

If any candidate has any genuine complaint regarding the conduct of the examination, he/she may register his/her complaint, before the Chief Superintendent of the examination centre, with supporting details/information, immediately after the particular examination is over. Complaints relating to the conduct of the examination received directly in the Office of the Commissioner for Entrance Examinations will not be entertained.

9.6.5 **No Re-examination:** Re-examination for those who are unable to appear in the KEAM-2017 entrance examination for any reasons on the scheduled dates of KEAM-2017 shall not be held under any circumstances.

9.7 **Declaration of Results:**

9.7.1 The Commissioner for Entrance Examinations will publish the "Answer Keys" of both the Papers of the Engineering Entrance Examination on the website of the CEE ([www.cee-kerala.org](http://www.cee-kerala.org)) and the same will be notified in leading dailies, after the completion of the examination.

9.7.2 If any candidate has any complaint regarding the answer keys, the same should be submitted to the CEE in writing along with supporting documents and a fee of Rs.100/- per question by way of DD in favour of CEE, payable at Thiruvananthapuram, within 5 days from the date of publication of the answer keys on the website of the CEE. If the complaint filed is found to be genuine, the fee remitted while filing the complaint will be refunded. Complaints received after the stipulated date and without requisite fee will not be considered under any circumstances. Complaints received by E-mail/Fax will not be considered on any account.

9.7.3 All complaints on Answer keys received will be referred to subject expert committees to be constituted by the CEE. **The recommendations of the Committees will be final.** Necessary modifications will be made in the published answer keys based on the recommendations of the committees and the marks for the deleted questions, if any, shall be distributed as per the ruling of the Hon'ble High Court of Kerala in 2002(3) KLT 871. Individual replies will not be given to the candidates on the decision of the Committees.

9.7.4 **Preparation of Rank Lists:**

(a) There will be separate rank lists for

- i. Engineering Courses
- ii. Architecture Course
- iii. MBBS/BDS
- iv. Medical & Allied Courses (except MBBS/BDS/BAMS)
- v. BAMS Course

The Rank List(s) published by the CEE shall not be utilized by any person/institution/authority other than CEE for the purpose of admission to any Professional Course(s), without prior written permission of the Government of Kerala.

(b) **Rank list for Engineering courses**

- (i) Equal weightage of 50:50 shall be given to the score obtained in the Entrance Examination for Engineering (Paper I & Paper II put together), and the grade/marks obtained in the final year of the qualifying examination for Mathematics, Physics and Chemistry put together, after effecting the standardization procedure as described in Clause 9.7.4 (b)(iii). In case, the candidate has not studied Chemistry, the marks obtained in Computer Science shall be considered. In case, the candidate has not studied Chemistry and Computer Science, the marks obtained in Biotechnology shall be considered. In case, the candidate has not studied Chemistry, Computer Science and Biotechnology, the marks obtained in Biology shall be considered.
- (ii) The final year marks of the qualifying examination of each subject Mathematics, Physics and Chemistry/Computer Science/Biotechnology/Biology of the students who have passed the subject, received from the respective Boards, shall be transformed out of 100. The marks of the three subjects shall be computed out of 300 after effecting standardization in each subject.
- (iii) The formula for standardization as has been approved by the Expert Committee constituted vide G.O.(Rt)No.1758/2011/H.Edn. dated.03.11.2011: The marks secured by a student in the qualifying examination from any Board will be standardized with respect to the statistical parameters such as Global Mean and Global Standard Deviation.

The standardized mark  $Y_{BG}$  of a candidate of the stream (B) standardized with respect to the global reference stream (G) for the subject is



$$Y_{BG} = M_G + S_G \left( \frac{X_{Bj} - M_{Bj}}{S_{Bj}} \right)$$

Where  $M_{Bj}$  and  $S_{Bj}$  denote respectively the Mean and Standard Deviation of the marks out of 100 of all students who have passed in a subject of the final year of qualifying examination of any stream (B) of the year j and  $X_{Bj}$  is the mark of a candidate out of 100 for the subject in the stream (B) of the year j.

The Global Mean ( $M_G$ ) of a subject is the combined average of the marks of that subject out of hundred of all students who have passed in that subject (Mathematics, Physics and Chemistry/Computer Science/Biotechnology/Biology as the case may be), of the final year of the Qualifying Examination of Kerala HSE, Kerala VHSE, CBSE and CISCE Boards taken together for the period from 2009 to 2017. The Global Standard Deviation ( $S_G$ ) of the subject is the combined standard deviation of marks of that subject out of hundred of all students who have passed in that subject (Mathematics, Physics and Chemistry/Computer Science/Biotechnology/Biology as the case may be), of the final year of the Qualifying Examination of Kerala HSE, Kerala VHSE, CBSE and CISCE Boards taken together for the period from 2009 to 2017.

- (iv) The subjects of the qualifying examination considered for the computation of marks for the purpose of ranking shall be Mathematics, Physics and Chemistry. The marks of the concerned subject out of hundred or an equivalent mark out of hundred, as given in the final year mark list of the Qualifying Examination of any plus two stream shall be considered. In case, the candidate has not studied Chemistry, the marks obtained in Computer Science shall be considered. In case, the candidate has not studied Chemistry and Computer Science, the marks obtained in Biotechnology shall be considered. In case, the candidate has not studied Chemistry, Computer Science and Biotechnology, the marks obtained in Biology shall be considered.
  - (v) Standardization of the marks of the subjects as per the clauses 9.7.4(b)(iii) & (iv) will be effected under the supervision of the Authority concerned. The standardized mark  $Y_{BG}$  shall be taken as it is obtained from the formula given in clause 9.7.4 (b) (iii) .The sum of the standardized marks of three subjects Mathematics, Physics and Chemistry/Computer Science/Biotechnology/ Biology as the case may be, shall be limited to three hundred.
  - (vi) The score obtained by the candidate in the Engineering Entrance Examination (Paper I & Paper II put together) shall be computed out of 300, and added to the total standardized marks of Mathematics, Physics and Chemistry/Computer Science/Biotechnology/Biology as the case may be, of the final year of the Qualifying Examination, computed out of 300, both corrected to four places of decimals. The rank list for Engineering Courses shall be prepared based on the total marks obtained out of an Index mark of 600, computed as above.
  - (vii) If any Board/Authority provides results by letter grades/CGPA/OGPA etc., the candidate concerned shall have to submit the marks equivalent as required, from the Board/Authority concerned, failing which the decision on standardization of marks shall be taken based on the available information by the Committee of Statisticians constituted vide G.O.(Rt) No.1907/11/H.Edn. dated.25.11.2011, which shall be final and binding on the applicant.
  - (viii) If any Board/Authority fails to provide data required for the process of standardization for any year, the mean and standard deviation available for the nearest year after the year of passing of the candidate for the concerned Board/Authority shall be considered for standardization of marks and such decision shall be final and binding on the applicant.
  - (ix) If any Board/Authority fails to provide data requested and required for the process of standardization and the data for the nearest years after the year of passing of the candidate are also not available, then the mean and standard deviation of CBSE for the respective years, or in the absence of such information from CBSE, the mean and standard deviation of CBSE available for the nearest year after the year of passing of the candidate shall be considered for standardization of marks and such decision shall be final and binding on the applicant.
- (c) **Rank list for admission to B. Arch Course** will be prepared by giving equal weightage to the score obtained in the 'National Aptitude Test in Architecture' (NATA) and to the marks/grades obtained in the Qualifying Examination by the candidate (As per guidelines of the Council of Architecture, India).

Marks obtained by the candidate in the National Aptitude Test in Architecture (NATA) out of 200 will be added to the total marks/\*grades secured by the candidate in the Qualifying Examination computed out of 200. The Rank list will be prepared based on the total marks

obtained out of 400, computed as above (\* If grades are awarded to candidates in their Qualifying Examination, it will be converted to equivalent marks for this purpose).

Candidates to be considered for inclusion in the rank list for allotment to B. Arch course in all institutions including private Self-financing Colleges have to appear for 'NATA' and secure minimum score as prescribed by COA. [Refer Clause 6.2.3 (b)]

- (d) (i) **Rank list for MBBS/BDS Courses** will be prepared on the basis of rank obtained in NEET-UG 2017 subject to the Nativity conditions as in Clause 6.1 and also subject to the qualifying criteria as per the Information Bulletin of NEET-UG 2017.
- (ii) **Rank list for Medical & Allied courses (except MBBS,BDS, BAMS)** will be prepared on the basis of rank obtained in NEET-UG 2017 subject to satisfying the Nativity conditions as in Clause 6.1 and also subject to the qualifying criteria as per Clause 9.7.5(iii).
- (e) **Rank List for Ayurveda Course:** A separate rank list for Ayurveda Course will be prepared based on the score obtained in NEET-UG 2017. For candidates who have taken Sanskrit as their second language in Higher Secondary or equivalent examination, additional 8 marks will be added to the total marks secured by them in the NEET-UG 2017 for the preparation of Ayurveda rank list. For others, the total marks in the NEET-UG 2017 alone will be considered.
- (f) **Resolution of tie while ranking:**
- (i) **Engineering:** In the case of a tie in the total marks computed for preparation of Engineering rank, candidate with higher marks in Mathematics in the Entrance Examination will be placed higher in the ranking. If the tie still exists, candidate with higher marks in Physics of the Physics & Chemistry Paper in the Entrance Examination will be placed higher in the ranking. If there is still a tie, candidate with higher standardized marks in Mathematics of the final year of the qualifying examination will be placed higher in the ranking. If the tie still persists, candidate with higher standardized marks in Physics of the final year of the qualifying examination will be placed higher in the ranking. If there is still a tie, the age of the candidate will be taken into account and the older will be placed higher in the ranking.
- (ii) **Architecture:** In the case of a tie in the total marks computed out of 400 as described in Clause 9.7.4 (c), candidates getting higher score in 'NATA' will be placed higher in the ranking. If there is still a tie, candidates with higher marks in Mathematics in the Qualifying examination, will be placed higher in the ranking. If there is still a tie, the age of the candidate will be taken into account and the older will be placed higher in the ranking.
- (iii) **Ayurveda:** In the case of a tie in the total marks computed for preparing the Ayurveda Rank list, candidates with higher NEET-UG rank will be placed higher in the ranking.

Note:- The candidates should send the attested copies of mark lists of Higher Secondary course or its equivalent course and/or NATA Score Card or any other document required to prepare the rank lists of KEAM-2017 within the date specified in the Notifications issued for the purpose by the CEE. The copy of the mark list and NATA Score Card submitted along with the printout of the applications or for other purposes will not be considered for preparation of the rank list.

#### 9.7.5 Qualifying Standards in the Entrance Examination for admission to various courses:

- (i) To qualify in the Engineering Entrance Examination and thereby become eligible to figure in the Engineering rank list, a candidate has to score a minimum of 10 marks each in Paper I and Paper II of the Engineering Entrance Examination. The candidates who do not score the minimum stipulated marks will not find a place in the rank list.

**Exemption:** For SC/ST candidates there is no requirement of minimum marks in the Engineering Entrance Examination. However, the candidates who fail to answer at least one question in each paper will be disqualified.

- (ii) **Qualifying Standards as per the Information Bulletin of NEET-UG 2017 for admission to MBBS/BDS Courses:**

As per the Information Bulletin of NEET-UG 2017

- (iii) To qualify and thereby become eligible to figure in the rank list for Medical & Allied Courses (except MBBS/BDS), a candidate has to score a minimum of 20 marks in the NEET-UG 2017. The candidates who do not score the minimum stipulated marks will not find a place in the rank list.

**Exemption:** For SC/ST candidates there is no requirement of minimum marks in the NEET-UG for admission to Medical & Allied courses (except MBBS/BDS).

- (iv) **Qualifying Standards as stipulated by the Council of Architecture for admission to Architecture Course:**

In addition to the academic eligibility prescribed under Clause 6.2.3, only those candidates who score the minimum eligibility marks as per the Information Brochure of National

Aptitude Test in Architecture (NATA) 2017 will be considered for admission to B. Arch. Course. (As per guidelines of the Council of Architecture, India.) The candidates are advised to qualify in the NATA on or before 10.06.2017.

9.7.6 **Valuation of Answer Papers:** A fully computerised system is being used for evaluation of answer scripts of objective type papers, using the Optical Mark Reading (OMR) System, and for the preparation of the rank lists and various merit lists. There is no provision for revaluation or rechecking of answer sheets as the valuation or scoring will be error-free. No correspondence in this regard will be entertained.

9.7.7 **Publication of the Results:** The rank lists for Engineering, Architecture, MBBS/BDS, Medical & Allied (except MBBS/BDS/BAMS) and Ayurveda will be published separately. The results will be available on the website "www.cee-kerala.org" and on other websites to be notified by the CEE.

9.7.8 The rank lists for Engineering, Architecture, MBBS/BDS, Medical & Allied (except MBBS/BDS/BAMS) and Ayurveda courses will be published on or before 20<sup>th</sup> June 2017.

9.7.9 Candidates seeking admission to Architecture course have to appear for the National Aptitude Test in Architecture as mentioned under Clauses 1.4, 6.2.3, 9.2.4 & 9.7.5. Such candidates should submit:

(i) Photocopy of the mark list of their qualifying examination attested by a Government Gazetted Officer, (ii) An attested copy of the original 'NATA' score sheet and (iii) A filled-in Proforma to be downloaded from the website of the CEE (www.cee.kerala.gov.in), to the CEE so as to reach him on or before 10.06.2017. Detailed notification in this regard will be issued by the CEE, in due course.

The rank list for Architecture will be published after this date. The marks of the qualifying examination and NATA score received on or before 10.06.2017 alone will be considered for preparing the Architecture Rank list. The rank list so published will be final and the marks received subsequently will not be considered under any circumstances. The CEE will not be responsible for any delay in the publication of the result of the qualifying examination or NATA.

9.7.10 (a) **Validity of the rank lists published by the CEE:**

(i) Engineering Rank list will be valid till 15.08.2017 as per the orders of the Hon'ble Supreme Court of India dated 13.12.2012 in CA No.9047 & 9048 of 2012.

(ii) Architecture Rank list will be valid till 15.08.2017

(iii) Rank list of MBBS/BDS courses will be valid till 31.08.2017

(iv) Rank list for Medical & Allied courses will be valid till 31.10.2017

(v) Ayurveda Rank list will be valid till 31.10. 2017

(b) **Weeding out Rule:** The records of KEAM 2017 will be preserved only till 31<sup>st</sup> October 2017.

9.7.11 **Publication of Provisional Category Lists:**

(a) Separate provisional category lists will be published for Community reservation, Special reservation, Persons with Disabilities, etc.

(b) There will be separate category lists based on Engineering, Architecture, MBBS/BDS, Medical & Allied and Ayurveda rank lists.

Candidates are advised to verify the various merit/category lists published by the Commissioner for Entrance Examinations, and satisfy themselves regarding their position in the list, such as, inclusion under different categories, eligibility for communal/special reservation, etc. Complaints, if any, in this regard may be sent to the Office of the Commissioner for Entrance Examinations, within the period specified in the publication of the lists concerned, for necessary action. Revised Category list will be published after considering the objections/complaints, filed by the candidates. Complaints received thereafter will not be entertained under any circumstances.

**Complaints against category list are to be filed within the period specified in the publication of the category list.**

(c) Admission to the Entrance Examinations, and the rank obtained in the Entrance Examinations or inclusion in the merit lists or allotment, will not entitle the applicant for admission to the course, unless the applicant satisfies the rules regarding the eligibility for admission as laid down in the Prospectus. Furnishing of false particulars would result in the forfeiture of the candidature, as well as cancellation of admission to the course, and in addition, will attract the relevant provisions of the Criminal Laws of the Land. If any information or documents furnished along with the printout of the application by a candidate are found false or ineligibility for admission is detected before or after

admissions, candidature of the applicant will be withdrawn and admission, if any, given will be cancelled.

**10. SPECIAL INSTRUCTIONS TO THE CANDIDATES APPEARING FOR THE ENGINEERING ENTRANCE EXAMINATION 2017**

**Note:** Read the following instructions carefully. Failure to observe instructions may upset the candidate's performance.

**10.1 Reporting for the Examination:**

- (i) Candidates should bring Admit card, ballpoint pen (either blue or black ink) and a card board/clip board for the Examination.
- (ii) Candidates will not be permitted to take items such as pencil, eraser, correction fluid, calculator, logarithm table, electronic gadgets, mobile phones etc. into the examination hall.
- (iii) Candidate should be present at the examination hall, 30 minutes before the prescribed time for the commencement of the examination.
- (iv) No candidate will be permitted to enter the examination hall, 30 minutes after the commencement of the examination.
- (v) Candidates will be permitted to leave the examination hall only after completion of the examination.

**10.2 Question Paper:**

**10.2.1** The question papers will be given in the form of a question booklet. A candidate will be given the question booklet before the actual time prescribed for the commencement of the examination, to enable him/her to acquaint himself/herself with the instructions to be followed.

**FACING PAGE LAYOUT OF QUESTION BOOKLET (*Engineering*)**

<b>WARNING :</b> Any malpractice or any attempt to commit any kind of malpractice in the Examination will <b>DISQUALIFY THE CANDIDATE.</b>			
<b>PAPER</b>			
Version Code		Question Booklet Serial Number	
Time : 150 Minutes		Number of Questions : 120	Maximum Marks : 480
Name of Candidate			
Roll Number			
Signature of Candidate			
<b>INSTRUCTIONS TO THE CANDIDATE</b>			

**10.2.2** Each question paper will have 4 versions as detailed below:

**Engineering Entrance Examination:**

**Paper I - Physics & Chemistry**

**Versions - A1, A2, A3 & A4.**

**Paper II - Mathematics**

**Versions - B1, B2, B3 & B4.**

**10.2.3** The question booklet version will be printed on the top left margin of the facing sheet of the question booklet.

**10.2.4** If the Roll Number ends in an odd number, then the candidate should get a question booklet marked A1/B1/A3/B3. If the Roll Number ends in an even number, then the candidate should get a question booklet marked A2/B2/A4/B4.

**10.2.5** On receipt of the question booklet the candidate should ensure that the Version Code printed in the Admit Card and in the question booklet are the same.

**10.2.6** If the candidate gets a question booklet where the version does not match the Roll Number as stipulated in 10.2.4, he/she should draw the attention of the invigilator immediately, and get it replaced by a version that matches the Roll Number.

**10.2.7** The question booklet serial number is printed on the top right margin of the facing sheet. If the question booklet does not bear a serial number, get it replaced by a new question booklet of the same version having a booklet number printed.

**10.2.8** Candidate must write his/her name and roll number in the space provided in the Question booklet. The Roll Number should be written carefully. The column for the signature of the candidate should also be filled in (The signature should be identical with the signatures in the admit card and in the attendance sheet).

**10.2.9** The question booklet will be sealed at the middle of the right margin. The candidate should not open the question booklet, until an indication is given by the invigilator to start answering at the scheduled time.

10.3 **Answer Sheet:**

10.3.1 Separate answer sheet (OMR Answer Sheet) having a copy of the original OMR sheet attached to it, will be given to mark the answers. **Candidates should not detach the copy of the OMR sheet from the Original during the course of Examination.** All impressions made in the original OMR sheet will be carried over to the copy attached. Hence candidates, while making entries in the OMR sheet and while answering, should ensure that the copy of the OMR is always aligned with the original OMR sheet. Any change in alignment can result in variation of the position of the entries in the original and copy of OMR sheets. If any candidate detaches the copy before the conclusion of the examination, his/her candidature is liable to be cancelled.

10.3.2 The evaluation of the answer sheet of objective type papers will be done using the **OPTICAL MARK READING (OMR)** System. Hence the answer sheet (OMR answer sheet) is designed to suit this system.

10.3.3 A specimen copy of the OMR answer sheet is included in the Prospectus.(Annexure XXIII). Each answer sheet will be having a unique pre-printed 'BARCODE' that will be used as a secret code against which the evaluation takes place. Candidates should not tamper with the BAR CODE. If a candidate tampers, mutilates or damages the barcode, it will be treated as malpractice as per Clause 10.10 and he/she will be liable for punishment as per Clause 10.10.2. The answer sheet in respect of such candidates will not be subjected to valuation.

10.3.4 **IMPORTANT:** Extra care is needed while handling the OMR Answer sheet in the following respects.

DO NOT: (i) Pin or staple (ii) Punch or tag (iii) Make holes anywhere (iv) Wet or soil (v) Tear or mutilate (vi) Wrinkle or fold the OMR Answer Sheet.

10.4 Filling in the OMR Answer Sheet:

**IMPORTANT**

10.4.1 All entries in OMR answer sheet are to be made with blue or black ink **BALLPOINT PEN** only. Marking with fountain pen, gel pen, sketch pen or pencil is not permitted. Use of any ink of colour other than blue or black is not permissible.

10.4.2 The answer sheet has two parts - "CANDIDATE'S DATA" on the left side and "ANSWERS" on the right with a thin perforation in between, length-wise. Fill in all the entries on the left side (Candidate's Data part) before beginning to answer questions.

(a) **CANDIDATE'S DATA PART:** (Left side of the sheet)

Fill in the boxes and the appropriate bubbles with blue or black ink ballpoint pen.

i) **Version Code:** Fill in and mark the Version Code as given in the Question Booklet with blue or black ink ballpoint pen. The Version Code should be entered without any corrections or overwriting.

ii) **Roll Number:** Fill in and mark the Roll No. as given in the admit card with ballpoint pen. The Roll number should be entered without any corrections or overwriting.

iii) **Question booklet Sl. No.** has to be entered as given in the top right side of your question booklet.

iv) **Name:** Fill up the item correctly and legibly. Name is to be entered as given in the admit card with ballpoint pen.

v) Fill up the Roll Number again.

vi) **Name of subject:** Enter name of the subject.

vii) **Signature of the Candidate:** The candidate has to sign in this box and should be identical with the signature affixed in the admit card and attendance sheet.

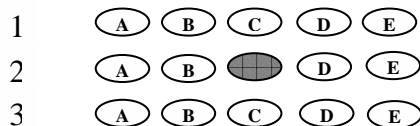
The item for signature of the invigilator will be filled in by the concerned person.

(b) **ANSWER PART OF THE OMR SHEET:** (Right side of the sheet)

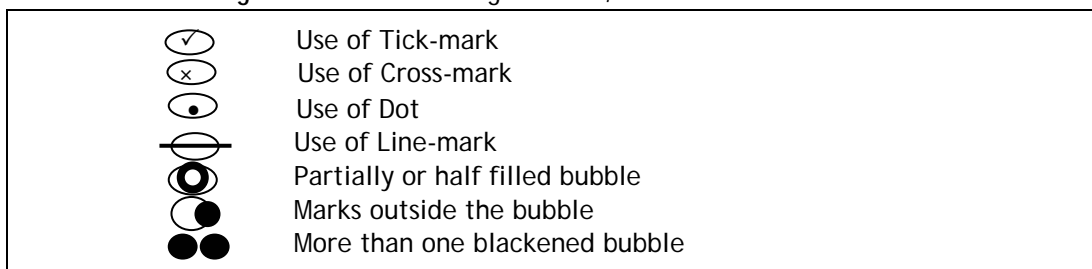
Do not write your roll number or name or make any stray marks on this part of the sheet. Do the marking for answers only in the spaces provided (bubbles).

10.4.3 Method of marking:

- (a) The Answer part of the OMR sheet (right side) consists of ovals, known as 'bubbles'. USE ONLY BALLPOINT PEN (BLUE OR BLACK INK) for filling (marking) these bubbles. Marking with any other colour or with sketch/gel pen is not permitted.
- (b) Each question will have five answers marked (A), (B), (C), (D) and (E). The most appropriate answer will have to be selected. Thereafter, using ballpoint pen (blue or black ink) mark the bubble corresponding to the most appropriate answer. For example if the answer to question 2 is C, bubble C has to be darkened as shown:



- (c) Mark only one bubble for each question. The bubble should be filled completely and must be dark.
- (d) Here are some **wrong methods** of marking answers, such as



In all these cases mentioned above, though the candidate may have given the correct answer, it may not be read by the scanner because of the wrong method of marking the answer.

- (e) The bubble should be filled completely. Candidates are advised not to make any special effort to mark bubbles artistically.
- (f) Warning: Marking once made will be final.
- (g) Any attempt to erase the mark once made will leave smudges or marks on the bubble, which will treat it as a valid mark.
- (h) Any fresh mark made after attempting erasure of an already marked bubble will lead to multiple marks with the consequent penalty of **negative marks**.
- 10.5 The question booklet for each paper will be supplied to the candidate only five minutes before the actual time prescribed for the commencement of the examinations. The candidates should take care to mark the necessary entries, in the question booklet as well as on the OMR answer sheet immediately before beginning to answer the questions.
- 10.6 Immediately after the commencement of the examination, the candidate should check that the question booklet supplied is of the correct version and that it contains all the 120 questions in serial order. The question booklet should not have unprinted or torn or missing pages in it. If the question booklet does not agree with the above, the matter should be brought to the immediate attention of the invigilator. In such cases the invigilator should take immediate action to rectify the same by issuing the candidate a question booklet of the same version. The question booklet initially issued will be taken back only after the replacement is made.
- 10.7 Candidates are warned that they should enter only the necessary information as required in the OMR answer sheet (on the left part). Any additional information, which is not required and which may help to identify the candidate (made in any part of the OMR sheet), will be treated as malpractice activity as per Clause 10.10 and will be dealt as per Clause 10.10.2.
- 10.8 Candidates will get the copy of the OMR sheet after the completion of the examination. The copy which is attached to the Main OMR sheet will be detached by the Invigilator in the presence of the candidate after the completion of the examination. The candidates will be permitted to carry this copy with them after the Examination.
- 10.9 Any mistake in filling up the data part of the OMR sheet or in marking the answers will affect the valuation of the script adversely.

## 10.10 WARNING AGAINST MALPRACTICE

Malpractice is an activity that allows a candidate to gain an unfair advantage over other candidates. It includes, but not limited to:

- a) Having in possession of papers, books, notes, correction fluid, whitener, correction pen, blade, pencil, eraser, electronic devices or any other material or information relevant to the examination concerned;
- b) Paying someone to write examination (impersonation) or prepare material;
- c) Breaching examination rules;
- d) Assisting another candidate to engage in malpractice or attempting to do so;
- e) Contacting or communicating or trying to do so with any person, other than the Examination Staff, during the examination time in the examination hall;
- f) Taking away the answer sheet out of the examination hall;
- g) Threatening any of the officials connected with the conduct of the examination or threatening any of the candidates;
- h) Using or attempting to use any other undesirable method or means in connection with the examination;
- i) Manipulation & fabrication in online documents viz. Admit card, Allotment letter, Data sheet etc;
- j) Forceful entry in Examination Hall with malafide intentions;
- k) Possession of Calculators, Slide Rules, Log Tables, Geometry Box, Pencil box, Electronic Digital Watches with facilities of calculators, mobile phones, pagers or any other electronic gadget which are not allowed inside the Examination Hall;
- l) Tampering of Barcode in the OMR sheet or mutilation of OMR sheet or marking unnecessary information on OMR.
- m) Affixing of fabricated photograph on the application form;
- n) Affixing of fabricated thumb impression on the application form;

**Note:** Parents/Guardians are advised to ensure that their ward does not indulge in unfair activities/malpractices which breach the examination rules. If any candidate is found to indulge in any such activity he/she shall be liable for punishment as per Clause 10.10.2.

### 10.10.1 GUIDELINES TO CHIEF SUPERINTENDENT

In the event of observing malpractice activity in the examination hall by a candidate, the candidate shall not be allowed to continue to write the examination. The examination Question Booklet, OMR and admit card of the candidate who indulges in the malpractice activity along with the materials in possession at examination hall which the candidate used for malpractice at the examination hall such as Calculators, Electronic Digital Watches with facilities of calculators, mobile phones, pagers or any other electronic gadget etc shall be confiscated and reported to the CEE with a report signed by the Invigilator, Chief superintendent and Observer in a sealed cover through the CEE representative/Liaison Officer.

### 10.10.2 PUNISHMENT FOR MALPRACTICE

If a candidate is found to have indulged in any of the malpractice activities or similar practices, during the course of Kerala Engineering Entrance Examination, before or later on, shall be deemed to have committed malpractice at examination and his/her candidature in the entrance examination will be cancelled. **Such candidates shall be debarred from appearing the entrance examination conducted by CEE for not less than two years and shall also be liable for criminal action and /or any other action as deemed fit by CEE. Decision of the CEE in this regard shall be final.**

### 10.11 IMPERSONATION

If during the Kerala Engineering Entrance Examination or at any stage of allotment/admission process of KEAM 2017 it is found that candidates appearing in the Kerala Engineering Entrance Examination or in the admission process of KEAM 2017 at the allotted College have indulged in any case of impersonation i.e. not matching the photograph/signature/thumb impression/documents of the candidates etc. he/she shall be handed over to the Police by the Chief superintendent/Liaison Officer /Principal as the case may be and the cases shall be dealt as per the Indian Penal Code in this matter for further investigation. The matter shall also be reported to the CEE by the Chief Superintendent/Liaison Officer /Principal in writing.

**Such candidates will be debarred permanently from appearing for the KEAM Entrance Examination conducted by the CEE in future in addition to the cancellation of his/her candidature in the KEAM entrance examination of the year.**

## 11. CENTRALISED ALLOTMENT PROCESS (CAP) & ONLINE SUBMISSION OF OPTIONS

The Centralised Allotment Process will be done through the **Single Window System (SWS)** to give allotments to the various courses and colleges under the Engineering/ Architecture/Medical streams in the State, based on the options submitted by the candidates who have been included in the rank list of the Engineering/Architecture/ MBBS&BDS/Medical & Allied/Ayurveda courses for the year 2017, prepared by the Commissioner for Entrance Examinations (CEE), Kerala. This is a system of 'Allotments through Online Submission of Options'. The options are willingness of a candidate who qualified with a rank in the rank lists of KEAM-2017 to join a course-college combination prioritized as per his/her aspiration and desire subject to the conditions specified in Clauses 6 and 9.7.5. The CAP through which the Options are registered is a simple and transparent process of allotment to the Professional Degree Courses and it gives the candidate opportunity to exercise his/her options for courses and colleges of his/her choice conveniently in the order of his/her preference considering all those available to be chosen from. The allotments will be strictly based on the options exercised, the rank obtained and eligible reservations of the candidate. **Candidates should register options only to those courses/colleges which they are sure to join on allotment. If the candidate fails to remit fee/join the college, he/she will lose the allotment as well as all the existing options in the stream to which the allotment belongs. The options once lost will not be available in the subsequent phases. When an allotment is given to a candidate, the previous allotments, if any, shall automatically be cancelled.**

- 11.1 The online Centralized Allotment Process 2017 will be done by the Commissioner for Entrance Examinations (CEE), Kerala, with the technical support of the National Informatics Centre (NIC).
- 11.2 Seats in Government/Aided/KAU/KVASU/KUFOS/Self Financing Colleges to be allotted by the Commissioner for Entrance Examinations, will be included in the CAP and will be done as per the provisions of allotment.
- 11.3 (a) Seats for the Engineering, Architecture, MBBS, BDS, Ayurveda, Homoeo, Siddha, Unani courses and seats for the Agriculture & Forestry, Agricultural Engineering and Food Engineering and Technology Courses under the Kerala Agricultural University, Fisheries and Food Science & Technology course under Kerala University of Fisheries & Ocean Studies, and Veterinary & AH, Dairy Technology and Food Technology courses under Kerala Veterinary & Animal Sciences University will be available for allotments by CEE through the CAP.
- (b) The courses for Option Registration under CAP are classified as Engineering Stream and Medical Stream. All courses listed in Clauses 1.3.1 and 1.3.2 are included in Engineering Stream. All courses listed in Clauses 1.3.3, 1.3.4, 1.3.5 and 1.3.6 are included in Medical Stream.
- (c) The candidates are eligible to register option to the courses of any stream or both streams provided they are qualified with a rank in the respective rank lists of KEAM-2017 as per the conditions specified in Clauses 5, 6 and 9 of the KEAM-2017 Prospectus.
- (d) Only female candidates can register options to the courses in Women Colleges under CAP if they are otherwise qualified as per various Clauses of the KEAM-2017 Prospectus.
- 11.4 **Rules and regulations governing allotments through submission of options:**
- 11.4.1 **Candidate to register options:** Candidates included in the Rank lists for Engineering, Architecture, MBBS/BDS, other Medical & Allied and Ayurveda courses 2017, will have to register their options in the stream(s) concerned as prescribed under Clause 11.5, for being considered for allotments to the courses and colleges under the respective stream(s).
- 11.4.2 **Registering Options:** Options can be registered only through the website, "www.cee.kerala.gov.in". Candidates will have to register their options in single stream or multiple streams (based on their eligibility) in the 'Option Registration Page' accessible through the 'Candidate Portal' within the stipulated period of time. Candidates should access the 'Option Registration Page' and follow the instructions given therein and as described in Clause 11.5, to register their options for courses and colleges. **Options submitted to the CEE by Fax, Post, Hand delivery etc., will not be processed or considered on any account for allotment of seats.**
- 11.4.3 **Facility for Registering Options:** Candidates can register their options within the time schedule specified, using any computer having internet facility. Candidates who do not have access to Internet facility can use the facility provided free of cost, by the Government at various centres across the state. 'Option Facilitation Centres' (OFC) and 'Help Desks' (HD) will be opened across the state during a specified period for the candidates who need assistance for registering their options. The list of OFCs and HDs will be notified in due course. The Option Facilitation Centres and Help Desks will be functioning only during the period specified.
- 11.4.4 **Time schedule for registering options:** The facility for registering of options will be available only during the period specified in the notifications to be issued by the CEE. Wide publicity will be given through electronic and print media regarding the schedule and related matters. The facility



will be withdrawn once the time period is over and candidate will not have access to this facility after this time period. A candidate, not registering his/her options as per the time schedule announced, will not be considered for allotments under his/her eligible streams against any of the seats available then, irrespective of his/her rank. Requests for extension of time will not be entertained under any circumstances for registering options under any of the streams.

11.4.5 **Registering of options in respect of candidates included in different Rank Lists:** A candidate included in different rank lists, can register options of different streams simultaneously based on his/her order of priority of courses and colleges. All options available to the candidate, based on the streams he/she is eligible for, can be registered in a single registration. For example, a candidate included in the Engineering and Medical rank lists can register his/her options in the two streams together, within the specified period of time.

There is no separate time schedule for registering options under each of the streams. All options to all eligible streams will have to be registered as per the time schedule. No extension of time will be granted under any circumstances for registering options under any of the streams.

11.4.6 **Eligibility for registering options:** Only those candidates included in the different Rank Lists prepared and published by the CEE for 2017 are eligible to register their options in the stream concerned. Moreover, the candidates registering their options should satisfy all the eligibility conditions with regard to Nativity (Clause 6.1), Academic qualifications (Clause 6.2), Age (Clause 6.3), etc., of the Prospectus for admission to Professional Degree Courses 2017. **Academic eligibility should be satisfied on the date of admission for various Courses. Principal/Head of the Institution will be personally responsible for verification of eligibility condition as prescribed in the Prospectus, when the candidate reports for admission.** Only those candidates who are found to be qualified as prescribed shall be admitted to the college/institution irrespective of the fact that he/she has an allotment through the CAP.

11.4.7 **Essentials for registering options:** Candidates should have particulars such as Roll Number, Application Number, Key Number and Password of KEAM-2017 in order to register their options in the website.

i) **Roll number:** This is the six-digit Number allotted by CEE to the candidate which is given in the Admit Card of KEAM-2017.

(ii) **Application number:** This is the seven-digit number printed on the left top part of the facing sheet of the Application submitted by the candidate for KEAM 2017. This is also printed in the Admit Card issued by the CEE to the candidate.

(iii) **Key Number:** The Key number is the 16 digit alpha-numeric code which will be provided prior to the commencement of CAP. The Key number should not be disclosed to others who may misuse this, for which the CEE/Government will not be responsible.

**Note:-** Notification will be issued with regard to the issue of Key Number to the candidates.

(iv) **Password:** The Password to be used is same as the one created and used during the online application submission stage.

11.5 **Procedure for Registering Options:**

Any candidate, who wishes to register his/her options, should have the 'Roll Number', 'Application number', 'Key number' and 'Password' readily available with him/her. The candidate must also have access to internet facility. The candidate should follow the procedure given below for registering options:

(i) Log on to the 'Candidate Portal' through the website [www.cee.kerala.gov.in](http://www.cee.kerala.gov.in) using Roll Number and Application Number.

(ii) Log on to the 'Option Registration Page' using Key Number and Password.

(iii) Register Options.

(iv) Save the Options registered.

(v) View and Print the List of Options registered.

(vi) Log off from the 'Candidate Portal'.

11.5.1 **Accessing the website:** The candidate can access the website, '[www.cee.kerala.gov.in](http://www.cee.kerala.gov.in)' from any computer having internet facility. The platform can be Windows or Linux based and a recent version of Mozilla Firefox is the recommended browser to be used.

11.5.2 **Logging on to the 'Candidate Portal':** In order to log on to the 'Candidate Portal', click the link '[KEAM 2017-Candidate Portal](#)' given in the front page of the website, and submit the Roll number and the Application number correctly.

11.5.3 **Logging on to the 'Option Registration Page':** In order to log on to the 'Option Registration Page', click the link '[Option Registration](#)' given in the Candidate Portal, and submit the Key number and the Password correctly.

Failure to provide the correct password and/or the Key number will stop the candidate from proceeding to the Option Registration Page. It is the responsibility of the candidate to keep the password and the Key number safe and secure. In case, assistance is necessary for logging on to and accessing the Option Registration Page, the candidate may contact an Option Facilitation Centre (OFC). If the candidate cannot remember the password, he/she can reset it through the 'Forgot Password' link, given in the Candidate Portal. Similarly, a 'Forgot Key Number' link is also given in the Candidate Portal. If the candidate is unable to reset the password or regain the Key number using the online method, he/she can visit an OFC with the Admit Card and submit the filled in proforma for requesting password reset or Key number, as the case may be. The proformas for requesting password reset and Key number can be obtained by clicking the above mentioned links.

Roll number, Application number and Key number are candidate specific and hence are usable for the concerned candidate only. Disclosure of the Key Number and/or the Password to others who may misuse them may result in tampering of the options made by the candidate. The CEE/Government will not be responsible for any such eventuality.

- 11.5.4 **Courses and Colleges available for registering options:** A list of Courses (Course List) and Colleges (College List) for allotments through the CAP will be available in the Home page of the candidate based on the stream(s) the candidate is eligible for. The 'Course List' link when clicked will show all the courses in the stream concerned with their two letter codes. For example, a candidate included only in the Engineering stream will see the list of Engineering courses, Architecture course and their codes (Eg:- AE - Applied Electronics and Instrumentation, EC - Electronics and Communication Engineering, AR - Architecture etc.). Similarly, a candidate in the Medical Stream, will see the list of Medical & Allied courses with their two letter codes (Eg:- MM-MBBS, MD-BDS, BA-BAMS etc.). A candidate eligible for both Engineering and Medical streams will see a list of Engineering and Medical & Allied courses and their two-letter codes. The 'College List' link when clicked will show all the Colleges under the stream(s) applicable to the candidate and their three-letter codes (Eg:- TVE-College of Engineering, Thiruvananthapuram, TVM-Government Medical College, Thiruvananthapuram etc.). A candidate may examine this list further to see the number of seats for each category in these colleges by clicking on the College Code. An overall idea of the Courses and Colleges and their Codes will help the candidate to register his/her options without any difficulty.
- 11.5.5 **Procedure for registering options in his/her Option Registration Page:** By entering the option number for a course-college combination the candidate can fix his/her preference numbers for the course-college combinations displayed in the Option Registration Page. Here all the eligible options of the candidate will be displayed course-wise and the candidate is expected to enter his/her preference number for a particular combination.
- 11.5.6 **Registering of the Options and saving/revising the Options registered:**
- (i) All eligible options of the candidate will be displayed on the Option Registration Page. The candidate may follow the directions given therein to register the options. The data entered may be saved regularly by clicking the 'Save' button, so that the data already entered is not lost due to unexpected reasons. The candidate should enter only those options in which he/she is interested. Candidates should also note that he/she will be considered for allotment only to those courses and colleges opted by him/her. So, a candidate who has not opted for a course-college combination will not be considered for allotment for that combination. Existing options, registered by the candidate and available in the Option Registration Page, can be cancelled by entering the number '0' against that particular option to be cancelled and by clicking the 'Update' button. All options registered by the candidate will be processed. If a candidate gets allotted to a particular seat, based on his/her option, he/she is bound to accept it, failing which, he/she will lose that allotment as well as all the existing options in the stream to which the allotment belongs. The options once lost will not be available in the subsequent phases.
  - (ii) **Option Worksheet facility:** If a candidate experiences any difficulty in entering the data directly, he/she may first take a printout of the worksheet showing all the options he/she is eligible for, by clicking on the 'OPTION WORKSHEET' or 'DETAILED OPTION WORKSHEET' link on the page. The desired entries may be made on this work sheet and the same may be used for registering the options on the website. The preference numbers may be fixed using this worksheet and the data may be entered in the system subsequently. A candidate has the facility to modify or rearrange his/her earlier options before the last date and time fixed.
- 11.5.7 **Viewing and Printing of the Option List based on the options registered:** Once the candidate completes the option entry, he/she can view his/her options by clicking on the link provided. An option list will be generated and the candidate can take a printout of the same and keep it for

future reference. If the candidate wants to change his/her options already registered, he/she may revise the options as desired and ensure that the option list has come as per his/her preferences.

- 11.5.8 **Logging off from the Option Registration Page:** Once the candidate is satisfied with the options registered, he/she may 'Log off' the system by clicking on "logout" link. The process of 'Registration of Options' is complete when the candidate logs off. **This action is compulsory for preventing the misuse of his/her Option Registration Page by strangers.**
- 11.5.9 **Rearranging option priority:** A candidate may change his/her option priority any number of times within the time schedule permitted. The priority of options registered at the time of closing of the facility for registering options alone will be considered for processing. No candidate will be allowed to register options afresh to any stream at any stage after the stipulated time as notified by the CEE. The option list once finalized cannot be augmented after the stipulated time for registering options. But the modification of the option list will be allowed only for cancellation/deletion and for re- arrangement of priority of options at the time specified in the notification by the CEE.
- 11.5.10 **Trial Allotments:** The CEE will conduct Trial Allotment before the closure of the time fixed for registering options during the 1<sup>st</sup> Phase of allotment to give an idea about the chances of getting allotment to a course and college based on options and rank of the candidate. **The trial Allotment does not guarantee that the candidate will get allotment in a college or course.**
- 11.6 **Processing of Options and Allotment:**
- 11.6.1 **Allotment Schedule:** After the period earmarked for registering options, they will be processed and the allotment for all courses will be published on the website, "www.cee.kerala.gov.in", on the date notified by the CEE. The allotment memo, the printout of which can be taken from the website, will show the college to which the candidate is allotted and the fee to be remitted for the course allotted. The schedule of allotment will be notified separately. Necessary notifications will be issued by the CEE.
- 11.6.2 **Remittance of Fee:** The prescribed fee for the Course will have to be remitted by the candidate to the Account of the CEE in specified branches of State Bank of Travancore (SBT) to be notified by the CEE or by way of Online Payment, as per the time schedule prescribed. After the candidate remits the fee in the first allotment, a fee receipt will be issued by the bank/can be printed from the Online Payment page, as token of allotment and remittance of fee. **Those candidates who do not remit the fee on or before the date prescribed for the same will lose their allotment as well as all the existing options in the stream to which the allotment belongs. The options once lost will not be available in the subsequent phases.** The second allotment will be published on the date specified. Candidates who have not received any allotment in the first allotment and who have received an allotment in the second allotment will have to remit the prescribed fee for the course allotted. If a candidate has a different allotment than the one received in the first allotment, the fee for which is higher than that remitted as per the first allotment, he/she will have to remit the difference in fee. The amount to be remitted in this manner will be shown in the allotment memo of the candidate. If the fee for the course allotted in the second allotment is less than or same as the fee remitted as per the first allotment, no further remittance is to be made by the candidate. The same process will be repeated in the subsequent allotments.
- 11.6.3 **Admission for all courses:** Candidates allotted to courses, and who remit the fee as prescribed, should take admission in the college allotted as per the schedule prescribed by the CEE. Candidates who do not take admission will lose their allotment as well as all the existing options in the stream to which the allotment belongs. The options once lost will not be available in the subsequent phases. The candidates are liable to pay admission fee as prescribed by the University concerned at the time of admission. If a candidate who got admission in any course, in any allotment of any phase under CAP conducted by the CEE, discontinues the course by taking TC to join another college or course which is not the part of CAP or for any other reasons not related to CAP will lose their allotment as well as all the existing options in the stream to which the allotment belongs. The options once lost will not be available in the subsequent phases.
- 11.6.4 **Online Option Confirmation for participating in subsequent phases of allotment:** Candidates who are having valid options and who are willing to participate in the second allotment/subsequent allotment have to log in to his/her Option Registration Page and confirm their options by clicking the 'Confirm' button available in his/her Option Registration Page. Candidates can delete their unwanted options or alter the priority of existing options only after the online option confirmation.

Online Option Confirmation is mandatory before each phase of allotment for participating in that particular phase of allotment. The facility for Online Option Confirmation will be made available in the website before each phase of allotment. A candidate who does not confirm the higher order options by clicking the 'Confirm' button available in his/her Option Registration Page, his/her higher order options belonging to the course(s) included in that phase will not be available in subsequent phases also. However, his/her existing allotment shall be retained, subject to the conditions of Clause 11.6.2 and 11.6.3.

- (i) After each allotment, the options below the 'allotted one' of the candidate will automatically be removed from the option list of the candidate. For example, if a candidate had registered 45 options in all, and if he/she is allotted his/her 34<sup>th</sup> option, all options from 35 to 45 will be removed from the option list. Since the 34<sup>th</sup> option is the allotted one, it will not be seen in the option list. Options from 1 to 33 only will remain valid and will be considered for future allotments.
- (ii) If a candidate is satisfied with an allotment and does not want to be considered against his/her remaining options, he/she will have the facility to cancel all the remaining options. He/she may cancel options in a particular stream alone. He/she may also cancel specific options among the remaining options as per his/her desire. The candidate will also have the facility to alter the priority of the remaining options. But the candidate will not be permitted to register any fresh options to the existing ones.
- (iii) The facility for confirmation and cancellation/ deletion/alteration will be available for a specified period of time as notified, after which the facility will be withdrawn. A candidate retaining all or any of the options after each allotment is **bound to accept the next allotment, if any**, given to him/her. If the candidate fails to accept the allotment, he/she will lose all the allotments/ admission and will lose the existing options in the stream to which the latest allotment belongs.
- (iv) Forfeiture of the claims in CAP: The claims in Centralised Allotment Process conducted by the CEE will be cancelled under the following reasons.
  - (i) Non payment of tuition fee as specified in the allotment memo.
  - (ii) Non joining of the course/college within the stipulated time as specified by the CEE.
  - (iii) Discontinued with TC to join courses other than the courses allotted by the CEE or for any other reason.

11.6.5 **Further Allotments:** Details regarding further allotments will be notified by the Commissioner for Entrance Examinations.

11.6.6 **Last Rank Details:** The last rank details of the allotment will be published after each allotment and will be made available on the website. **The last rank given will be the rank of the candidate and not the position in the category list.**

11.6.7 **General Rules related to registering of Options:**

- (i) Candidate can register all the available options if he/she desires so. However, it is not compulsory that the candidates should exercise all the options.
- (ii) A candidate will not be allotted a seat in a course of a college if he/ she has not opted the course-college combination during option registration process of CAP-2017.
- (iii) A candidate is bound to accept an allotment as per the priority registered in the Option list and he/she has to surrender the seat already occupied by him/her, if he/she is allotted based on options furnished against arising/future vacancy. Request to retain the existing admission after an allotment is made, based on the option registered, will not be considered under any circumstances.
- (iv) Failure to report for admission in the allotted institution, after remitting the required fee within the stipulated time will result in the forfeiture of his/her allotment to that course and cancellation of all the existing options in the stream to which that allotment belongs.
- (v) For each phase of CAP 2017 subsequent to the initial phase, confirmation of the higher order options by logging in to the Option Registration Page and clicking the 'confirm' button is mandatory to participate in that phase of allotment even if no cancellation/re-arrangement of options is desired. Non-confirmation of higher order options for a particular phase of CAP will lead to automatic deletion of higher order options belonging to the course(s) included in that phase, making them unavailable for the subsequent phases also.

#### 11.6.8 Allotments as per guidelines:

- (i) As per the schedule fixed by the Hon'ble Supreme Court of India, no student shall be admitted to Medical/Dental colleges after August 31<sup>st</sup> of each year. Hence no allotments for 2017-18 will be made to the MBBS/BDS courses after 31.08.2017.
- (ii) As per the guidelines of Central Council of Indian Medicine, allotments to BAMS, BSMS and BUMS courses for 2017-18, will not be made after 31.10.2017. Similarly, no allotments to the BHMS course for 2017-18 will be made after 15.10.2017, as per the guidelines of Central Council of Homoeopathy.
- (iii) Allotment/ Admission to Engineering courses will not be made after 15<sup>th</sup> August of every year vide judgment of the Hon'ble Supreme Court of India dated.13.12.2012 in the Civil Appeal No.9047 and 9048 of 2012.

11.6.9 **Spot Allotment:** Spot allotment/admission for filling up the remaining vacant seats, if any, may be conducted after the completion of the Centralised allotment process. A qualified candidate included in the rank lists concerned is entitled to attend the Spot allotment/admission Process. Candidates who have obtained admission in Government Merit seats for a course shall not be eligible to participate in the Spot Allotment for that particular course. But a candidate admitted in Government Merit Seat in a Government Controlled Self Financing College is allowed to participate in Spot Admission for a Government College for any course. The eligibility/claims of candidates admitted in Private Self Financing Institutions to participate in a Spot Allotment shall be in accordance with the conditions in the relevant Government Orders/Orders of the Hon'ble Courts. The courses under Engineering stream are listed in Annexure II (1) (b). The Commissioner for Entrance Examinations is authorized to issue necessary orders regarding Spot Admission/ Allotment in due course.

#### 11.7 Post Allotment Activities:

11.7.1 **Reporting at the College:** Candidates who get allotment will have to report before the Principal/Head of the Institution concerned for admission on the dates notified with the following documents :

- (a) Admit Card of KEAM 2017 and NEET-UG 2017(if applicable).
- (b) Certificate to prove date of birth.
- (c) Transfer Certificate from the Institution last attended and Conduct Certificate.
- (d) Original mark list of the qualifying examination (Higher Secondary or equivalent) and the Pass certificate of the qualifying examination (if issued).
- (e) Eligibility certificate from any University in Kerala, in the case of candidates who have passed a qualifying examination other than Higher Secondary Examination/Vocational Higher Secondary Examination conducted by Government of Kerala or the examination conducted by CBSE and CISCE.
- (f) Migration Certificate, if applicable.
- (g) Physical Fitness Certificate in the relevant format given in Annexure XVII (a) or XVII (b) of the Prospectus 2017.
- (h) Receipt of fee remitted.
- (i) Data sheet of KEAM 2017.
- (j) Allotment Memo issued by the CEE.
- (k) Any other documents required by the Head of Institution.

The 'fee' as prescribed by the University concerned to the course will have to be remitted by the candidate at the time of taking admission in the college.

<p>The candidate is specifically instructed not to inform his/her Key Number and Password to the institutions concerned.</p>
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11.7.2 **Verification of Documents:** The Principal/Head of the College or Institution shall be personally responsible for verification and satisfaction of the correctness of the records produced by the candidate at the time of seeking admission in the college/institution. The University concerned shall also verify the records produced by the candidate who got admission in the college/institution by deputing special teams and submit a report to Government within 10 days from the last date fixed for final allotment of seats.

11.7.3 **Failure to pay the tuition fee/report for Admission:** Candidates who do not pay the tuition fee or do not take admission on the prescribed date will lose their allotment as well as all the existing options in the stream to which that allotment belongs.

- 11.7.4 **Cancellation of Higher Options after joining a College:** Candidates who join the college on the dates specified can cancel their remaining options fully or partially or change the priority of their remaining options before the dates prescribed and as specified in clause 11.6.4. A candidate interested in subsequent allotment must login to his/her Option Registration Page and click the 'confirm' button available therein and can delete their unwanted options or alter the priority of existing options.
- 11.8 **Seat allotment protocol in Government/Aided/KAU/KVASU/KUFOS Colleges:**
- 11.8.1 **Admission & Allotment:** A distinction will be made between 'Admission' to a course and seat 'Allotment' to a college. Admissions are offered through allotment of seats under CAP. Allotments will be first offered under State Merit (SM) even to candidates having eligible reservation benefits as per mandatory reservation so long as vacancies are available under the same, statewide. Only after all the 'State Merit' vacancies are exhausted across the State, seats will be offered under the candidate's eligible reservation quotas under mandatory reservation. (Refer Clause 5)
- 11.8.2 **State-wide Principle of Allotment in Government/Aided/KAU/KVASU/KUFOS Colleges:**  
Allotment of seats in Government/Aided/KAU/KVASU/KUFOS Colleges is governed by a 'state-wide' principle of selection approved by the Government of Kerala in G.O.(MS) No.122/98/H.Edn. dated 07.10.1998. According to the G.O., 'Candidates of the reserved category who will otherwise come in the open merit list will be allotted to the college of his choice provided he would have been eligible for allotment to that college if he was treated as candidate coming under reservation quota. While a reserved category candidate entitled to admission on the basis of his merit will have the option of taking admission to the colleges where a specified number of seats have been kept reserved for reserved category but while computing the percentage of reservation he will be deemed to have been admitted as an open category candidate and not as a reserved category candidate'. As per the above principle, all seats available for allotment by CEE in Government/Aided/KAU/KVASU/KUFOS Colleges for a particular course (Eg:- BAMS under Medical stream or Electronics & Communication under Engineering stream) available in all the Government and Aided colleges put together will be computed state-wide and the total seats so obtained for each course in these Colleges together, will be distributed statewide for the different categories by applying the mandatory reservation principle as mentioned in Clause 4.1.5. While following the above principle of allotment, the institution-wise break-up of seats that is earmarked under each category as per the mandatory reservation principle will be changed in certain colleges.
- 11.8.3 **Allotment in Government/Aided/KAU/KVASU/KUFOS Colleges to Candidates with multiple Claims under Mandatory Quota:** All candidates included in the Rank Lists are eligible for allotment under State Merit (SM). Candidates might be entitled for other reservation quotas also under Mandatory Reservation. For example, a candidate may have the benefit of SEBC reservation (EZ/MU/BH/ LA/DV/VK/KN/BX/KU) or Scheduled Caste (SC) or Scheduled Tribe (ST) claim. The seats will be offered on the hierarchy of quotas.  
The hierarchy in order is as follows:  
(i) State Merit (SM) - All candidates included in the Rank Lists are eligible for allotment under State Merit.  
(ii) A candidate without SEBC/SC/ST reservation benefit will be considered only against the 'State Merit' seats wherever available at the time of allotment. Such candidates will be allotted a seat as per the availability of seats.
- 11.8.4 **Allotments under Special Reservations:** Candidates may be eligible for Special Reservations and/or reservation benefits under 'Persons with Disabilities'. Such allotment will be only to the colleges where the seats have been identified. Allotment under these categories will not be governed by the provisions of the GO referred to in clause 11.8.2. The allotment of seats under Special reservation will be taken up along with the General Allotment. However such candidates will also be considered for allotments as per the Clauses 11.8.2 and 11.8.3, if they are eligible for SEBC/SC/ST reservation benefits.
- 11.9 **Seat allotment protocol in Self-financing Colleges:** Allotment of seats in Self-financing colleges will be college/institution wise. Details will be notified separately.
- 11.10 In case, candidates are directed to appear for a personal counseling at any stage of allotment process and a candidate is not able to attend the allotment process on genuine grounds, the parent/guardian or any authorized person can act as a proxy at the risk of the candidate, on production of authorization letter in the form given in Annexure XIX. Authorization letter once received will be considered valid for the entire allotment process, unless the candidate revokes it in writing.

## 12. FEES

- 12.1 Fees for the various courses in Govt./Aided Colleges will be as fixed by the Government, from time to time. Fees for the various courses in Self-financing Institutions will be notified separately. The details of fee structure for various courses will be published before the commencement of the CAP 2017. The list of Private Self Financing Institutions which offer additional fee concessions will be published in the official website of the Commissioner for Entrance Examinations, [www.cee.kerala.gov.in](http://www.cee.kerala.gov.in) before the commencement of CAP 2017.
- 12.1.1 Candidates belonging to SC/ST communities allotted against merit seats or against the seats reserved for them are exempted from payment of fees. Candidates belonging to OEC admitted against merit seats or against the un-availed seats of SC/ST are exempted from payment of fee (G.O.(MS) No.14/2005/SCSTDD dated 5.4.2005 & G.O.(Ms) No.36/07/SCSTDD dated 03.07.2007). Candidates belonging to OEC admitted to Government seats through SEBC reservation are also exempted from payment of fee (G.O.(Ms) No. 50/2006/SCSTDD dated 22.09.2006).
- (a) **Claim for fee concession to OEC candidates:** Candidates belonging to Other Eligible Communities are exempted from payment of fee at the time of allotment to professional Degree Courses under Government/Community quota as per G.O. (MS) No. 36/07/SCSTDD dated 03.07.2007. Those OEC candidates who have submitted the Non-Creamy Layer Certificate for availing the applicable reservation will be granted the fee concession based on the Non-Creamy Layer Certificate. But those OEC candidates who do not come under Non-Creamy Layer Category should submit the Community Certificate obtained from the village officer along with the printout of the application for availing the fee concession.
- (b) **Claim for fee concession to the candidates belonging to communities listed in Annexure X (a):** Candidates belonging to the communities listed in Annexure X (a) whose annual family income is up to Rs.6 lakhs are exempted from payment of fee at the time of allotment to Professional Degree Courses under Government/Community Quota as per GO (MS) No. 10/2014/BCDD dated: 23.05.2014. They should provide Community and Income Certificates from the Village Officer in the prescribed format along with the printout of the application.
- 12.1.2 Candidates who are children of Inter-Caste married couple of which one is SC/ST, will be eligible for educational and monetary benefits admissible to SC/ST as per GO (MS) No.25/2005/SCSTDD dated 20.6.2005 if they have submitted the 'Inter-Caste Marriage Certificate' issued by Tahasildar along with the printout of the application and the claim is accepted.
- 12.2 **Payment of Fees:**
- 12.2.1 The fee for a course allotted to the candidate will have to be paid within the stipulated time by way of Online Payment or through payment at specified branches of State Bank of Travancore (SBT). If a candidate moves to another course in the same stream, the fee for which is higher than the fees applicable for the course allotted earlier, the balance fee will have to be remitted. Candidates getting fresh allotment also will have to remit the fees applicable. The fee so collected from the candidates will be transferred to the college where the candidate stands admitted at the closing of admissions for the year.
- 12.2.2 **Refund of fees:** Candidates who cancel their admission by obtaining Transfer Certificate before the dates announced by the CEE for the same are eligible for refund of fees. Excess fees if any collected from candidates will be refunded. The amount of fee/excess fee collected will be refunded to the candidates only after the closing of admission for the year. No interest will be paid to the candidates.
- 12.2.3 **No refund of fees:**
- (i) No refund of fees will be made to candidates who apply for Transfer Certificate/ Cancellation of admission under any circumstances, after the last allotment notified by the CEE. They will have to pay Liquidated damages as stipulated in Clause 12.2.4.
- (ii) The candidate who does not take admission in the last phase of allotment in the respective courses will not be eligible for refund of fees. They will have to pay Liquidated damages as stipulated in Clause 12.2.4.
- 12.2.4 **Liquidated damages**
- (a) **Levying amount towards liquidated damages from candidates discontinuing their studies:**
- (i) If any candidate admitted against 'Government' seats in courses other than MBBS/BDS in Government/ Aided/ Government Controlled Self-financing/Private Self-financing/KAU/KVASU/KUFOS Colleges, discontinues the studies after the closing of admissions in the same academic year, to join other Courses /Colleges or for other purposes, he/she is liable to pay liquidated damages of Rs.75,000/- (Rupees seventy five thousand only). The liquidated damages for those candidates discontinuing courses in Government

Engineering Colleges will be Rs.50,000/- (Rupees fifty thousand only). In all such cases the Transfer Certificate will be issued only after remitting the liquidated damages to the admitting authority concerned. Candidates belonging to SC/ST/OEC are exempted from this rule. Candidates belonging to 'Keralite' category, as per Clause 6.1 (i), whose annual family income is below Rs.75,000/- and who have submitted Income Certificate along with the printout of the application for admission to Professional Degree Courses 2017 will also be exempted from payment of Liquidated damages. Candidates who are transferred from one institution to another as per proceedings of the University concerned are exempted from payment of liquidated damages. The students admitted in Government/Management seats in Professional Colleges who discontinue their studies to join at any stage of the Course in National Defence Academy / Naval Academy/ Defence Institutions are exempted from the payment of Liquidated damages.

In the case of Private Self financing Engineering Colleges, the date of closing of admission and levying of liquidated damages from the candidates discontinuing studies will be notified separately.

- (ii) The candidates admitted against Management seats in courses other than MBBS/BDS in Self financing colleges under Govt. control, on discontinuance of course after the closing of admissions in the same academic year, are liable to pay liquidated damages of Rs.75,000/-, irrespective of annual family income/nativity/ reservation status.
  - (iii) If any candidate admitted against Government Seats in the Government/Government Controlled/Private Self financing Medical & Dental Colleges and management seats in Government controlled self financing colleges allotted by the CEE for MBBS/BDS courses discontinues after the closing of admission in the same academic year, to join other Courses/Colleges or for other purposes, he/she is liable to pay liquidated damages of Rs.10,00,000/- (Rupees Ten Lakhs only) in the case of MBBS course and Rs. 5,00,000/- (Rupees five lakh only) in the case of BDS course, irrespective of annual family income/nativity/ reservation status and also liable to be debarred from appearing the Entrance Examinations and/or allotments conducted by the CEE for a period not exceeding two years. In case of failure to remit the penalty, the same is liable to be recovered under the Revenue Recovery Act.
- (b) **On discontinuance of a course after the first academic year liquidated damages shall be collected in the following manner:**
- (i) For Government seats in Government/Aided/KAU/KVASU/KUFOS Colleges, liquidated damages shall be levied as in Clause 12.2.4 (a) (i) & (iii) above or fees for remaining years, whichever is higher, irrespective of annual family income/nativity/ reservation status.
  - (ii) For Government seats in Private Self-financing/Government controlled self-financing colleges, liquidated damages shall be levied either as in Clause 12.2.4 (a) (i)& (iii) above or fees for remaining years, whichever is higher, irrespective of annual family income/nativity/ reservation status.
  - (iii) For Management seats in Government controlled Self-financing colleges, fee for the remaining years of study will be levied as liquidated damages, irrespective of annual family income/nativity/reservation status.
- (c) **Penalty for Filing/Retaining unnecessary options:** Candidates who file/retain unnecessary options, but do not take admission on allotment to the Course/College during the final phase of allotment to a course as notified by the CEE resulting in Government seats and Management seats allotted by the CEE to lapse, will be penalized. They will be liable to pay penalty of Rs.10,00,000/- (Rupees Ten Lakhs Only) for MBBS course, Rs. 5,00,000/- (Rupees five lakh only) for BDS course and Rs.50,000/- (Rupees Fifty Thousand Only) for all other courses irrespective of annual family income/nativity/reservation status. Their candidature is also liable to be cancelled and also will be debarred from appearing the Entrance Examinations and/or allotments conducted by the CEE for a period not exceeding two years. In case of failure to remit the penalty, the same is liable to be recovered under the Revenue Recovery Act.
- 12.2.5 **Refund of Excess amount collected as fee:** The fees collected from candidates will be transferred to the college where the candidate stands admitted on closing of admissions. In case the candidate has moved to a course, the fee for which is lesser than the amount remitted by him/her at the time of the earlier allotment, the excess fee collected will be refunded to the candidate after closing of admissions. The candidates need not submit any



individual request in this regard. No interest will be paid to the candidate on the balance amount due to him/her.

**13. COURSES, INSTITUTIONS - SPECIAL FEATURES**

**13.1 Medical Courses under the DME:**

- (a) The selected candidate should report before the Principal concerned on the date and time as directed by the CEE. No extension of time for joining the course will be granted under any circumstances. Failure to appear before the Principal concerned for admission on the date and time fixed will forfeit his/her selection to the course.
- (b) All students getting selected should get themselves vaccinated against Hepatitis, MMR and Chicken pox, before admission. A certificate to this effect will have to be produced at the time of admission.
- (c) Students who successfully complete the MBBS course from Medical Colleges in the State, on completion of the MBBS Course, are liable to serve in rural areas. The provisions relating to this stipulation will be as given in appropriate Government orders issued from time to time.

**13.2 Ayurvedacharya - BAMS, Siddha- BSMS and Unani- BUMS Courses:**

- (a) Degree will be awarded only on production of certificate of having successfully completed the prescribed one year internship.
- (b) Medium of instruction will be English.

**13.3 Homoeopathy - BHMS Course:**

The degree will be awarded only after successful completion of one year internship as prescribed by the Central Council of Homoeopathy.

**13.4 Other conditions for the courses under the Kerala Agricultural University/Kerala Veterinary & Animal Sciences University/Kerala University of Fisheries & Ocean Studies:**

- (a) **Discontinuance and attendance:** The students will not be allowed to discontinue the course of studies temporarily during the first two semesters. If a student admitted to the first year Under Graduate course does not register for the courses of first semester of that year or having registered, secures less than 80% attendance in 3 or more courses, his/her name shall be removed from the roll.
- (b) The medium of instruction for the above Degree courses will be English.
- (c) All the above courses involve practical fieldwork requiring considerable physical exertion. The candidates who would not be able to do such physical work need not apply.
- (d) The following minimum physical standards are prescribed for BSc. (Hons.) Forestry course.

Gender	Height (cm)	Chest girth (cm)	
		Normal	Expanded
Male	163	79	84
Female	150	74	79

- (e) Candidates selected and sponsored by ICAR and children of persons of Kerala origin settled in Andaman Nicobar Island and Lakshadweep need not produce the nativity certificate for admission to the respective seats reserved for them.
- (f) In the case of in-service candidates, as mentioned in Clause 5, certificate showing the period of service from the head of office in which they are working should be produced.
- (g) Certificates regarding the physical standards/fitness prescribed may be obtained from a Medical Officer in service not below the rank of an Assistant Surgeon in the concerned specimen form as given in Annexure XVII (a)/XVII (b) as applicable.
- (h) The physical standards in respect of candidates who have been allotted to BSc.(Hons.) Forestry course will be finally checked by the Kerala Agricultural University before admitting them to the above course.

**13.5 Transfer to other institutions:** Transfer of candidates who are admitted to courses under Kerala University of Health Sciences to other institutions within the University during the course of study and internship will be in accordance with the regulations of Kerala University of Health Sciences.

**13.6 Engineering/Architecture Courses:**

Those candidates who have been allotted to various Engineering/ Architecture courses in the State should produce a Physical Fitness Certificate in the Proforma given in Annexure XVII (b) at the time of admission.

Candidates allotted to Engineering/ Architecture Courses will have to get vaccinated against Hepatitis-B, before they take admission in the allotted college, as per AICTE guidelines.

**Note:** Tuition Fee Waiver Scheme will be implemented as per the norms fixed by the AICTE. The implementation of the scheme for Engineering course will be subject to the orders issued by Government of Kerala from time to time.

**14. OTHER ITEMS**

- 14.1 The Commissioner for Entrance Examinations will not entertain any request for change of the date of Entrance Examinations or Centralised Allotment Process or enquiries with regard to the date of declaration of the results.
- 14.2 All disputes pertaining to the examination, selection or admission shall fall within the jurisdiction of the Hon'ble High Court of Kerala.
- 14.3 Any other items not specifically covered in this prospectus will be decided by the CEE and his decision shall be final.
- 14.4 **Preventive measures against ragging:**

According to the Kerala Prohibition of Ragging Act, 1998, 'ragging' means doing of any act by disorderly conduct to a student of an educational institution, which causes or is likely to cause physical or psychological harm or raising apprehension or shame or embarrassment to that student and includes teasing or abusing or playing practical jokes or causing hurt to such students or asking a student to do any act or to perform something which such student will not in the ordinary course be willing to do.

All Institutions will have to abide by the directives of the Honourable Supreme Court of India, Dated May 16, 2007 in SLP No.(s) 24295 of 2006 University of Kerala Vs Council, Principals', Colleges, Kerala & Ors [with SLP (C) No.24296-99/2004 & W.P.(Cri) No.173/2006 & SLP (C) No.14356/2005] and the recommendations approved by the Honourable Supreme Court of India on effective prevention of ragging in educational institutions.

In case, the applicant for admission is found to have indulged in ragging in the past or if it is noticed later that he/she has indulged in ragging, admission may be refused or he/she shall be expelled from the educational institution.

It shall be the collective responsibility of the authority of the institution to see to it that effective steps for preventing ragging are taken. Anti-ragging committees and anti-ragging squads will have to be formed to take effective measures against ragging and they should adhere to the stipulations and effectively monitor and comply with the directives.

Each of the students of the institution and his/her parents, or guardian are required to submit a combined undertaking at the time of registration/admission in prescribed format available in Annexure - XXII which is mandatory for registration/admission.

Thiruvananthapuram  
Date:30.01.2017

(Sd/-)  
Commissioner for Entrance Examinations

**ANNEXURE - I**  
**SYLLABUS FOR THE ENTRANCE EXAMINATIONS, 2017**

(See Clause 9.5.1)

## **MATHEMATICS**

### UNIT I: ALGEBRA

#### **SETS, RELATIONS AND FUNCTIONS**

Sets and their Representations: Finite and Infinite sets; Empty set; Equal sets; Subsets; Power set; Universal set; Venn Diagrams; Complement of a set; Operations on Sets (Union, Intersection and Difference of Set); Applications of sets: Ordered Pairs, Cartesian Product of Two sets; Relations: Domain, Co-domain and Range; Functions: into, on to, one - one in to, one-one on to Functions; Constant Function; Identity Function; composition of Functions; Invertible Functions; Binary Operations.

#### **Complex Numbers**

Complex Numbers in the form  $a + ib$ ; Real and Imaginary Parts of a complex Number; Complex Conjugate, Argand Diagram, Representation of Complex Number as a point in the plane; Modulus and Argument of a Complex Number; Algebra of Complex Numbers; Triangle Inequality;  $|Z_1 + Z_2| \leq |Z_1| + |Z_2|$ ;  $|Z_1 \cdot Z_2| = |Z_1| |Z_2|$ ; Polar Representation of a Complex Number.

#### **Quadratic Equations**

Solution of a Quadratic Equation in the Complex Number System by (i) Factorization (ii) Using Formula; Relation between Roots and Coefficients; Nature of Roots; Formation of Quadratic Equations with given Roots; Equations Reducible to Quadratic Forms.

#### **Sequences and Series**

Sequence and Examples of Finite and Infinite Sequences; Arithmetic Progression (A..P): First Term, Common Difference,  $n^{\text{th}}$  Term and sum of  $n$  terms of an A.P.; Arithmetic Mean (A.M); Insertion of Arithmetic Means between any Two given Numbers; Geometric Progression (G.P): first Term, Common Ratio and  $n^{\text{th}}$  term, Sum to  $n$  Terms, Geometric Mean (G.M); Insertion of Geometric Means between any two given Numbers.

#### **Permutations, Combinations, Binomial Theorem and Mathematical Induction**

Fundamental Principle of Counting; The Factorial Notation; Permutation as an Arrangement; Meaning of  $P(n, r)$ ; Combination: Meaning of  $C(n, r)$ ; Applications of Permutations and Combinations. Statement of Binomial Theorem; Proof of Binomial Theorem for positive integral Exponent using Principle of Mathematical Induction and also by combinatorial Method; General and Middle Terms in Binomial Expansions; Properties of Binomial Coefficients; Binomial Theorem for any Index (without proof); Application of Binomial Theorem. The Principle of Mathematical Induction, simple Applications.

#### **Matrices and Determinants**

Concept of a Matrix; Types of Matrices; Equality of Matrices (only real entries may be considered); Operations of Addition, Scalar Multiplication and Multiplication of Matrices; Statement of Important Results on operations of Matrices and their Verifications by Numerical Problem only; Determinant of a Square Matrix; Minors and Cofactors; singular and non-singular Matrices; Applications of Determinants in (i) finding the Area of a Triangle (ii) solving a system of Linear Equations (Cramer's Rule); Transpose, Adjoint and Inverse of a Matrix; Consistency and Inconsistency of a system of Linear Equations; Solving

System of Linear Equations in Two or Three variables using Inverse of a Matrix (only up to  $3 \times 3$  Determinants and Matrices should be considered).

#### **Linear Inequations**

Solutions of Linear Inequation in one variable and its Graphical Representation; solution of system of Linear Inequations in one variable; Graphical solutions of Linear inequations in two variables; solutions of system of Linear Inequations in two variables.

#### **Mathematical Logic and Boolean Algebra**

Statements; use of Venn Diagram in Logic; Negation Operation; Basic Logical Connectives and Compound Statements including their Negations.

## UNIT II : TRIGONOMETRY

### Trigonometric functions and Inverse Trigonometric functions

Degree measures and Radian measure of positive and negative angles; relation between degree measure and radian measure, definition of trigonometric functions with the help of a unit circle, periodic functions, concept of periodicity of trigonometric functions, value of trigonometric functions of  $x$  for  $x = 0, \pi/6, \pi/4, \pi/3, \pi/2, \pi, 3\pi/2, 2\pi$ ; trigonometric functions of sum and difference of numbers.

$$\sin(x \pm y) = \sin x \cos y \pm \cos x \sin y ; \cos(x \pm y) = \cos x \cos y \mp \sin x \sin y ; \tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y} ;$$

$$\sin(2\pi \pm x) = \pm \sin x , \cos(2\pi \pm x) = \cos x ; \cos(-x) = \cos x , \sin(-x) = -\sin x ; \cos\left(\frac{\pi}{2} \pm x\right) = \pm \sin x$$

$$\sin\left(\frac{\pi}{2} \pm x\right) = \cos x ; \cos(\pi \pm x) = -\cos x , \sin(\pi \pm x) = \pm \sin x$$

Trigonometric functions of multiple and submultiples of numbers.

$$\sin 2x = 2 \sin x \cos x ;$$

$$\sin 3x = 3 \sin x - 4 \sin^3 x ; \cos 2x = \cos^2 x - \sin^2 x = 1 - 2 \sin^2 x = 2 \cos^2 x - 1 ; \cos 3x = 4 \cos^3 x - 3 \cos x$$

$$\tan 3x = \frac{3 \tan x - \tan^3 x}{1 - 3 \tan^2 x} ; \sin x + \sin y = 2 \sin\left(\frac{x+y}{2}\right) \cos\left(\frac{x-y}{2}\right) ; \cos x + \cos y = 2 \cos\left(\frac{x+y}{2}\right) \cos\left(\frac{x-y}{2}\right)$$

$$\sin x - \sin y = 2 \cos\left(\frac{x+y}{2}\right) \sin\left(\frac{x-y}{2}\right) ; \cos x - \cos y = -2 \sin\left(\frac{x+y}{2}\right) \sin\left(\frac{x-y}{2}\right)$$

Conditional identities for the angles of a triangle, solution of trigonometric equations of the type  $\sin x = \sin a$  ;  $\cos x = \cos a$  ;  $\tan x = \tan a$  and equations reducible to these forms.

Inverse Trigonometric functions:

$$(i) \sin^{-1}(\sin x) = x \text{ and other similar formula } (ii) \sin^{-1}\left(\frac{1}{x}\right) = \operatorname{cosec}^{-1} x \text{ and other similar formula.}$$

$$\sin^{-1}(-x) = -\sin^{-1} x , \tan^{-1}(-x) = -\tan^{-1} x ; \operatorname{cosec}^{-1}(-x) = -\operatorname{cosec}^{-1} x , \cos^{-1}(-x) = \pi - \cos^{-1}(x) ;$$

$$\sec^{-1}(-x) = \pi - \sec^{-1}(x) , \cot^{-1}(-x) = \pi - \cot^{-1}(x)$$

$$\sin^{-1} x + \cos^{-1} x = \pi/2 , \tan^{-1} x + \cot^{-1} x = \pi/2 ; \operatorname{cosec}^{-1}(x) + \sec^{-1}(x) = \pi/2 ; \tan^{-1} x - \tan^{-1} y = \tan^{-1}\left(\frac{x-y}{1+xy}\right), xy > -1$$

$$\tan^{-1} x + \tan^{-1} y = \tan^{-1}\left(\frac{x+y}{1-xy}\right); xy < 1 ; 2 \tan^{-1} x = \sin^{-1}\left(\frac{2x}{1+x^2}\right) = \cos^{-1}\left(\frac{1-x^2}{1+x^2}\right) = \tan^{-1}\left(\frac{2x}{1-x^2}\right), |x| < 1$$

Simple problems

Graph of the following trigonometric functions;

$$y = \sin x ; y = \cos x ; y = \tan x ; y = a \sin x ; y = a \cos x , y = a \sin bx ; y = a \cos bx ;$$

## UNIT III: GEOMETRY

### Cartesian System of Rectangular Co ordinates

Cartesian system of co ordinates in a plane, Distance formula, Centroid and incentre, Area of a triangle, condition for the collinearity of three points in a plane, Slope of line, parallel and perpendicular lines, intercepts of a line on the co ordinate axes, Locus and its equation.

### Lines and Family of lines

Various forms of equations of a line parallel to axes, slope-intercept form, The Slope point form, Intercept form, Normal form, General form, Intersection of lines. Equation of bisectors of angle between two lines, Angles between two lines, condition for concurrency of three lines, Distance of a point from a line, Equations of family of lines through the intersection of two lines.

### Circles and Family of circles

Standard form of the equation of a circle General form of the equation of a circle, its radius and center, Equation of the circle in the parametric form.

### Conic sections

Sections of a cone. Equations of conic sections [Parabola, Ellipse and Hyperbola] in standard form.

## Vectors

Vectors and scalars, Magnitude and Direction of a vector, Types of vectors (Equal vectors, unit vector, Zero vector). Position vector of a point, Localized and free vectors, parallel and collinear vectors, Negative of a vector, components of a vector, Addition of vectors, multiplication of a vector by a scalar, position vector of point dividing a line segment in a given ratio, Application of vectors in geometry. Scalar product of two vectors, projection of a vector on a line, vector product of two vectors.

## Three Dimensional Geometry

Coordinate axes and coordinate planes in three dimensional space, coordinate of a point in space, distance between two points, section formula, direction cosines, and direction ratios of a line joining two points, projection of the join of two points on a given line, Angle between two lines whose direction ratios are given, Cartesian and vector equation of a line through (i) a point and parallel to a given vector (ii) through two points, Collinearity of three points, coplanar and skew lines, Shortest distance between two lines, Condition for the intersection of two lines, Cartesian and vector equation of a plane (i) When the normal vector and the distance of the plane from the origin is given (ii) passing through a point and perpendicular to a given vector (iii) Passing through a point and parallel to two given lines through the intersection of two other planes (iv) containing two lines (v) passing through three points, Angle between (i) two lines (ii) two planes (iii) a line and a plane, Condition of coplanarity of two lines in vector and Cartesian form, length of perpendicular of a point from a plane by both vector and Cartesian methods.

## UNIT IV: STATISTICS

### Statistics and probability

Mean deviation for ungrouped data, variance for grouped and ungrouped data, standard deviation. Random experiments and sample space, Events as subset of a sample space, occurrence of an event, sure and impossible events, Exhaustive events, Algebra of events, Meaning of equality likely outcomes, mutually exclusive events. Probability of an event; Theorems on probability; Addition rule, Multiplication rule, Independent experiments and events. Finding  $P(A \text{ or } B)$ ,  $P(A \text{ and } B)$ , random variables, Probability distribution of a random variable.

## UNIT V : CALCULUS

### Functions, Limits and continuity

Concept of a real function; its domain and range; Modulus Function, Greatest integer function: Signum functions; Trigonometric functions and inverse trigonometric functions and their graphs; composite functions, Inverse of a function.

Limit of a function; meaning and related notations; Left and right hand limits; Fundamental theorems

on limits without proof  $\lim_{x \rightarrow a} \frac{x^n - a^n}{x - a} = na^{n-1}, a > 0; \lim_{x \rightarrow 0} \frac{\sin x}{x} = 1; \lim_{x \rightarrow 0} \frac{e^x - 1}{x} = 1$  (without proof);

$\lim_{x \rightarrow 0} \frac{\log(1+x)}{x} = 1$  Limits at Infinity and infinity limits; continuity of a function at a point, over an open/ closed interval; Sum, Product and quotient of continuous functions; Continuity of special functions- Polynomial, Trigonometric, exponential, Logarithmic and Inverse trigonometric functions.

### Differentiation

Derivative of a function; its geometrical and physical significance; Relationship between continuity and differentiability; Derivatives of polynomial, basic trigonometric, exponential, logarithmic and inverse trigonometric functions from first principles; derivatives of sum, difference, product and quotient of functions; derivatives of polynomial, trigonometric, exponential, logarithmic, inverse trigonometric and implicit functions; Logarithmic differentiation; derivatives of functions expressed in parametric form; chain rule and differentiation by substitution; Derivatives of Second order.

### Application of Derivatives

Rate of change of quantities; Tangents and Normals; increasing and decreasing functions and sign of the derivatives; maxima and minima; Greatest and least values; Rolle's theorem and Mean value theorem; Approximation by differentials.

## Indefinite Integrals

Integration as inverse of differentiation; properties of integrals; Integrals involving algebraic, trigonometric, exponential and logarithmic functions; Integration by substitution; Integration by parts; Integrals of the type:

$$\int \frac{dx}{x^2 \pm a^2}, \int \frac{dx}{a^2 - x^2}, \int \frac{dx}{\sqrt{x^2 \pm a^2}}, \int \frac{dx}{\sqrt{a^2 - x^2}}, \int \frac{dx}{ax^2 + bx + c},$$
$$\int \frac{px + q}{ax^2 + bx + c} dx, \int \frac{dx}{\sqrt{ax^2 + bx + c}}, \int \frac{px + q}{\sqrt{ax^2 + bx + c}} dx.$$

Integration of rational functions; Partial fractions and their use in integration; Integrals of the type

$$\int \sqrt{x^2 \pm a^2} dx, \int \sqrt{a^2 - x^2} dx, \int \sqrt{(ax^2 + bx + c)} dx, \int (px + q)\sqrt{(ax^2 + bx + c)} dx,$$
$$\int \frac{dx}{a + b \cos x}, \int \frac{dx}{a - b \sin x}, \int \sin^{-1} x dx, \int \log x dx.$$

## Definite Integrals

Definite integral as limit of a sum; Fundamental theorems of integral calculus without proof); Evaluation of definite integrals by substitution and by using the following properties.

$$\int_a^b f(x) dx = - \int_b^a f(x) dx ; \int_a^b f(x) dx = \int_a^c f(x) dx + \int_c^b f(x) dx$$

$$\int_a^b f(x) dx = \int_a^b f(a + b - x) dx ; \int_0^a f(x) dx = \int_0^a f(a - x) dx$$

$$\int_a^b f(x) dx = \int_a^b f(a + b - x) dx ; \int_0^a f(x) dx = \int_0^a f(a - x) dx$$

$$\int_a^b f(x) dx = \int_a^b f(a + b - x) dx ; \int_0^a f(x) dx = \int_0^a f(a - x) dx$$

$$\int_0^{2a} f(x) dx = \int_0^a f(x) dx + \int_0^a f(2a - x) dx ; = \int_0^{2a} f(x) dx = 2 \int_0^a f(x) dx, \text{ if } f(2a - x) = f(x)$$

$$\int_0^{2a} f(x) dx = 0, \text{ if } f(2a - x) = -f(x)$$

$$\int_{-a}^a f(x) dx = \begin{cases} 2 \int_0^a f(x) dx, & \text{if } f(x) \text{ is even} \\ 0 & \text{if } f(x) \text{ is odd} \end{cases}$$

Application of definite integrals in finding areas bounded by a curve, circle, parabola and ellipse in standard form between two ordinates and x-axis; Area between two curves, line and circle; line and parabola: line and ellipse.

## Differential Equations

Definition; order and degree; general and particular solutions of a differential equation; formation of differential equations whose general solution is given; solution of differential equations by method of Separation of variables; Homogeneous differential equations of first order and their solutions; Solution of linear differential equations of the type  $\frac{dy}{dx} + P(x)y = Q(x)$  where  $P(x)$ ,  $Q(x)$  are functions of  $x$ .

# PHYSICS

## UNIT 1: INTRODUCTION AND MEASUREMENT

Physics - Scope and excitement; Physics in relation to science, society and technology - inventions, names of scientists and their fields, nobel prize winners and topics, current developments in physical sciences and related technology. Units for measurement - systems of units, S.I units, conversion from other systems to S.I units. Fundamental and derived units. Measurement of length, mass and time, least count in measuring instruments (eg. vernier calipers, screw gauge etc), Dimensional analysis and applications, order of magnitude, accuracy and errors in measurement, random and instrumental errors, significant figures and rounding off principles.

## UNIT 2 : DESCRIPTION OF MOTION IN ONE DIMENSION

Objects in motion in one dimension - Motion in a straight line, uniform motion - its graphical representation and formulae; speed and velocity - instantaneous velocity; ideas of relative velocity with expressions and graphical representations; Uniformly accelerated motion, position - time graph, velocity - time graph and formulae. Elementary ideas of calculus - differentiation and integration - applications to motion.

## UNIT 3 : DESCRIPTION OF MOTION IN TWO AND THREE DIMENSIONS

Vectors and scalars, vectors in two and three dimensions, unit vector, addition and multiplication, resolution of vector in a plane, rectangular components, scalar and vector products. Motion in two dimensions - projectile motion, ideas of uniform circular motion, linear and angular velocity, relation between centripetal acceleration and angular speed.

## UNIT 4 : LAWS OF MOTION

Force and inertia, first law of motion, momentum, second law of motion, forces in nature, impulse, third law of motion, conservation of linear momentum, examples of variable mass situation, rocket propulsion, equilibrium of concurrent forces.

Static and kinetic friction, laws of friction, rolling friction, lubrication. Inertial and non-inertial frames (elementary ideas); Dynamics of uniform circular motion - centripetal and centrifugal forces, examples : banking of curves and centrifuge.

## UNIT 5 : WORK, ENERGY AND POWER

Work done by a constant force and by a variable force, units of work - Energy - kinetic and potential forms, power, work-energy theorem. Elastic and inelastic collisions in one and two dimensions. Gravitational potential energy and its conversion to kinetic energy, spring constant, potential energy of a spring, Different forms of energy, mass - energy equivalence (elementary ideas), conservation of energy, conservative and non-conservative forces.

## UNIT 6: MOTION OF SYSTEM OF PARTICLES AND RIGID BODY ROTATION

Centre of mass of a two particle system, generalisation to N particles, momentum conservation and center of mass motion, applications to some familiar systems, center of mass of rigid body. Moment of a force, torque, angular momentum, physical meaning of angular momentum, conservation of angular momentum with some examples, eg. planetary motion. Equilibrium of rigid bodies, rigid body rotation and equation of rotational motion, comparison of linear and rotational motions, moment of inertia and its physical significance, radius of gyration, parallel and perpendicular axes theorems (statements only), moment of inertia of circular ring and disc, cylinder rolling without slipping.

## UNIT 7 : GRAVITATION

Universal law of gravitation, gravitational constant (G) and acceleration due to gravity (g), weight and gravitation, variation of g with altitude, latitude, depth and rotation of earth. Mass of earth, gravitational potential energy near the surface of the earth, gravitational potential, escape velocity, orbital velocity of satellite, weightlessness, motion of geostationary and polar satellites, statement of Kepler's laws of planetary motion, proof of second and third laws, relation between inertial and gravitational masses.

## UNIT 8 : MECHANICS OF SOLIDS AND FLUIDS

**Solids** : Hooke's law, stress - strain relationships, Young's modulus, bulk modulus, shear modulus of rigidity, some practical examples. **Fluids** : Pressure due to fluid column, Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure, Buoyancy, laws of floatation and Archimedes principles, atmospheric pressure. Surface energy and surface tension, angle

of contact, examples of drops and bubbles, capillary rise, detergents and surface tension, viscosity, sphere falling through a liquid column, Stokes law, streamline flow, Reynold's number, equation of continuity, Bernoulli's theorem and applications.

#### UNIT 9 : HEAT AND THERMODYNAMICS

Kinetic theory of gases, assumptions, concept of pressure, kinetic energy and temperature, mean-rms and most probable speed, degrees of freedom, statement of law of equipartition of energy, concept of mean free path and Avogadro's number

Thermal equilibrium and temperatures, zeroth law of thermodynamics, Heat-work and internal energy, Thermal expansion - thermometry. First law of thermodynamics and examples, specific heat, specific heat of gases at constant volume and constant pressure, specific heat of solids, Dulong and Petit's law. Thermodynamical variables and equation of state, phase diagrams, ideal gas equation, isothermal and adiabatic processes, reversible and irreversible processes, Carnot engines, refrigerators and heat pumps, efficiency and coefficient performance of heat engines, ideas of second law of thermodynamics with practical applications. Thermal radiation - Stefan-Boltzmann law, Newton's law of cooling.

#### UNIT 10 : OSCILLATIONS

Periodic motion - period, frequency, displacement as a function of time and periodic functions; Simple harmonic motion (S.H.M) and its equation, uniform circular motion and simple harmonic motion, oscillations of a spring, restoring force and force constant, energy in simple harmonic motion, kinetic and potential energies, simple pendulum - derivation of expression for the period; forced and damped oscillations and resonance (qualitative ideas only), coupled oscillations.

#### UNIT 11: WAVES

Longitudinal and transverse waves, wave motion, displacement relation for a progressive wave, speed of a traveling wave, principle of superposition of waves, reflection of waves, standing waves in strings and pipes, fundamental mode and harmonics, beats, Doppler effect of sound with applications.

#### UNIT 12: ELECTROSTATICS

Frictional electricity; Properties of electric charges - conservation, additivity and quantisation. Coulomb's law - Forces between two point electric charges, Forces between multiple electric charges; Superposition principle and continuous charge distribution. Electric field and its physical significance, electric field due to a point charge, electric field lines; Electric dipole, electric field due to a dipole and behavior and dipole in a uniform electric field. Electric potential-physical meaning, potential difference, electric potential due to a point charge, a dipole and system of charges; Equipotential surfaces, Electrical potential energy of a system of point charges, electric dipoles in an electrostatic field. Electric flux, statement of Gauss' theorem-its application to find field due to an infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell. Conductors and insulators-presence of free charges and bound charges; Dielectrics and electric polarization, general concept of a capacitor and capacitance, combination of capacitors in series and in parallel, energy stored in a capacitor, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, Van de Graaff generator.

#### UNIT 13: CURRENT ELECTRICITY

Electric current, flow of electric charges in a metallic conductor, drift velocity and mobility, their relation with electric current; Ohm's law, electrical resistance, V-I characteristics, limitations of Ohm's law, electrical resistivity and conductivity, classification of materials in terms of conductivity; Superconductivity (elementary idea); Carbon resistors, colour code for carbon resistors; combination of resistances - series and parallel. Temperature dependence of resistance. Internal resistance of a cell, Potential difference and emf of a cell, combination of cells in series and in parallel. Kirchoff's laws-illustration by simple applications, Wheatstone bridge and its applications, Meter bridge. Potentiometer - principle and applications to measure potential difference, comparison of emf of two cells and determination of internal resistance of a cell. Electric power, thermal effects of current and Joule's law; Chemical effects of current, Faraday's laws of electrolysis, Electro-chemical cells.

#### UNIT 14: MAGNETIC EFFECT OF CURRENT AND MAGNETISM

Concept of a magnetic field, Oersted's experiment, Biot-Savart's law, magnetic field due to an infinitely long current carrying straight wire and a circular loop, Ampere's circuital law and its applications to straight and toroidal solenoids. Force on a moving charge in a uniform magnetic field, cyclotron. Force on current carrying conductor and torque on current loop in magnetic fields, force between two parallel current carrying conductors, definition of the ampere. Moving coil galvanometer



and its conversion into ammeter and voltmeter. Current loop as a magnetic dipole, magnetic moment, torque on a magnetic dipole in a uniform magnetic field, Lines of force in magnetic field. Comparison of a bar magnet and solenoid. Earth's magnetic field and magnetic elements, vibration magnetometer. Para, dia and ferromagnetic substances with examples. Electromagnets and permanent magnets.

#### UNIT 15: ELECTROMAGNETIC INDUCTION AND ALTERNATING CURRENT

Electromagnetic induction, Faraday's laws, Induced e.m.f. and current, Lenz's law, Eddy currents, self and mutual inductance. Alternating current, peak and rms value of alternating current/voltage, reactance and impedance, L.C. oscillations, LCR series circuit. (Phasor diagram), Resonant circuits and Q-factor; power in A.C. circuits, wattless current.

AC generator and Transformer.

#### UNIT 16: ELECTROMAGNETIC WAVES

Properties of electromagnetic waves and Maxwell's contributions (qualitative ideas), Hertz's experiments, Electromagnetic spectrum (different regions and applications), propagation of electromagnetic waves in earth's atmosphere.

#### UNIT 17: OPTICS

Reflection in mirrors, refraction of light, total internal reflection and its applications, spherical lenses, thin lens formula, lens maker's formula; Magnification, Power of a lens, combination of thin lenses in contact; Refraction and dispersion of light due to a prism, Scattering of light, Blue colour of the sky and appearance of the sun at sunrise and sunset. Optical instruments, Compound microscope, astronomical telescope (refraction and reflection type) and their magnifying powers. Wave front and Huygen's principle. Reflection and refraction of plane wave at a plane surface using wave fronts (qualitative idea); Interference-Young's double slit experiment and expression for fringe width, coherent sources and sustained interference of light; Diffraction due to a single slit, width of central maximum, difference between interference and diffraction, resolving power of microscope and telescope; Polarisation, plane polarised light, Brewster's law, Use of polarised light and polaroids.

#### UNIT 18: DUAL NATURE OF MATTER AND RADIATIONS

Photoelectric effect, Einstein photoelectric equation - particle nature light, photo-cell, Matter waves - wave nature of particles. De Broglie relation, Davisson and Germer experiment.

#### UNIT 19: ATOMIC NUCLEUS

Alpha particle scattering experiment, size of the nucleus - composition of the nucleus - protons and neutrons. Nuclear instability - Radioactivity-Alpha, Beta and Gamma particle/rays and their properties, radio- active decay laws, Simple explanation of  $\alpha$ -decay,  $\beta^-$ -decay and  $\beta^+$ -decay; mass-energy relation, mass defect, Binding energy per nucleon and its variation with mass number. Nature of nuclear forces, nuclear reactions, nuclear fission, nuclear reactors and their uses; nuclear fusion, elementary ideas of energy production in stars.

#### UNIT 20: SOLIDS AND SEMICONDUCTOR DEVICES

Energy bands in solids (qualitative ideas only), difference between metals, insulators and semi-conductors using band theory; Intrinsic and extrinsic semi-conductors, p-n junction, Semi-conductor diode-characteristics forward and reverse bias, diode as a rectifier, solar cell, photo-diode, zener diode as a voltage regulator; Junction transistor, characteristics of a transistor; Transistor as an amplifier (common emitter configuration) and oscillator; Logic gates (OR, AND, NOT, NAND, NOR); Elementary ideas about integrated circuits.

#### UNIT 21: PRINCIPLES OF COMMUNICATIONS

Elementary idea of analog and digital communication; Need for modulation, amplitude, frequency and pulse modulation; Elementary ideas about demodulation, Data transmission and retrieval, Fax and Modem. (basic principles) Space communications - Ground wave, space wave and sky wave propagation, satellite communications.

# CHEMISTRY

## UNIT 1: BASIC CONCEPTS AND ATOMIC STRUCTURE

**Laws of chemical combination:** Law of conservation of mass. Law of definite proportion. Law of multiple proportions. Gay-Lussac's law of combining volumes. Dalton's atomic theory. Mole concept. Atomic, molecular and molar masses. Chemical equations. Balancing and calculation based on chemical equations.

**Atomic structure:** Fundamental particles. Rutherford model of atom. Nature of electromagnetic radiation. Emission spectrum of hydrogen atom. Bohr model of hydrogen atom. Drawbacks of Bohr model. Dual nature of matter and radiation. de Broglie relation. Uncertainty principle. Wave function (mention only). Atomic orbitals and their shapes (s, p and d orbitals only). Quantum numbers. Electronic configurations of elements. Pauli's exclusion principle. Hund's rule. Aufbau principle.

## UNIT 2: BONDING AND MOLECULAR STRUCTURE

Kossel and Lewis approach of bonding. Ionic bond, covalent character of ionic bond, Lattice energy. Born-Haber cycle. Covalent bond. Lewis structure of covalent bond. Concept of orbital overlap. VSEPR theory and geometry of molecules. Polarity of covalent bond. Valence bond theory and hybridization ( $sp$ ,  $sp^2$ ,  $sp^3$ ,  $dsp^2$ ,  $d^2sp^3$  and  $sp^3d^2$ ). Resonance. Molecular orbital method. Bond order. Molecular orbital diagrams of homodiatomic molecules. Bond strength and magnetic behaviour. Hydrogen bond. Coordinate bond. Metallic bond.

## UNIT 3: STATES OF MATTER

**Gaseous state:** Boyle's law. Charles' law. Avogadro's hypothesis. Graham's law of diffusion. Absolute scale of temperature. Ideal gas equation. Gas constant and its values. Dalton's law of partial pressure. Aqueous tension. Kinetic theory of gases. Deviation of real gases from ideal behaviour. Inter molecular interaction, van der Waals equation. Liquefaction of gases. Critical temperature.

**Liquid state:** Properties of liquids. Vapour pressure and boiling point. Surface tension. Viscosity.

**Solid state:** Types of solids (ionic, covalent and molecular). Space lattice and unit cells. Cubic crystal systems. Close packing. Different voids (tetrahedral and octahedral only). Density calculations. Point defects (Frenkel and Schottky). Electrical properties of solids. Conductors, semiconductors and insulators. Piezoelectric and pyroelectric crystals. Magnetic properties of solids. Diamagnetic, paramagnetic, ferromagnetic, antiferromagnetic and ferrimagnetic substances.

## UNIT 4: PERIODIC PROPERTIES OF ELEMENTS AND HYDROGEN

**Classification of elements:** Mendeleev's periodic table. Atomic number and modern periodic law. Long form of periodic table. Electronic configurations of elements and their position in the periodic table. Classification into s-, p-, d- and f-block elements. **Periodic properties:** Ionization energy, electron affinity, atomic radii, valence and electro negativity.

**Hydrogen:** Position in the periodic table, occurrence, isolation, preparation (including commercial), properties, reactions and uses. Isotopes of hydrogen. **Hydrides:** Molecular, saline and interstitial hydrides. **Water:** Structure of water molecule and its aggregates. Physical and chemical properties of water. Hard and soft water. Removal of hardness. Preparation and uses of heavy water: Liquid hydrogen as fuel.

## UNIT 5: S-BLOCK ELEMENTS AND PRINCIPLES OF METALLURGY

**Alkali metals:** Occurrence, electronic configuration, trends in atomic and physical properties (ionization energy, atomic radii and ionic radii), electrode potential, and reactions with oxygen, hydrogen, halogens and liquid ammonia. Oxides, hydroxides and halides.

**Alkaline earth metals:** Occurrence, electronic configuration, trends in atomic and physical properties, electrode potential, and reactions with oxygen, hydrogen and halogens. Oxides, hydroxides, halides and sulphides.

Anomalous properties of lithium and beryllium. **Compounds of s-block elements:** Large scale preparation of NaOH and  $Na_2CO_3$ , their properties and uses. Preparation and properties of CaO,  $Ca(OH)_2$ , Plaster of Paris and  $MgSO_4$ . Industrial uses of lime, limestone and cement.

**Principles of metallurgy:** Occurrence of metals. Concentration of ores. General principles of extraction of metals from ore. Thermodynamic and electro chemical principles of metallurgy. Refining of metals. Extraction of zinc, aluminium, iron and copper.

## UNIT 6: P-BLOCK ELEMENTS

**General characteristics of p-block elements:** atomic and physical properties. Oxidation states. Trends in chemical reactivity of Groups 13, 14, 15, 16 and 17 elements.

**Boron:** Occurrence, isolation, physical and chemical properties. Borax and boric acid. Boron hydrides. Structure of diborane. Uses of boron and its compounds. **Carbon:** Allotropes, properties, Oxides of Carbon. **Nitrogen:** Terrestrial abundance and distribution, isolation, properties and chemical reactivity. **Ammonia:** Haber process of manufacture, properties and uses. **Nitric acid:** Ostwald process of manufacture and important uses. **Oxides of nitrogen:** Preparation and structures (skeletal only). **Oxygen:** Terrestrial abundance, isolation, properties and chemical reactivity. **Oxides:** Acidic, basic and amphoteric oxides. Preparation, structure, properties and uses of ozone and hydrogen peroxide.

**Silica:** Different forms and uses. Structures of silicates. Silicones, Zeolites, Uses of Silicon Tetra Chloride. **Phosphorus:** Production, allotropes and phosphine. Preparation and structures of  $\text{PCl}_3$ ,  $\text{PCl}_5$ , oxyacids of phosphorus. Comparison of halides and hydrides of Group 15 elements. **Sulphur:** Production, allotropes, oxides and halides, Oxoacids of Sulphur (structure only). **Sulphuric acid:** Manufacture, properties and uses. Comparison of oxides, halides and hydrides of Group 17 elements, Oxoacids of halogens (structure only), hydrides and oxides of chlorine. Interhalogen compounds.

**Group 18 elements:** Occurrence, isolation, atomic and physical properties, uses. **Compounds of xenon:** Preparation of fluorides and oxides, and their reactions with water.

## UNIT 7: D-BLOCK AND F-BLOCK ELEMENTS

**d-Block elements:** Electronic configuration and general characteristics. Metallic properties, ionization energy, electrode potential, oxidation states, ionic radii, catalytic properties, coloured ions, complex formation, magnetic properties, interstitial compounds and alloys. Preparation and properties of  $\text{KMnO}_4$ ,  $\text{K}_2\text{Cr}_2\text{O}_7$ .

**f-Block elements:** **Lanthanides:** Occurrence, electronic configuration and oxidation states. Lanthanide contraction. Uses. **Actinides:** Occurrence, electronic configuration and comparison with lanthanides.

## UNIT 8: THERMODYNAMICS

**System and surrounding:** Types of systems. Types of processes. Intensive and extensive properties. State functions and path functions. Reversible and irreversible processes. **First law of thermodynamics:** Internal energy and enthalpy. Application of first law of thermodynamics. Enthalpy changes during phase transition. Enthalpy changes in chemical reactions. Standard enthalpy of formation. Hess's law of constant heat summation and numerical problems. Heat capacity and specific heat. **Second law of thermodynamics:** Entropy and Gibbs free energy. Free energy change and chemical equilibrium. Criteria for spontaneity.

## UNIT 9: CHEMICAL EQUILIBRIUM

**Physical and chemical equilibria:** Dynamic nature of equilibrium. Equilibria involving physical changes (solid-liquid, liquid-gas, dissolution of solids in liquids and dissolution of gases in liquids). General characteristics of equilibria involving physical processes. **Equilibria involving chemical systems:** Law of chemical equilibrium. Magnitude of equilibrium constant. Numerical problems. Effect of changing conditions of systems at equilibrium (changes of concentration, temperature and pressure). Effect of catalyst. The Le Chatelier principle and its applications. Relationship between  $K_p$  and  $K_c$ . Ionic equilibrium. Ionization of weak and strong electrolytes. **Concepts of acids and bases:** Those of Arrhenius, Bronsted-Lowry and Lewis. Acid-base equilibrium. Ionization of water. pH scale. Salt hydrolysis. Solubility product. Common ion effect. Buffer action and buffer solutions.

## UNIT 10: SOLUTIONS

**Types of solutions:** Different concentration terms (normality, molarity, molality, mole fraction and mass percentage). Solubility of gases and solids. Vapour pressure of solutions and Raoult's law. Deviation from Raoult's law. **Colligative properties:** Lowering of vapour pressure, elevation in boiling point, depression in freezing point and osmotic pressure. Ideal and non-ideal solutions. Determination of molecular mass. Abnormal molecular mass. The van't Hoff factor and related numerical problems.

## UNIT 11: REDOX REACTIONS AND ELECTROCHEMISTRY

**Oxidation and reduction:** Electron transfer concept. Oxidation number. Balancing equations of redox reactions: Oxidation number method and ion electron method (half reaction method).

**Faraday's laws of electrolysis:** Quantitative aspects. Electrolytic conduction. Conductance. Molar conductance. Kohlrausch's law and its applications. Electrode potential and electromotive force (e.m.f.). Reference electrode (SHE only). Electrolytic and Galvanic cells. Daniel cell. The Nernst equation. Free energy and e.m.f. Primary and secondary cells. Fuel cell (H<sub>2</sub>-O<sub>2</sub> only). **Corrosion and its prevention:** Electrochemical theory of rusting of iron. Methods of prevention of corrosion. Galvanization and cathodic protection.

#### UNIT 12: CHEMICAL KINETICS

Rate of reaction. Average and instantaneous rates. Rate expressions. Rate constant. Rate law. Order and molecularity. Integrated rate law expressions for zero and first order reactions and their derivations. Units of rate constant. Half life period. Temperature dependence of rate constant. Arrhenius equation. Activation energy, Collision Theory (Elementary theory) and related numerical problems. Elementary and complex reactions with examples.

#### UNIT 13: SURFACE CHEMISTRY

**Adsorption:** Physical and chemical adsorption. Factors affecting adsorption. Effect of pressure. Freundlich adsorption isotherm. Catalysis. Enzymes. Zeolites. **Colloids:** Colloids and suspensions. Dispersion medium and dispersed phase. Types of colloids: Lyophobic, lyophilic, multimolecular, macromolecular and associated colloids. Preparation, properties and protection of colloids. Gold number. Hardy Schulze rule. Emulsions.

#### UNIT 14: COORDINATION COMPOUNDS AND ORGANOMETALLICS

Ligand. Coordination number. IUPAC nomenclature of coordination compounds mononuclear, Isomerism in coordination compounds. Geometrical, optical and structural isomerism. Bonding in coordination compounds. Werner's coordination theory. Valence bond approach. Hybridization and geometry. Magnetic properties of octahedral, tetrahedral and square planar complexes. Introduction to crystal field theory. Splitting of d orbitals in octahedral and tetrahedral fields (qualitative only). Importance of coordination compounds in qualitative analysis and biological systems such as chlorophyll, hemoglobin and vitamin B<sub>12</sub> (structures not included).

#### UNIT 15: BASIC PRINCIPLES, PURIFICATION AND CHARACTERIZATION OF ORGANIC COMPOUNDS

Distinction between organic and inorganic compounds. Tetra valence of carbon. Catenation. Hybridization (sp, sp<sup>2</sup> and sp<sup>3</sup>). Shapes of simple molecules. General introduction to naming of organic compounds. Trivial names and IUPAC nomenclature. Illustrations with examples. Structural isomerism. Examples of functional groups containing oxygen, hydrogen, sulphur and halogens. **Purification of carbon compounds:** Filtration, crystallization, sublimation, distillation, differential extraction and chromatography (column and paper only). **Qualitative analysis:** Detection of carbon, hydrogen, nitrogen and halogens. **Quantitative analysis:** Estimation of carbon, hydrogen, nitrogen, sulphur, phosphorus and halogens (principles only), and related numerical problems. Calculation of empirical and molecular formulae.

#### UNIT 16: HYDROCARBONS

Classification of hydrocarbons. **Alkanes and cycloalkanes:** Nomenclature and conformation of ethane. 3D structures and 2D projections (Sawhorse and Newman). **Alkenes and alkynes:** Nomenclature. Geometrical isomerism in alkenes. Stability of alkenes. General methods of preparation. Physical and chemical properties. Markownikoff's rule. Peroxide effect. Acidic character of alkynes. Polymerization reactions of dienes.

**Aromatic hydrocarbons:** Nomenclature. Isomerism. Benzene and its homologues. Structure of Benzene. Resonance. Delocalisation in benzene. Concept of aromaticity (an elementary idea). Chemical reactions of benzene. Polynuclear hydrocarbons and their toxicity.

#### UNIT 17: ORGANIC REACTION MECHANISM

**Electronic displacement in a covalent bond:** Inductive, electromeric, resonance and hyperconjugation effects. Fission of a covalent bond. Free radicals, electrophiles, nucleophiles, carbocations and carbanions.

**Common types of organic reactions:** Substitution, addition, elimination and rearrangement reactions. Illustrations with examples. Mechanism of electrophilic addition reactions in alkenes. Concept of delocalisation of electrons. Mechanism of electrophilic substitution reactions. Directive influence of substituents and their effect on reactivity (in benzene ring only).