CONTENTS

AMRITA ENTRANCE EXAMINATION - ENGINEERING 2013

(FOR ADMISSION TO B.TECH. PROGRAMMES)

HANDBOOK

1. INTRODUCTION

Amrita Vishwa Vidyapeetham is a University established under section 3 of the UGC Act 1956. The University focuses on higher education and research in the areas of Engineering, Medicine, Management, Science, Education, Mass Communication and Social Work. The University has five campuses at Amritapuri (Kollam), Bengaluru, Coimbatore, Kochi and Mysore.

Amrita Vishwa Vidyapeetham is conducting its Engineering Entrance Examination every year on an all India basis for admission to the 4 year B.Tech. Degree programmes offered in the three campuses at Amritapuri (Kollam), Bengaluru and Ettimadai (Coimbatore). Candidates who satisfy the eligibility criteria will be admitted to the first year of B.Tech. programmes through counselling, based on their ranks in the Entrance Examination.

This handbook contains general information and rules relating to the Amrita Entrance Examination – Engineering 2013 and other relevant details about B.Tech. programmes, fee structure, examination centres, syllabus, application forms, counselling etc. Candidates are required to go through the handbook thoroughly and acquaint themselves with the details relating to the entrance examination and subsequent admission. The contents of the handbook are subject to modification as may be deemed necessary by the University.

2. CAMPUSES & B.Tech. PROGRAMMES

The various B.Tech. programmes offered in the three Schools of Engineering are listed below:

Amritapuri Campus
Computer Science & Engineering
Electrical & Electronics Engineering
Electronics & Communication Engineering
Mechanical Engineering
Bengaluru Campus
Computer Science & Engineering
Electrical & Electronics Engineering
Electronics & Communication Engineering
Electronics & Instrumentation Engineering
Mechanical Engineering
Coimbatore Campus
Aerospace Engineering
Chemical Engineering
Civil Engineering
Computer Science & Engineering
Electrical & Electronics Engineering
Electronics & Communication Engineering
Electronics & Instrumentation Engineering
Mechanical Engineering

Note : Applications are processed at Coimbatore campus. Hence all B.Tech. applications shall be sent to the Coimbatore Campus only.

For admission enquiries : 0422 - 2685 169 / 170 (between 9 am and 4 pm on working days)

3. ELIGIBILITY

3.1 **Age** – Candidates shall be born on or after **1st July 1992**.

3.2 **Educational Qualification** – A pass in the final examination of 10+2 (class XII) or its equivalent securing 60% or above marks in Mathematics, 55% or above separately in Physics and Chemistry with an aggregate of 60% in the three subjects.

(OR)

A three year Diploma in Engineering with minimum 60% marks, awarded by any State Board of Technical Education.

Note: **Those who appear for the above examinations in April / May 2013 and expect to secure minimum marks as above, may also apply.**

4. APPLICATION FORM (REFER UNIVERSITY WEBSITE FOR COMPLETE DETAILS OF SALE OUTLETS)

◆ Application form will be in a format that can be processed by Optical Mark Reader(OMR).

4.1 **Cost of Application kit is Rs.850/-, which covers the cost of Application form, University Brochure, Information Handbook and Examination fee. Application fee once paid will not be refunded.**

Application forms of Amrita Entrance Examination – Engineering 2013 can be obtained as given in 4.2,4.3,4.4, and 4.5.

4.2 By post, from the Admission Co-ordinators of Amrita Schools of Engineering at Amritapuri, Bengaluru and Coimbatore, on a written request indicating their full communication address together with a Demand Draft for Rs.850/- drawn in favour of **Amrita School of Engineering payable at Coimbatore.**

OR

4.3 From the University counter of Amrita Schools of Engineering at Amritapuri, Bengaluru and Coimbatore on producing a demand draft for Rs.850/- as above.

OR

4.4 For other sales outlet details (Post Office, Banks etc.) visit the University Web site www.amrita.edu

OR

4.5 Online Application : Apply through website and submit the application printout in an A4 sheet along with a demand draft for Rs.850/- and a passport size colour photograph affixed in the specified location.

Note: When a demand draft is attached, on the back of the Demand Draft, candidate should write his / her Name and " B.Tech Application". Please keep a photocopy of the application and Demand Draft with you for future reference.

5. ONLINE APPLICATIONS

while applying online, refer to university website for instructions.

6. CODED APPLICATION - INSTRUCTIONS (ANNEXURE VI)

Please read carefully the guidelines in sections 6 & 7 before filling the **printed Application Form**.

6.1 The application form will be processed by Computer based OMR. Hence use HB Pencil and Black Ball Point Pen wherever applicable as per the instructions in section 6 and 7.

6.2 Mark your response only within the space provided for the purpose. Response marked outside the space will not be read by the machine.

6.3 Application form should be filled in English only. Using black ball point pen write in capital letters the required information in the boxes (wherever provided) above the bubbles (ovals). Then completely darken the bubbles under each letter / number using HB Pencil.

6.4 Do not make any stray mark on the coded Application Form.

6.5 Do not enclose any certificate along with filled-in application & don't get attestation in the application.

6.6 Candidates must use only the original coded form; photocopy of the coded form will not be accepted.

6.7 Handle the coded sheet very carefully. **Do not staple, pin, wrinkle, tear or wet the coded sheet. Tampered application is liable to be rejected**.

6.8 Coded Application form is to be folded in the same manner as it is supplied. No new fold should be made.

6.9 Incomplete application forms will be summarily rejected and no communiction will be sent in this regard.

6.10 Coded Application Form is enclosed in a pre-addressed special envelope. The applicants should despatch the filled-in form in the same pre-addressed envelope to **the Admission Co-ordinator (see section 8.2).**

6.11 **Request for change or correction of any information given in the application form will not be entertained under any circumstance.**

7. GUIDELINES FOR FILLING EACH ITEM IN THE CODED APPLICATION FORM

The coded Application Form contains 20 items. Please fill up all the items carefully as per the guidelines below.

- Please note that the relevant bubbles (ovals) shall be completely darkened using **HB Pencil** and all **writings** shall be with **Black Ball Point Pen.**
  - **Use black ball point pen** for writing inside the **rectangle boxes** in items **1**, **4**, **5, 6**, **7**, **11** & **16** and items **8**, **10**, **18** & **19.**
  - **Use HB pencil** for filling up the bubbles in items **1** to **7** and from **11** to **16.**
- If you desire to correct any entry made with HB pencil, you have to completely erase the wrong entry without damaging the paper and leaving any smudge, since a partially erased mark leads to wrong reading by the Optical Mark Reading machine.
- Candidates should take extreme care while writing inside the boxes using black ball point pen. In case any letter is entered wrongly, strike out the letter and write above it correctly. **Correction fluid should not be used.**

7.1 **Name of the Candidate (Item 1)**

7.1.1 Within the rectangular boxes, write your name in CAPITAL letters **as in the 12th class certificate using Black Ball Point Pen**

7.1.2 Leave one box vacant between the names and the initials as,

A	N	I	L		V	A	R	M	A		P	K

7.1.3 Darken the corresponding bubbles with HB pencil.

7.2 **Social Status (Item 2)**

7.2.1 Four categories are indicated namely Scheduled Caste (SC), Scheduled Tribe (ST), OBC and Others. Darken the appropriate bubble.

7.2.2 Community certificate **shall not be enclosed** with the application form, but shall be produced during counselling.

7.3 **Gender (Item 3)**

- Darken the appropriate bubble against Male or Female to denote the candidate's gender.

7.4 **Date of Birth (Item 4)**

◆ Fill in the date of birth in Christian era in the boxes as below and darken the appropriate bubbles.

16th August 1992

D	D	M	M	Y	Y
1	**6**	**0**	**8**	**9**	**2**

7.5 **State/Union Territory from where you have completed 12th class / diploma (Item 5)**

◆ The code numbers for the States / Union Territories are given in **Annexure II**. Write the appropriate code number in the rectangular box provided. Darken the corresponding bubbles. The code denotes the state where the candidate has passed 12th / Pre-degree. Application will not be processed if the state code is not correctly entered. See section 20.3 also.

7.6 **City code of Examination centre opted (Item 6)** (See Section 11)

◆ List of cities where the examination will be conducted is given in **ANNEXURE III.** Candidates are required to enter the city code number of I Choice and II Choice in the rectangular box and darken the corresponding bubbles. If the candidate marks the bubble wrongly, the hall ticket will be generated accordingly and no change of centre will be entertained subsequently on request. Due to any reason, if either of the two exam centres opted by the candidate cannot be allotted, the university reserves its discretion to allot the candidate to another centre.

◆ **Centre once allotted will not be changed on request under any circumstance.**

7.7 **Pin Code for Communication Address (Item 7)**

◆ Write the pin code of the post office of your mailing address in the boxes and darken the corresponding bubbles. Please ensure that the same number is written in item 8.

7.8 **Full name and complete postal address of the candidate (Item 8)**

◆ The address written in this box will be scanned as such and used for sending hall ticket and subsequent correspondence. In order to ensure prompt delivery of letter, **the full name and address of the candidate should be written legibly in CAPITAL letters using black ball point pen.** It should not touch or cross the border. State clearly your contact telephone number with STD code. Write the mobile number, if any. Write the Email address, if any, **in CAPITAL letters for clarity**. If your hand writing is not clear, or the address is incomplete, the letters sent are liable to be returned by the postal authorities and the university will not be responsible in this regard.

7.9 **Photograph (Item 9)**

7.9.1 Affix a good quality passport size colour photograph (size 3.5 X 4.5 cm) taken within the last three months. **Do not make any attestation in the photograph**. Do not staple or pin the photograph. The photograph shall not be larger than the space (box) provided for affixing it.

7.9.2 The candidates are advised to keep with them six copies of the photograph for subsequent use during counselling / admission.

7.10 **Signature of the Candidate (Item 10)**

◆ Your signature establishes your identity. Put your usual signature using **black ball point pen** within the box provided. The signature should not touch or cross the border of the box. The signatures in item number **10** and item number **19** shall be identical.

7.11 **Name of the Parent / Guardian (Item 11)**

◆ Write the name of parent in CAPITAL letters in the rectangular box provided. If both the parents are not alive, write the name of the guardian.

◆ Leave one box vacant between the names and the initials as,

K	R	I	S	H	N	A		K	U	M	A	R		C	K

◆ Write the name using black ball point pen and darken the corresponding bubbles with HB pencil.

7.12 **Relationship of the person in item number 11 with the candidate (Item 12)**

◆ Darken the bubble against the relationship to indicate whether Father, Mother or Guardian.

7.13 **Nationality (Item 13)**

◆ Darken the appropriate bubble.

7.14 **Your Qualifying Examination (Item 14)**

7.14.1 In case of 10+2 (class XII) or equivalent , darken the first bubble.

7.14.2 In case of Diploma (of minimum 3 years), darken the second bubble.

7.15 **Board conducting your qualifying examination (Item 15)**

◆ Mention the Board conducting the examination, viz. , CBSE / ICSE / State Board / Any other scheme equivalent to 10+2 (class XII) / TECH.EDN. by darkening the appropriate bubble.

7.16 **Land phone (Item 16)**

◆ Indicate your land phone number (with STD code) by writing in the rectangular box and darkening the bubbles. Leave one space between the STD code and the telephone number.

0	4	2	2		2	6	8	5	0	0	0

7.17 **Declaration (Item 17)**

◆ Candidate and the parent / guardian should read and understand the declaration carefully.

7.18 **Signature of the Candidate (Item 18)**

◆ Use black ball point pen.

7.19 **Signature of the Parent / Guardian (Item 19)**

By signing the declaration, the candidate and the parent / guardian undertake the responsibility for the correctness of all the statements in the application. So they shall ascertain the truth / correctness of the statements. Signature shall be with black ball point pen only. Application without the signature of the candidate and Parent / Guardian will be rejected. Write the place and date in the space marked for the purpose.

8. SUBMISSION OF THE FILLED-IN APPLICATION

8.1 **Please note down the Application number in your personal record and keep a photocopy of the filled-in application for future reference and correspondence**.

8.2 Duly filled-in application form shall be sent in the pre-addressed cover to the **following address only**:

The Admission Co-ordinator,
Amrita School of Engineering, Amrita Vishwa Vidyapeetham,
(P.O) Amritanagar, Ettimadai , Coimbatore 641 112, Tamil Nadu. Phone: 0422 - 2685000 .

(Applications are processed only at the above office)

For enquiries, use only the phone numbers given in section 10

8.3 **Candidates are advised to send the filled-in applications by INDIA SPEED POST.**

8.4 **Please send the filled-in application form at the earliest, so that the hall ticket will be reaching you sufficiently early, thus avoiding anxiety and confusion at the last moment**.

9. HALL TICKET & IDENTIFICATION

9.1 No candidate will be allowed to appear for the Entrance Examination without valid hall ticket. In the Examination hall, candidate should produce the hall ticket when demanded by the invigilator.

9.2 The University will start issuing the hall tickets 30 days before the examination, mentioning the candidate's registration number and examination centre allotted and the details will be available in the University website. If you do not receive the hall ticket 10 days before the date of examination, please call 0422 – 2685 169 / 170, on working days between 9 AM and 4 PM, quoting the application number and examination centre opted.

9.3 Hall tickets of all Candidates will be uploaded to the university website three days prior to the exam. If needed, candidates can download their hall tickets, entering their application number and date of birth.

9.4 In case you require a duplicate hall ticket, you should contact the University Representative at the Examination centre on the previous day of the examination and produce Xerox copies of the demand draft and the filled-in application to establish your candidature.

9.5 In the examination hall each candidate shall sign the attendance sheet. This signature shall be identical with the signatures on the Application form and the Hall Ticket. During the examination, **the candidate's left hand thumb impression also will be taken in the attendance sheet for identification**. Thumb impression will be taken again at the time of admission for comparison.

9.6 Candidates shall retain their hall tickets and produce the same at the time of counselling.

10. ADMISSION ENQUIRIES

- **For all enquiries related to the Entrance Examination, and admission based on the entrance examination, please call 0422 – 2685 169 / 170 between 9.00 am - 4.00 pm on working days**.

11. EXAMINATION CENTRES

- Entrance examination will be conducted in schools / colleges situated in major cities / towns throughout India. The names of those cities / towns are listed in **Annexure III** along with the city code. Examination will be conducted in a centre only if there are sufficient candidates.

12. AT THE EXAMINATION CENTRE

12.1 Candidates shall be present at the examination centre 30 minutes before the commencement of the examination. Candidates will not be allowed to appear for the examination without producing the Hall Ticket.

12.2 **Any malpractice or attempt to commit malpractice in the examination hall or any violation of the rules will lead to disqualification of the candidate.**

12.3 Candidates must bring blue / black ball point pen, HB pencils, pencil sharpener and eraser.

12.4 Candidates shall occupy their respective allotted seats at 9.35 am.

12.5 Candidates will not be admitted to the examination hall 30 minutes after the commencement of examination.

12.6 Candidates will not be allowed to carry any textual material, printed or written bits of paper, Mathematical and Physical tables, electronic gadgets like calculator, cell phone etc. into the examination hall.

12.7 Read carefully the instructions on the question booklet and the coded answer sheet before answering the questions and fill up the required details on the question booklet and answer sheet. **(see page 23,24 & 13)**

12.8 Handle the OMR answer sheet carefully; no spare answer sheet will be given.

12.9 Candidates will not be allowed to leave the examination hall before the end of the examination.

12.10 Candidates should hand over the answer sheet and the question booklet to the invigilator at the stroke of the long bell at 1.00 PM.

12.11 If a candidate does not return the Question Booklet his/her answer sheet will not be valued.

12.12 **After handing over the answer sheet and question booklet to the invigilator, each candidate shall remain in his / her seat and affix his / her left hand thumb impression in the attendance sheet. The answer sheet of a candidate will not be valued if he / she has not affixed his / her thumb impression on the attendance sheet.**

13. ABOUT THE ENTRANCE EXAMINATION

13.1 **Entrance Examination Pattern:** The duration of the Examination is 3 hours **(10 AM to 1 PM).** There will be only one question paper containing objective type questions in Mathematics, Physics and Chemistry. Each question will be followed by four answers of which only one is correct / most appropriate. The question booklet will be in English. Each question carries 3 marks. **Negative mark (-1) will be awarded for each wrong answer**.

13.2 **Subject Combination:**

Subject	Weightage	Total No. of Questions	Total Marks
Mathematics	60 questions	120	360 (120 x 3)
Physics	30 questions		
Chemistry	30 questions		

14. QUESTION BOOKLET & ANSWER SHEET

14.1 Sealed question booklet will be in 4 versions A, B, C & D. The version code of the question booklet, the number of pages and question booklet number will be printed on the front page of the question booklet.

14.2 Front page layout of the question booklet **(Refer to Annexure V)**

- **Using blue / black ball point pen, candidate shall write his / her name, registration number and signature in the spaces provided in the question booklet.**

14.3 **Answer sheet**

- An OMR answer sheet is used for marking the answers. Specimen of the OMR answer sheet is given in **Annexure - I**

14.4 **Distribution of Question Booklet and Answer Sheet**

- Question booklet and coded answer sheet will be distributed in the examination hall 15 minutes before the actual time of commencement of examination, so that the candidates shall have sufficient time to read the instructions and fill up the required information on question booklet and answer sheet.

14.5 **Important Points to note**

- The candidate should not do any rough work on the answer sheet. All rough work should be done in the space provided for the purpose in the question booklet.
- Extra care is needed while handling the coded answer sheet in the following respects.
- **DO NOT: (i) pin or staple (ii) punch or tag (iii) make hole anywhere (iv) wet or soil (v) tear or mutilate (vi) wrinkle or fold the coded answer sheet.**

15. ENTRIES ON THE OMR ANSWER SHEET

DATA PART of the coded sheet

- **The coded answer sheet has provision for entering the following data**:

- ❑ Registration Number
- ❑ Question booklet number
- ❑ Question booklet version code
- ❑ Signature of the Candidate
- ❑ Name of the Candidate
- ❑ Signature of the Invigilator
- ❑ Name of the Invigilator

◆ **Before you start answering, write the details using blue / black ball point pen and darken the bubbles using HB pencil or blue / black ball pen as per the instructions below. Answer sheets without these details will not be valued.**

15.1 **Registration Number**: On the answer sheet, write the registration number within the rectangular box provided as given in the hall ticket and darken the corresponding bubbles. The registration number should be written without any correction or overwriting.

15.2 **Question booklet number**: This number is printed on the front page of the question booklet. Copy this number in the rectangular box on the answer sheet and darken the appropriate bubbles.

15.3 **Question booklet version code**: The question booklet given to you has a version code A, B, C or D. Write this code in the rectangular box and darken the appropriate bubble.

15.4 **Signature of the candidate**: **The candidate has to sign in the space indicated and it should** match with the signature in the Application Form and Hall Ticket.

15.5 **Name of the candidate**: **Write the name as given in the hall ticket in CAPITAL letters correctly and legibly**.

15.6 **Signature and name of the invigilator:** The invigilator will make these entries.

15.7 **Correcting entries in the answer sheet:** If any entry in INK happens to be wrong, strike off the same and write correctly in the nearby space. Please 'DO NOT' use correction fluid on the answer sheet. If any entry made using pencil happens to be incorrect, erase the same carefully without leaving any smudge and darken the correct bubble.

ANSWER PART of the coded sheet (Use HB Pencil or blue / black ball point pen only)

- ◆ This portion is intended for marking the answers to the questions.
- ◆ For each question, four alternative answers and corresponding four bubbles are given.
- ◆ Select the correct or most appropriate answer, and shade the corresponding bubble using **HB pencil or blue / black ball point pen.** eg., If the answer to the **question 2 is C, the bubble C has to be darkened as shown below**.

Question No.	Answers
1.	(A) (B) (C) (D)
2.	(A) (B) ● (D)
3.	(A) (B) (C) (D)

- ◆ Mark / shade only one bubble against each question in the answer sheet. The bubble should be darkened completely.
- ◆ In case a candidate, after a second thought, wishes to change the choice already darkened with HB pencil, he / she may erase the marking completely with a good eraser and thereafter darken the alternative bubble

afresh. **While erasing, extreme care should be taken to see that there is no damage to the sheet or no smudge left, as it will affect the evaluation. Bubbles darkened with ball point pen cannot be altered and hence a firm and final decision should be taken before marking with pen.**

16. OPENING THE QUESTION BOOKLET

16.1 Two minutes before the commencement of the examination, the invigilator will announce to open the question booklet. Do not open / break the seal before the announcement.

16.2 Immediately after opening the question booklet, the candidate should check the following.

a. Whether the question booklet and all the pages are in good condition.

b. Whether it has the exact number of pages mentioned on the front page.

c. Whether it contains 120 questions numbered in serial order.

17. EXAMINATION TIME SCHEDULE

Duration of the Examination	10.00 AM – 1.00 PM
Entry to the Examination hall	9.35 AM (Long Bell)
Distribution of Question booklet and OMR answer sheet	9.45 AM (Short Bell)
Filling-up the entries in the question booklet and answer sheet	9.45 – 9.58 AM
Opening the question booklet	9.58 AM (Short Bell)
Examining of the question booklet	9.58 – 10.00 AM
Commencement of the Examination	10.00 AM (Short Bell)
Late entry of candidates to the hall permitted till	10.30 AM
Warning Bell	12.50 PM (Short Bell)
End of the Examination	1.00 PM (Long Bell)
Submission of answer sheet & question booklet	1.00 PM
Affixing the left hand thumb impression	1.00 PM – 1.10 PM

18. EVALUATION AND NEGATIVE MARKS

18.1 Three marks will be awarded for every correct answer. **For every incorrect answer, one mark will be deducted from the total score.** If no response is indicated in the answer sheet against a question, no marks, positive or negative will be awarded. If more than one answer is indicated against a question, it will be treated as "incorrect answer" and negative mark will be awarded. You are advised to mark an answer only if you are sure that it is the most appropriate .

18.2 **The answer sheets are machine graded and scrutinized with precision. Hence request for revaluation, rechecking or retotalling will not be entertained**.

19. PUBLICATION OF RANK LIST

◆ Rank list will be published in the University website within four weeks from the date of examination.

20. COUNSELLING AND ADMISSION

20.1 Counselling for admission will be in May / June 2013. Counselling call letter will be sent to the eligible candidates after the publication of the rank list of the Amrita Entrance Examination. The counselling schedule will be available in the university website.

20.2 Counselling will be arranged simultaneously in the three campuses using satellite connectivity. Candidate can appear for counselling in any one of the three campuses and opt a branch in any campus according to his / her preference and availability of seat.

20.3 A certain percentage of seats in each campus will be earmarked for the candidates who passed 12th class from the respective states in which the campus is situated. In order to ensure admission to candidates from all states, the maximum intake from any state will be limited to 50% of the open quota seats.

20.4 Candidate must be physically present for counselling. Parent / Guardian shall accompany the candidate.

20.5 At the time of Counselling, candidates shall produce originals of the following:

- ❑ Marks statements of class X and XII,
- ❑ Hall tickets of class XII Examination & Amrita Entrance Examination – Engg. 2013,
- ❑ Transfer Certificate from the school last attended,
- ❑ Community certificate in case of SC / ST,
- ❑ Other testimonials as specified in the call letter.

20.6 If the original certificates are not produced by a candidate, he / she will not be permitted to attend the counselling.

20.7 **When a candidate accepts the seat allotment, his / her original certificates will be retained by the University, unless otherwise decided by competent authority.**

20.8 Before seat allotment, each candidate has to pay Rs. 30,000/- by Demand Draft as part of tuition fees. Candidates are required to pay the balance fees and complete all other formalities within the time limit prescribed in the provisional admission order. The time limit will normally be ten days from the date of counselling. Request for extension of time for payment of fees will not be entertained. If a candidate fails to remit the fees on the stipulated date his/her admission will get automatically cancelled without any notice.

20.9 The candidates shall attend the counselling in neat formal dress.

20.10 **Counselling call letter sent to a candidate does not guarantee admission to the B.Tech.Programme**. Candidates are advised to note the seat availability from our website before coming to attend the counselling.

20.11 The first year B.Tech. classes are expected to start by the last week of July.

21. WITHDRAWAL FROM THE PROGRAMME AND REFUND OF FEES

Refund of fees will be made as per the regulations of the Govt.of India. If a student admitted to the B.Tech. programme withdraws from the programme before the starting of the classes, the fees collected from the student will be refunded after deducting a processing fee of Rs.1000/-.

If a student leaves after starting the classes, but before closing the admission, and if the seat consequently falling vacant is filled by another candidate before the last date of admission, the University will return the fees collected with proportionate deductions of monthly fees. If the vacancy is not filled up as above, the fee will not be refunded.

No refund will be given to a student leaving after the closing of admissions.

The date of closing of admissions will be announced by the University.

ANNEXURE - I

SAMPLE OMR ANSWER SHEET

AMRITA ENTRANCE EXAMINATION - ENGINEERING

Answer Sheet No . 1 3 7 8 5

USE BLUE / BLACK BALL PEN OR HB PENCIL FOR ANSWERS

INSTRUCTIONS

1. Use Black Ball Point Pen for writing in the boxes at 1, 2, and 3.
2. Use Blue / Black Ball Pen or HB Pencil for darkening the Bubbles.

Examples

3. If your question booklet version code is C, write C in the box using Black Ball Point Pen and darken the bubble 'C' with HB Pencil / Ball Pen.

C (A) (B) ● (D)

4. If the answer to Question No . 7 is B, darken the bubble 'B' as below using HB pencil / Ball Pen.

7. (A) ● (C) (D)

1. Registration No .

2 0 5 0 2 4 0 5

2. Question Booklet No .

1 0 0 9 4 8

3. Question Booklet Version Code A

Q.No	Answers	Q.No	Answers	Q.No	Answers
1	(A) (B) (C) ●	41	(A) ● (C) (D)	81	(A) (B) ● (D)
2	(A) (B) ● (D)	42	(A) (B) (C) ●	82	● (B) (C) (D)
3	(A) (B) (C) ●	43	(A) (B) ● (D)	83	(A) ● (C) (D)
4	(A) ● (C) (D)	44	● (B) (C) (D)	84	(A) (B) ● (D)
5	(A) (B) ● (D)	45	(A) (B) (C) ●	85	(A) (B) (C) ●
6	(A) (B) ● (D)	46	(A) (B) ● (D)	86	(A) (B) ● (D)
7	(A) ● (C) (D)	47	(A) ● (C) (D)	87	(A) (B) ● (D)
8	(A) (B) (C) ●	48	(A) (B) ● (D)	88	(A) (B) ● (D)
9	● (B) (C) (D)	49	(A) (B) ● (D)	89	● (B) (C) (D)
10	(A) (B) (C) ●	50	(A) ● (C) (D)	90	(A) ● (C) (D)
11	(A) ● (C) (D)	51	(A) (B) (C) ●	91	● (B) (C) (D)
12	● (B) (C) (D)	52	● (B) (C) (D)	92	(A) (B) ● (D)
13	(A) ● (C) (D)	53	(A) ● (C) (D)	93	(A) ● (C) (D)
14	(A) (B) ● (D)	54	(A) ● (C) (D)	94	(A) ● (C) (D)
15	(A) ● (C) (D)	55	(A) (B) ●	95	● (B) (C) (D)
16	(A) (B) ● (D)	56	(A) (B) ● (D)	96	(A) ● (C) (D)
17	● (B) (C) (D)	57	(A) (B) (C) ●	97	● (B) (C) (D)
18	(A) ● (C) (D)	[illegible]	(A) (B) (C) (D)	98	(A) ● (C) (D)
19	(A) (B) (C) ●	[illegible]	(A) (B) ● (D)	99	(A) (B) ● (D)
20	(A) ● (C) (D)	[illegible]	(A) ● (C) (D)	100	(A) ● (C) (D)
21	(A) (B) (C) ●	[illegible]	(A) (B) ● (D)	101	(A) (B) (C) ●
22	(A) (B) (C) [illegible]	62	(A) (B) (C) ●	102	(A) ● (C) (D)
23	(A) (B) [illegible]	63	(A) ● (C) (D)	103	(A) (B) ● (D)
24	(A) ● [illegible]	64	● (B) (C) (D)	104	(A) ● (C) (D)
25	● (B) [illegible]	65	(A) ● (C) (D)	105	(A) ● (C) (D)
26	(A) [illegible]	66	(A) ● (C) (D)	106	(A) (B) (C) ●
27	(A) [illegible] (D)	67	(A) (B) (C) ●	107	(A) (B) ● (D)
28	● [illegible] (C) (D)	68	(A) (B) ● (D)	108	(A) ● (C) (D)
29	(A) ● (C) (D)	69	(A) ● (C) (D)	109	(A) ● (C) (D)
30	(A) (B) ● (D)	70	(A) (B) (C) ●	110	(A) (B) ● (D)
31	(A) ● (C) (D)	71	(A) (B) ● (D)	111	(A) (B) (C) ●
32	(A) (B) ● (D)	72	● (B) (C) (D)	112	(A) (B) (C) ●
33	● (B) (C) (D)	73	(A) (B) (C) ●	113	(A) (B) (C) ●
34	(A) (B) ● (D)	74	(A) (B) (C) ●	114	(A) ● (C) (D)
35	(A) ● (C) (D)	75	● (B) (C) (D)	115	● (B) (C) (D)
36	(A) (B) (C) ●	76	(A) ● (C) (D)	116	(A) ● (C) (D)
37	(A) ● (C) (D)	77	(A) (B) ● (D)	117	● (B) (C) (D)
38	(A) (B) ● (D)	78	(A) (B) (C) ●	118	(A) (B) ● (D)
39	● (B) (C) (D)	79	(A) ● (C) (D)	119	(A) (B) ● (D)
40	(A) (B) ● (D)	80	● (B) (C) (D)	120	(A) (B) (C) ●

4. Signature of the Candidate

Vidhya Raju

Name :

VIDHYA RAJU

Entries at Registration No ., Question Booklet No ., Question Booklet Version Code, Signature of the Candidate and Name are verified and found correct.

Signature of the Invigilator :

Name : Beena R

ANNEXURE - II

LIST OF STATES / UNION TERRITORIES WITH CODE NUMBER

(See item 5 in the application form)

Sl. No	State	Code
1	Andhra Pradesh	01
2	Arunachal Pradesh	02
3	Assam	03
4	Bihar	04
5	Chhattisgarh	05
6	Goa	06
7	Gujarat	07
8	Haryana	08
9	Himachal Pradesh	09
10	Jammu and Kashmir	10
11	Jharkhand	11
12	Karnataka	12
13	Kerala & Mahe	13
14	Madhya Pradesh	14
15	Maharashtra	15
16	Manipur	16
17	Meghalaya	17
18	Mizoram	18
19	Nagaland	19
20	Orissa	20
21	Punjab	21
22	Rajasthan	22
23	Sikkim	23
24	Tamil Nadu & Puducherry	24
25	Tripura	25
26	Uttar Pradesh	26
27	Uttaranchal	27
28	West Bengal	28
	UNION TERRITORIES	
29	Andaman and Nicobar Islands	29
30	Chandigarh	30
31	Dadra and Nagar Haveli	31
32	Daman and Diu	32
33	Lakshadweep	33
34	Delhi	34
35	Countries other than India	40

ANNEXURE - III

EXAMINATION CITIES WITH CODE NUMBER

(See item 6 in the application form)

S.No	State	No	City / Town	City / District Code	No	City / Town	City / District Code
1	Tamilnadu	1	Chennai	101	11	Ooty	112
		2	Coimbatore	102	12	Pudukottai	113
		3	Cuddalore	103	13	Puducherry	114
		4	Dindigul	104	14	Salem	115
		5	Erode	105	15	Thanjavur	116
		6	Hosur	106	16	Tirunelveli	117
		7	Karur	107	17	Tirupur	118
		8	Madurai	108	18	Trichy	119
		9	Nagercoil	109	19	Tuticorin	120
		10	Namakkal	110	20	Vellore	121
2	Kerala	1	Alappuzha	201	9	Kozhikode	209
		2	Amritapuri	202	10	Malappuram	210
		3	Ernakulam	203	11	Palakkad	211
		4	Kalpetta	204	12	Pathanamthitta	212
		5	Kannur	205	13	Thiruvananthapuram	213
		6	Kasaragod	206	14	Thrissur	214
		7	Kollam	207	15	Thodhupuzha	215
		8	Kottayam	208			
3.	Karnataka	1	Belgaum	301	7	Karwar	307
		2	Bengaluru	302	8	Mangalore	308
		3	Bijapur	303	9	Mysore	309
		4	Davangere	304	10	Raichur	310
		5	Gulbarga	305	11	Shimoga	311
		6	Hubli	306	12	Udupi	312

EXAMINATION CITIES WITH CODE NUMBER

S.No	State	No	City / Town	City / District Code	No	City / Town	City / District Code
4	Andhra Pradesh	1	Anantapur	401	5	Tirupati	405
		2	Hyderabad	402	6	Vijayawada	406
		3	Kakinada	403	7	Vishakhapatnam	407
		4	Nellore	404			
5	Assam	1	Guwahati	411			
6	Bihar	1	Patna	416			
7	Chandigarh	1	Chandigarh	421			
8	Chhattisgarh	1	Raipur	426			
9	Delhi	1	New Delhi	431			
10	Goa	1	Panaji	436			
11	Gujarat	1	Ahmedabad	441	2	Vadodara	442
12	Jharkand	1	Ranchi	447			
13	Madhya Pradesh	1	Bhopal	451			
14	Maharashtra	1	Mumbai	456	2	Nagpur	457
		3	Pune	458			
15	Orissa	1	Bhubaneshwar	461			
16	Rajasthan	1	Jaipur	471	2	Kota	472
17	Uttaranchal	1	Dehra Dun	476			
18	Uttarpradesh	1	Lucknow	481	2	Varanasi	482
19	West Bengal	1	Kolkatta	487			
20	Andaman & Nicobar	1	Port Blair	491			

ANNEXURE - IV

SYLLABUS FOR ENTRANCE EXAMINATION

(See university website for model questions)

MATHEMATICS

a. Complex Numbers

Complex numbers in the form *a+ib* and their representation in a plane. Argand diagram. Algebra of complex numbers, Modulus and argument (or amplitude) of a complex number, square root of a complex number. Cube roots of unity, triangle inequality.

b. Linear Inequalities

Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line.

c. Permutations and Combinations

Fundamental principle of counting; Permutation as an arrangement and combination as selection, Meaning of P(n,r)and C(n,r).Simple applications.

d. Binomial Theorem

Binomial theorem for positive integral indices. Pascal's triangle.

General and middle terms in binomial expansions, simple applications.

e. Sequences and Series

Arithmetic, Geometric and Harmonic progressions. Insertion of Arithmetic, Geometric and Harmonic means between two given numbers. Relation between A.M., G.M. and H.M. Special series $\sum n$, $\sum n^2$, $\sum n^3$. Arithmetico-Geometric Series, Exponential and Logarithmic Series.

f. Matrices and Determinants

Determinants and matrices of order two and three, Properties of determinants. Evaluation of determinants. Addition and multiplication of matrices, adjoint and inverse of matrix. Solution of simultaneous linear equa–tions using determinants .

g. Quadratic Equations

Quadratic equations in real and complex number system and their solutions. Relation between roots and co-efficients, Nature of roots, formation of quadratic equations with given roots;

h. Relations and Functions

Definition of a relation. Domain, codomain and range of a relation. Function as special kind of relation and their domain, codomain and range. Real valued function of a real variable. Constant, identity, polynomial, rational. Modulus, signum and greatest integer functions. Sum. Difference, product and quotient of func–tions. Types of relations: refelexive, symmetric, transitive and equivalence relations. One to one and onto functions.Composite functions, inverse of a function.

i. Trigonometry

Trigonometrical identities and equations. Inverse trigonometric functions and their properties. Properties of triangles, including centroid, incentre, circumcentre and orthocentre, solution of triangles. Heights and distances.

j. Measures of Central Tendency and Dispersion

Calculation of Mean, Median and Mode of grouped and ungrouped data. Calculation of standard deviation, variance and mean deviation for grouped and ungrouped data.

k. Probability

Probability of an event, addition and multiplication theorems of probability and their applications; Conditional probability; Bayes' theorem, Probability distribution of a random variate; Binomial and Poisson distributions and their properties.

l. Differential Calculus

Polynomials, rational, trigonometric, logarithmic and exponential functions. Graphs of simple functions. Limits, Continuity; differentiation of the sum, difference, product and quotient of two functions. Differentiation of trigonometric, inverse trigonometric, logarithmic, exponential, composite and implicit functions; derivatives of order upto two. Applications of derivatives: Maxima and Minima of functions one variable, tangents and normals, Rolle's and Langrage's Mean Value Theorems.

m. Integral Calculus

Integral as an anti derivative. Fundamental integrals involving algebraic, trigonometric, exponential and logarithmic functions. Integration by substitution, by parts and by partial fractions. Integration using trigonometric identities. Integral as a limit of sum. Properties of definite integrals. Evaluation of definite integral; Determining areas of the regions bounded by simple curves.

n. Differential Equations

Ordinary differential equations, their order and degree. Formation of differential equation. Solutions of differential equations by the method of separation of variables. Solution of Homogeneous and linear differential equations, and those of type $d^2y/dx^2 = f(x)$.

o. Two Dimensional Geometry

Review of Cartesian system of rectangular co-ordinates in a plane, distance formula, area of triangle, condition for the collinearity of three points, slope of a line, parallel and perpendicular lines, intercepts of a line on the coordinate axes.

p. The straight line and pair of straight lines

Various forms of equations of a line, intersection of lines, angles between two lines, conditions for concurrence of three lines, distance of a point from a line .Equations of internal and external bisectors of angles between two lines, equation of family lines passing through the point of intersection of two lines, homogeneous equation of second degree in x and y, angle between pair of lines through the origin, combined equation of the bisectors of the angles between a pair of lines, condition for the general second degree equation to represent a pair of lines, point of intersections and angles between two lines.

q. Circles and Family of Circles

Standard form of equation of a circle, general form of the equation of a circle, its radius and centre, equation of a circle in the parametric form, equation of a circle when the end points of a diameter are given, points of intersection of a line and circle with the centre at the origin and condition for a line to be tangent, equation of a family of circles through the intersection of two circles, condition for two intersecting circles to be orthogonal.

r. Conic Sections

Sections of cones, equations of conic sections (parabola, ellipse and hyperbola) in standard forms, condi–tions for $y = mx+c$ to be a tangent and point(s) of tangency.

s. Vector Algebra

Vector and scalars, addition of two vectors, components of a vector in two dimensions and three dimen–sional space, scalar and vector products, scalar and vector triple product. Application of vectors to plane geometry.

t. Three Dimensional Geometry

Distance between two points. Direction cosines of a line joining two points. Cartesian and vector equation of a line. Coplanar and skew lines. Shortest distance between two lines.Cartesian and vector equation of a plane. Angle between (i) two lines (ii) two planes (iii) a line and a plane Distance of a point from a plane.

PHYSICS

a. UNITS AND DIMENSIONS

Units for measurement, system of units, SI, fundamental and derived units, dimensions and their applica-tions.

b. MECHANICS

Motion in straight line, uniform and non-uniform motion, uniformly accelerated motion and its applications Scalars and Vectors, and their properties; resolution of vectors, scalar and vector products; uniform circular motion and its applications, projectile motion Newton's Laws of motion; conservation of linear momentum and its applications, laws of friction, Concept of work, energy and power; energy-kinetic and potential; conservation of energy; different forms of energy. Elastic collisions in one and two dimensions.

Center of mass of a many particle system; center of mass of a rigid body, rotational motion and torque. Angular momentum and its conservation. Moments of inertia, parallel and perpendicular axes theorem, moment of inertia for a thin rod, ring, disc and sphere.

Gravitation: Acceleration due to gravity and its properties. One and two dimensional motion under gravity. Universal law of gravitation, planetary motion, Kepler's laws, artificial satellite-geostationary satellite, gravi-tational potential energy near the surface of earth, gravitational potential and escape velocity.

c. SOLIDS AND FLUIDS

Solids: Elastic properties, Hooke's law, Young's modulus, bulk modulus, modulus of rigidity.Liquids: Cohe-sion and adhesion; surface energy and surface tension; flow of fluids, Bernoulli's theorem and its applica-tions; viscosity, Stoke's Law, terminal velocity.

(i) OSCILLATIONS AND WAVES

Periodic motion, simple harmonic motion and its equation, oscillations of a spring and simple pendulum.

Wave motion, properties of waves, longitudinal and transverse waves, superposition of waves, Progressive and standing waves. Free and forced oscillations, resonance, vibration of strings and air columns, beats, Doppler effect.

(ii) HEAT AND THERMODYNAMICS

Thermal expansion of solids, liquids and gases and their specific heats, relationship between Cp and Cv for gases, first and second laws of thermodynamics , Carnot cycle, efficiency of heat engines. Transference of heat; thermal conductivity; black body radiations, Kirchoff's law, Wein's Law, Stefan's law of radiation and Newton's law of cooling.

(iii) ELECTROSTATICS,CURRENT ELECTRICITY AND MAGNETOSTATICS

Coloumb's law, dielectric constant, electric field, lines of force, field due to dipole , electric flux, Gauss's theorem and its applications; electric potential, potential due to a point charge; conductors and insulators, distribution of charge on conductors; capacitance, parallel plate capacitor, combination of capacitors, energy stored in a capacitor.

Electric current : Cells-primary and secondary, grouping of cells; resistance and specific resistivity and its temperature dependence. Ohm's law, Kirchoff's Law. Series and parallel circuits; Wheatstone's Bridge and potentiometer with their applications.

Heating effects of current, electric power, concept of thermoelectricity-Seebeck effect and thermocouple; chemical effect of current- Faraday's laws of electrolysis.

Magnetic effects: Oersted's experiment, Biot Savert's law, magnetic field due to straight wire, circular loop and solenoid, force on a moving charge in a uniform magnetic field(Lorentz force),forces and torques on a current carrying conductor in a magnetic field, force between current carrying wires, moving coil galvanometer and conversion to ammeter and voltmeter.

Magnetostatics: Bar magnet, magnetic field, lines of force, torque on a bar magnet in a magnetic field, earth's magnetic field; para, dia and ferro magnetism, magnetic induction, magnetic susceptibility.

d. ELECTROMAGNETIC INDUCTION AND ELECTROMAGNETIC WAVES

Induced e.m.f., Faraday's law, Lenz's law, self and mutual inductance; alternating currents, impedance and reactance, power in ac; circuits with L C and R series combination, resonant circuits, transformer and AC generator.

Electromagnetic waves and their characteristics; electromagnetic spectrum from gamma to radio waves.

e. RAY AND WAVE OPTICS

Reflection and refraction of light at plane and curved surfaces, total internal reflection; optical fiber; deviation and dispersion of light by a prism; lens formula, magnification and resolving power; microscope and telescope, Wave nature of light, interference, Young's double experiment; thin films, Newton's rings. Diffraction: diffraction due to a single slit; diffraction grating, polarization and applications.

f. MODERN PHYSICS

Dual nature of Radiation - De Broglie relation, photoelectric effect, Alpha particle scattering experiment, atomic masses, size of the nucleus; radioactivity, alpha, beta and gamma particles/rays. Radioactive decay law, half life and mean life of radio active nuclei; Nuclear binding energy, mass energy relationship, nuclear fission and nuclear fusion.

Energy bands in solids, conductors, insulators and semiconductors, pn junction, diode, diode as a rectifier, transistor action, transistor as an amplifier.

CHEMISTRY

a. BASIC CONCEPTS

Atomic and molecular masses, mole concept and molar mass, percentage composition, empirical and molecular formula, chemical reactions, stoichiometry and calculations based on stoichiometry.

b. ATOMIC STRUCTURE, CHEMICAL BONDING AND MOLECULAR STRUCTURE

Bohr's model, de Broglie's and Heisenberg's principles, Quantum mechanical model, Orbital concept and

filling up of electrons; Bond formation and bond parameters; Valence bond and molecular orbital theory; VSEPR theory; Hybridization involving s, p and d orbital; Hydrogen bond.

c. EQUILIBRIUM AND THERMODYNAMICS

Law of chemical equilibrium and Equilibrium Constant; Homogeneous and Heterogeneous equilibria; LeChatelier's principle, Ionic equilibrium; Acids, Bases, Salts and Buffers; Solubility product;

Thermodynamic state; Enthalpy, Entropy and Gibb's free energy; Heats of reactions; Spontaneous and non-spontaneous processes.

d. ELECTROCHEMISTRY, KINETICS AND SURFACE CHEMISTRY

Specific, molar and equivalent conductance of weak and strong electrolytes; Kohlrausch law; Electrochemi cal cells and Nernst equation; batteries, fuel cells and corrosion

Rate of a reaction and factors affecting the rate: Rate constant, order and molecularity, collision theory.

Physisorption and chemisorptions; colloids and emulsions; homogeneous and heterogeneous catalysis.

e. SOLID STATE AND SOLUTIONS

Molecular, ionic, covalent and metallic solids; amorphous and crystalline solids; crystal lattices and Unit cells; packing efficiency and imperfections; electrical and magnetic properties. Normality, molarity and molality of solutions, vapour pressure of liquid solutions; ideal and non-ideal solutions, colligative properties; abnormality.

f. HYDROGEN

Position of hydrogen in the periodic table; dihydrogen and hydrides- preparation and properties; water, hydrogen peroxide and heavy water; hydrogen as a fuel.

g. S - BLOCK ELEMENTS

Group 1 and 2 Alkali and Alkaline earth elements; general characteristics of compounds of the elements; anomalous behavior of the first element; preparation and properties of compounds like sodium and calcium carbonates, sodium chloride, sodium hydroxide; biological importance of sodium, potassium and calcium.

h. P - BLOCK ELEMENTS

Groups 13 to 17 elements: General aspects like electronic configuration, occurrence, oxidation states, trends in physical and chemical properties of all the families of elements; compounds of boron like borax, boron hydrides and allotropes of carbon; compounds of nitrogen and phosphorus, oxygen and sulphur; oxides and oxyacids of halogens.

i. D, F - BLOCK ELEMENTS

Electronic configuration and general characteristics of transition metals; ionization enthalpy, ionic radii, oxidations states and magnetic properties; interstitial compounds and alloy formation; lanthanides and actinoids and their applications.

j. CO-ORDINATION COMPOUNDS

Werner's theory and IUPAC nomenclature of coordination compounds; coordination number and isomer–ism; Bonding in coordination compounds and metal carbonyls and stability; application in analytical meth–ods, extraction of metals and biological systems.

k. BASIC ORGANIC CHEMISTRY AND TECHNIQUES

Tetravalence of carbon and shapes or organic compounds; electronic displacement in a covalent bond – inductive and electromeric effects, resonance and hyperconjugation; hemolytic and heterolytic cleavage of covalent bond – free radicals, carbocations, carbanions electrophiles and nucleophiles; methods of purifi–cation of organic compounds; qualitative and quantitative analysis.

l. HYDROCARBONS, HALOALKANES AND HALOARENES

Alkanes, alkenes,alkynes and aromatic hydrocarbons; IUPAC nomenclature, isomerism; conformation of ethane, geometric isomerism, general methods of preparation and properties, free radical mechanism of halogenations, Markownikoff's addition and peroxide effect; benzene, resonance and aromaticity, substitution reactions; Nature of C-X bond in haloalkanes and haloarenes; mechanism of substitution reactions.

m. ALCOHOLS, PHENOLS AND ETHERS

IUPAC nomenclature, general methods of preparation, physical and chemical properties, identification of primary, secondary and tertiary alcohols, mechanism of dehydration; electrophillic substitution reactions.

n. ALDEHYDES, KETONES, CARBOXYLIC ACIDS AND AMINES

Nomenclature, general methods of preparation, physical and chemical properties of the group members; nucleophilic addition and its mechanism; reactivity of alpha hydrogen in aldehydes; mono and dicarboxylic acids-preparation and reactions; identification of primary, secondary and tertiary amines; preparation and reactions of diazonium salts and their importance in synthesis.

o. POLYMERS AND BIOMOLECULES

Natural and synthetic polymers, methods of polymerization, copolymerization, molecular weight of poly - mers, Polymers of commercial importance,Carbohydrates: mono, oligo and polysaccharides; Proteins Alpha amino acid, peptide linkage and polypeptides: Enzymes, Vitamins and Nucleic acids (DNA and RNA)

p. ENVIRONMENTAL CHEMISTRY

Air, water and soil pollution, chemical reactions in atmosphere, acid rain; ozone and its depletion; green house effect and global warming; pollution control.

q. CHEMISTRY IN EVERYDAY LIFE

Drugs and their interaction; chemicals as analgesics, tranquilizers, antiseptics, antibiotics, antacids and antihistamines; Chemicals in food- preservatives, artificial sweetening agents; cleansing agents – soaps and detergents.

ANNEXURE - V

INSTRUCTIONS ON QUESTION PAPER

AMRITA VISHWA VIDYAPEETHAM

(University established u/s 3 of UGC Act 1956)

Amrita Entrance Examination – Engineering 2012

PHYSICS, CHEMISTRY & MATHEMATICS

Question booklet **Version Code**	**B**	Question booklet no.	**208298**	Time: 3 hrs
Number of pages	**20**	Number of questions	**120**	Max. Marks : 360
Registration number				
Name of the candidate				
Signature of the candidate				

INSTRUCTIONS TO THE CANDIDATES

GENERAL

1. Any malpractice or attempt to commit malpractice in the examination hall will lead to disqualification of the candidate.
2. Candidates are not allowed to carry any textual material, printed or written bits of papers, Mathematical and Physical Tables, electronic gadgets like calculator, cell phone, etc. into the examination hall.
3. Candidates shall possess the University Hall Ticket which should be produced on demand.
4. Candidates shall occupy the respective seats bearing their registration numbers on time.
5. Candidates shall sign the attendance sheet available with the invigilator.
6. **Candidates are not permitted to leave the hall before the end of the examination.**
7. **Candidates are required to handover the ANSWER SHEET and the QUESTION BOOKLET to the invigilator before leaving the hall.**
8. ***After submitting the answer sheet, candidates shall affix their left thumb impression on the attendance sheet.***

QUESTION BOOKLET

9. **DO NOT OPEN THIS SEALED BOOKLET UNTIL THE INVIGILATOR ANNOUNCES TO DO SO.**
10. **Before opening the Question Booklet,** write the Registration Number, Name and Signature using ball pen in the space provided at the top of this page.
11. **Immediately after opening the booklet,** examine whether it contains all the 120 questions in serial order and 20 pages as mentioned at the top of this page. In case of unprinted, torn or missing pages, the matter should be reported to the invigilator immediately.
12. Rough work may be done on the space provided in this booklet.

(Continued on the last page)

(Continued from the front page)

OMR ANSWER SHEET

13. Use the OMR answer sheet carefully; no spare sheet will be given.
14. Do not fold or make any stray mark on the OMR sheet.
15. Use HB pencil / Ball point pen (Blue / Black) for shading the bubbles and Ball pen for writing.
16. In the OMR answer sheet, make the following entries.
    a. Write the Registration number, Question Booklet Number and Question Booklet Version Code.
    b. Fill the ovals corresponding to the Registration Number, Question Booklet Number and Question Booklet Version Code.
    c. Write your signature and name.
17. Rough work should not be done on the answer sheet.

ANSWERING AND EVALUATION

18. For each question, four answers are suggested of which only one is correct / most appropriate. Mark the correct / most appropriate answer by darkening the corresponding bubble using HB pencil / Ball point pen (Blue / Black).
19. In case the candidate wishes to change the choice already shaded using HB pencil, he/she may erase the marking completely and thereafter shade the alternative bubble.
20. If more than one bubble is darkened against a question, it will be treated as an incorrect answer.
21. For each correct answer, three marks will be awarded.
22. **For each incorrect answer, one mark will be deducted from the total score.**
23. If any smudge is left on the OMR sheet, evaluation will become imperfect.

ANNEXURE - VI

SAMPLE APPLICATION FORM

AMRITA ENTRANCE EXAMINATION - ENGINEERING 2013

APPLICATION FORM

PLEASE READ CAREFULLY THE INSTRUCTIONS IN THE INFORMATION HAND BOOK (SECTION 6 & 7) BEFORE FILLING THIS APPLICATION FORM

1. NAME OF THE CANDIDATE AS IN 12th CLASS CERTIFICATE (IN CAPITAL LETTERS)

BARCODE

APPLICATION NUMBER 76004

Use Only HB PENCIL to fill the appropriate bubbles

Use Black Ball Point Pen for all writings
Incomplete applications will be rejected

WRONG METHOD

RIGHT METHOD

FOLD ALONG THIS LINE

2. SOCIAL STATUS

- SC
- ST
- OBC
- OTHERS

3. CANDIDATE'S GENDER

- MALE
- FEMALE

4. DATE OF BIRTH

Day | Month | Year

5. STATE FROM WHICH YOU COMPLETED 12th CLASS / DIPLOMA

6. CITY CODE OF EXAM CENTRE OPTED

I Choice | II Choice

7. PIN CODE FOR COMMUNICATION ADDRESS AS IN ITEM 8

8. FULL NAME AND COMPLETE POSTAL ADDRESS OF THE CANDIDATE (IN CAPITAL LETTERS)
(Use Black Ball point pen only)

APPLICATION NUMBER 76004

Name :

S/o, D/o :

Address :

State : PIN :

STD Code with phone No.: Mobile :

Email ID :

9. PHOTOGRAPH

PASTE FIRMLY YOUR RECENT COLOUR PHOTOGRAPH OF GOOD QUALITY (SIZE 3.5 x 4.5 Cm)

DO NOT STAPLE OR PIN.
DO NOT ATTEST.

10. SIGNATURE OF THE CANDIDATE
(within the box using Black ball point pen only)

11. NAME OF PARENT / GUARDIAN (IN CAPITAL LETTERS)

FOLD ALONG LINE

12. RELATIONSHIP OF PERSON IN ITEM NO 11 WITH THE CANDIDATE

- FATHER ☐
- MOTHER ☐
- GUARDIAN ☐

13. NATIONALITY

- INDIAN ☐
- FOREIGN ☐

14. YOUR QUALIFYING EXAMINATION

- 12 th CLASS OR EQUIVALENT ☐
- 3 / 4 YEAR DIPLOMA ☐

15. [illegible] QUALIFYING [illegible]

- CBSE ☐
- ICSE ☐
- STATE BOARD ☐
- OTHERS ☐
- TECH EDN ☐

16. TELEPHONE NUMBER WITH STD CODE

17. DECLARATION BY CANDIDATE AND PARENT / GUARDIAN

I hereby declare that all particulars stated by me in this application are true and correct. If any information furnished by me is found to be false or distorted, or if any information is found to be suppressed to secure admission, I understand that, I will be denied admission, and if already admitted, my admission / degree acquired is liable to be cancelled without any claim or consideration. I have read the Information Hand Book before filling the application form. I promise to abide by the rules and norms of discipline of the University, if I am admitted.

Place : .....

Date : .....

18. Signature of the Candidate with Name

19. Signature of the Parent / Guardian with Name

22. FAQ ON B.TECH. ADMISSION 2013

Qn.- 1. What is the procedure to get admission for B.Tech. in Amrita University ?

Ans: A candidate should have a pass in the final examination of 10+2 (class XII) or its equivalent securing 60% or above marks in Mathematics, 55% or above separately in Physics and Chemistry with an aggregate of 60% in the three subjects **(or)** a three year Diploma in engineering with minimum 60% marks, awarded by any State Board of Technical Education and also should appear for Amrita Entrance Exam to be eligible to get admission based on his / her rank in the entrance exam. Age restrictions apply.

Qn.– 2. Can a candidate who has scored high rank in any other national or state entrance exam get direct admission in Amrita?

Ans : No. Only candidates who appeared for Amrita Entrance exam 2013 are eligible for admission.

Qn.– 3. Is Amrita Vishwa Vidyapeetham affiliated to any University for purpose of recognition of degrees?

Ans : No. Amrita Vishwa Vidyapeetham is a University established under sec 3 of UGC Act 1956. Being a University, the question of affiliation to another university does not arise. Since the university is recognized by UGC and Ministry of HRD, Govt. of India, the courses offered by Amrita University are recognized. The University is accredited by National Assessment and Accreditation Council (NAAC) with 'A' Grade in 2009. The HRD Ministry's Panel Report(2010) on Deemed Universities has graded Amrita in Category 'A'.

Qn.– 4. How is Amrita B.Tech.Programme designed?

Ans : Choice Based credit system with continuous evaluation is followed in semester pattern.

Qn.– 5. Is campus transfer possible after joining the B.Tech. programme in anyone of the Amrita campuses?

Ans : No. There is no provision for campus transfer.

Qn.– 6. How many students are presently studying in the University?

Ans: At present around 15,000 students are studying in the five campuses of the University.

Qn.– 7. What is faculty student ratio for the engineering programmes?

Ans : 1 : 12

Qn.– 8. Where should I attend the counselling for B.Tech. admission?

Ans : You can attend the counselling in any one of the three campuses at your convenience and opt any branch in any one of the three campuses according to the availability of seat at the time of your counselling.

Qn.– 9. At the time of counselling, is the presence of candidate compulsory?

Ans : Yes, the candidate along with his parent or guardian shall be present at the counselling desk.

Qn.- 10. At the time of counselling, is it enough if I produce Photostat copies of my certificates?

Ans : Sorry. Original certificates are to be produced (see section 20 in this Handbook.)

Qn.– 11. If I do not receive call letter in time to attend the counselling, what can I do?

Ans : The rank list and counselling schedule will be published in the university website. Candidates who do not get the intimation letter shall check the website and if their rank is included for counselling, they may attend the counselling with all their original certificates as specified. Moreover they may contact the university office in this regard before the date of counselling.

Qn.– 12. In XII class exam my average marks for Physics, Chemistry and Mathematics is above 60% but in Physics the score is less than 55%. Can I attend the counselling?

Ans : No. One should have passed XII class exam scoring 60% minimum in Mathematics and 55% and above separately in Physics and Chemistry with an average of 60% in the three subjects to attend the counselling.

Qn.– 13. After admission, if one wants to withdraw from the programme, what about the refund of fees?

Ans : Refer to section 21 in this handbook. Refund will be given as per the regulations of the Govt.of India.

23. PREVENTIVE MEASURES AGAINST RAGGING

As per the orders of the Central and State Governments and the directives of the Hon'ble Supreme Court of India, precautionary steps are taken to preempt ragging in the campus, including the hostels. The students are warned that they would be expelled from the institution with a reference to their offence in their Transfer Certificates and if required, they would be handed over to the local police. Posters are issued warning them of the far-reaching consequences of indulging in ragging. Undertakings from the senior students are taken, countersigned by their parents that they would not indulge in such activities. Counselling is given to the second year students by the Dean - Engineering and the Prof.of Students Welfare.

Departmental anti-ragging committees with staff and students as members are formed to prevent, to find out and punish the wrong-doers. The non teaching staff working in most of the service outlets and utilities and in the sports grounds in the campus and hostels are asked to be on the lookout and inform of any sign of ragging or teasing.

Phone numbers of the Chief Warden and the Prof.of Students Welfare are given in the Calendar and in the handbooks for the affected students to report in confidence.

Studying in Amma's institutions, the students have an ingrained sense of dignity, and respect for fellow students and this is responsible for the incident - free student life in our campuses.

24. IMPORTANT NOTES

Please go through the following general information:

1. Please ensure that you are using the correct application form intended for Amrita Entrance Examination – Engineering 2013.

2. NRI candidates shall give their address in India for correspondence.

3. Ensure that you fulfill all the eligibility criteria given in section 3 of the Information Handbook.

4. Submit only one application form.

5. Your application must be complete in all respects. Incomplete applications are liable to be rejected.

6. Application forms will be machine processed. The machine will read only fully darkened bubbles. Please see section 6 & 7 of the Information Handbook before filling the application form.

7. Options once selected in the application cannot be changed at a later date.

8. Completed application form shall be sent only to the address given in section 8 of the Information Handbook.

9. For Fee structure visit University website: www.amrita.edu

10. The application fee is not refundable.

11. The courts at Coimbatore shall have the jurisdiction to settle and decide all matters and disputes related to Amrita Entrance Examination - Engineering 2013.

25. CHECK LIST

Before mailing the application, please ensure that

❑. your name is written as per the 12th class records.

❑. full & correct mailing address is written. (NRI's shall give their address in India)

❑. your contact phone number & Email ID are written correctly.

❑. you have used black ball point pen to write and HB pencil to darken the bubbles.

❑. you have mentioned correctly the city code of the examination centre.

❑. you have mentioned correctly the State code from where you have completed your 12th class.

❑. you have affixed a recent passport size colour photograph of good quality in the space provided.

❑. your photograph is not attested.

❑. you have signed in the space provided on the first page and second page of the Application Form.

❑. your parent / guardian has signed the declaration.

❑. you have not used any pin or staple on the application.

❑. you have retained a photocopy of the filled-in application form and DD for future reference.

❑. your application is to be despatched in the pre-addressed cover intended for sending the same and is addressed to;

The Admission Co-ordinator
Amrita School of Engineering
Amrita Vishwa Vidyapeetham University
(P.O) Amritanagar, Ettimadai, Coimbatore – 641 112.
Tamilnadu.
Phone: 0422 – 2685169 / 170

26. Dates to Remember

Issue of Application forms begins	**-**	**20 - 12 - 2012 (Thursday)**
Last date of issue of application forms	**-**	**18 - 03 - 2013 (Monday)**
Last date for receiving completed applications (OMR & On-line)	**-**	**03 - 04 - 2013 (Wednesday)**
Date of Entrance Examination	**-**	**21 - 04 - 2013 (Sunday - FN)**

FEE STRUCTURE FOR B.TECH. DEGREE PROGRAMMES - 2013 ADMISSIONS

SL.NO.	HEAD	TERM	FEES (In Rupees)		
			AMRITAPURI	BANGALORE	COIMBATORE
01	Tuition Fee	Annual	1,15,000	1,15,000	1,25,000
02	Additional charges	„	26,000	28,500	35,500
03	One time charges	at the time of admission	11,500	11,500	11,500
	Total		**1,52,500**	**1,55,000**	**1,72,000**

Scholarship Scheme: Norms

1. Scholarship will be provided to15% of the top ranking candidates, who passed the qualifying examination from Kerala, Karnataka and Tamil Nadu and admitted in the respective campuses.

2. Scholarship amount of **Rs.50,000/- per annum** will be waived from the tuition fees.

3. Award of scholarship will be governed by the rules framed for the purpose.

HOSTEL FEES

SL.NO.	HEAD	TERM	FEES (In Rupees)		
			AMRITAPURI	BANGALORE	COIMBATORE
01	Room Rent	Annual	Girls 8,000 Boys 12,000	16,000	15,000
02	Mess Charges	„	27,000	34,000	36,000
03	Establishment Fees	„	8,000	9,000	12,000
04	Caution Deposit	One Time	5,000	5,000	5,000