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**DO NOT OPEN TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO**

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Test Booklet Series

**A**

T.B.C. : P-TSB-HBU

# TEST BOOKLET

## GENERALABILITY TEST

Time Allowed : Two Hours

Maximum Marks : 200

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### INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. Please note that it is the candidate's responsibility to encode and fill in the Roll number and Test Booklet Series Code A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR answer sheet. Any omission/discrepancy will render the answer sheet liable for rejection.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. DO NOT write *anything else* on the Test Booklet.
4. This Test Booklet contains **120 items** (questions), 60 in PART - A and 60 in PART - B. Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose *ONLY ONE* response for each item.
5. You have to mark all your responses *ONLY* on the separate Answer Sheet provided. See directions in the Answer Sheet.
6. All items carry equal marks.
7. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator *only the Answer Sheet*. You are permitted to take away with you the Test Booklet.
9. Sheet for rough work are appended in the Test Booklet at the end.
10. **Penalty for wrong answers :**  
**THERE WILL BE PENALTY FOR WRONG ANSWER MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.**
  - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one-third of the marks assigned to that question will be deducted as penalty.
  - (ii) If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answer happens to be correct and there will be same penalty as above to that question.
  - (iii) If a question is left blank, i.e., no answer is give by the candidate, there will be no penalty for that questions.

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## PART - A

**Directions (For the 10 items which follow) :**

(i) In this Section, a number of sentences are given. The sentences are underlined in three separate parts and each one is labelled (a), (b) and (c). Read each sentence to find out whether there is an error in any underlined part. No sentence has more than one error. When you find an error in any of the underlined parts (a), (b) or (c), indicate your responses on the Answer Sheet at the appropriate space. You may feel that there is no error in a sentence. In that case, (d) will signify a 'No error' response.

(ii) Errors may be in grammar, word usage or idioms. There may be a word missing or there may be a word which should be removed.

(iii) You are not required to correct the error. You are required only to indicate your response on the Answer Sheet.

1. None of the applicants have turned up for the interview on time. No error.  
(a) (b) (c) (d)
2. Her mother did not reply when I asked her why was she weeping. No error.  
(a) (b) (c) (d)
3. The oxygen content of Mars is not sufficient enough to support life as we know, it. No error.  
(a) (b) (c) (d)
4. He told his friends that each of them should be able to carry out the orders oneself. No error.  
(a) (b) (c) (d)
5. If the police would have arrived on time the riot would not have occurred. No error.  
(a) (b) (c) (d)
6. When I asked the driver to come with me to the temple he had been reluctant. No error.  
(a) (b) (c) (d)
7. Children often quarrel on petty issues. No error.  
(a) (b) (c) (d)
8. One day young Edison at a risk of his own life rescued the infant son of a station-master  
(a) (b)  
from almost under the wheels of a goods train. No error.  
(c) (d)
9. Taking down my shoes I would wade into the muddy water up to my knees  
(a) (b)  
and pluck the water-lilies floating on the surface. No error.  
(c) (d)
10. I think every one of these men are incompetent. No error.  
(a) (b) (c) (d)

**Directions (For the 10 items which follow) :**

Each of the following items consists of a sentence followed by four words or group of words. Select the *synonym* of the word (occurring in the sentence in capital letters) as per the context.

11. PROXIMITY to the court house makes an office building more valuable.  
(a) difference (b) similarity (c) nearness (d) usefulness

12. STRIVE for excellence.  
 (a) cooperate with others (b) be patient  
 (c) pay well (d) make efforts
13. It is very discourteous to INTRUDE during someone's conversation.  
 (a) find fault (b) disagree (c) interrupt (d) leave quickly
14. If the client INSISTS upon being stubborn, I will also have to be tough.  
 (a) disagrees (b) consists (c) persists (d) declines
15. It is difficult to deal with a STUBBORN child.  
 (a) obstinate (b) indignant (c) abject (d) depressed
16. The entrance examination will begin PRECISELY at eight-thirty.  
 (a) usually (b) occasionally (c) definitely (d) exactly
17. The Delhi airport authorities have CONFISCATED a large consignment of illegal weapons.  
 (a) seized (b) discarded (c) concealed (d) destroyed
18. Drink only TEPID liquids.  
 (a) lukewarm (b) slightly cool (c) very hot (d) very cold
19. Picasso's paintings can inspire a PENSIVE mood.  
 (a) cheerful (b) thoughtful (c) depressed (d) confused
20. Due to extreme pressure underwater divers are often SLUGGISH.  
 (a) hurt (b) careful (c) worried (d) slow

**Directions (For the 10 items which follow):**

Each of the following items consists of a sentence followed by four words or group of words. Select the antonym of the word (occurring in the sentence in capital letters) as per the context.

21. The students' council was **DISSOLVED** as the university closed for vacation  
 (a) rejected (b) continued (c) allowed (d) disbanded
22. The older ways of thrashing wheat have become **OBSOLETE**  
 (a) extinct (b) outdated (c) fashionable (d) modern
23. My family **DISSUADED** me from giving up the lucrative assignment  
 (a) persuaded (b) prevented (c) disagreed (d) agreed
24. Not taking medicines regularly turned out to be **HAZARDOUS** for him  
 (a) grouchy (b) grotesque (c) safe (d) perilous
25. His success is a **TRIBUTE** to his mother's dedication for her children.  
 (a) criticism (b) honour (c) praise (d) admiration
26. The developed countries should stop selling **LETHAL** weapons.  
 (a) injurious (b) innocent (c) dangerous (d) harmless
27. Use, of narcotic drugs is **PROHIBITED** in the hostel rooms  
 (a) banned (b) impeded (c) permitted (d) restricted
28. My son is gifted with an extraordinarily **INQUISITIVE** mind.  
 (a) dull (b) unattractive (c) capable (d) curious

29. Jobs are difficult to get as the economy is in great **RECESSION**.  
 (a) inflation (b) deflation (c) jubilant (d) boom
30. The boy **RECOILED** at the sight of the snake.  
 (a) shrank (b) moved forward (c) pushed backwards (d) expanded

**Directions: Supply suitable auxiliaries/idioms/phrases for the next ten (10) items listed below :**

31. Trespassers\_\_\_\_\_ be prosecuted  
 (a) shall (b) might (c) ought (d) could
32. It\_\_\_\_\_rain, but I don't think it will.  
 (a) shall (b) might (c) ought (d) could
33. You\_\_\_\_\_to get better marks this year if you want to achieve some position.  
 (a) ought (b) might (c) could (d) shall
34. How\_\_\_\_\_ he do such a thing which was not expected of him ?  
 (a) shall. (b) might (c) ought (d) could
35. Long\_\_\_\_\_she live to enjoy her good fortune  
 (a) might (b) may (c) should (d) can
36. She is such an egoist that she usually indulges herself in\_\_\_\_\_  
 (a) tell tales (b) throwing mud at (c) throwing a fit (d) tall talk
37. Examinations are fast approaching please do not\_\_\_\_\_  
 (a) spend your time (b) while away your time  
 (c) wipe off your time (d) make the most of your time
38. She has \_\_\_\_\_her mother.  
 (a) taken after (b) taken off (c) taken up (d) taken to
39. The delay of the project was not my fault. I am not the kind of person to\_\_\_\_\_.  
 (a) let the grass grow under my feet (b) look back on  
 (c) look down upon (d) lie in wait
40. She is so beautiful that she \_\_\_\_\_among all her friends.  
 (a) stands up to (b)stands out  
 (c) straightens out (d) sticks out for

**Directions: For the next ten (10) items. insert suitable prepositions**

41. I have been thinking\_\_\_\_\_your proposal.  
 (a) of (b) about (c) on (d) None of the above
42. I know she thinks a lot\_\_\_\_\_your work, so you will probably get the work  
 (a) of (b) about (c) on (d) None of the above
43. A special committee is being set up to enquire\_\_\_\_\_the rioting at the person.  
 (a) out (b) into (c) of (d) None of the above
44. They heard\_\_\_\_\_the Department of Transport that their house was on the route of a proposed new road.  
 (a) from (b) about (c) of (d) None of the above

45. When I pointed my camera \_\_\_\_\_ the baby, she began to cry  
 (a) towards (b) at (c) on (d) None of the above
46. Despite the growth of tourism. there is still plenty to wonder \_\_\_\_\_ on the beautiful island of Bali.  
 (a) at (b) about (c) for (d) None of the above
47. Hersuspiciour behaviour points\_\_\_\_\_ her guilt.  
 (a) to (b) at (c) out (d) None of the above
48. I smiled back when she smiled\_\_\_\_\_ me.  
 (a) towards (b) at (c) on (d) None of the above
49. We are looking the govern- ment to help us.  
 (a) to (b) at (c) for (d) None of the above
50. She is a lot better now. Nice of you to \_\_\_\_\_enquire her.  
 (a) about (b) of (c) after (d) None of the above

**Directions: Each of the following six (06) items consists of a stem foUowedby four words. One of the four words can be used as a substitute for the stem.**

51. A place where public records are kept and preserved.  
 (a) Exhibition (b) Museum (c) Archive (d) Auditorium
52. An institution where young offenders are sent to be trained as good citizens.  
 (a) Juvenile-jail (b) Reformatory (c) Orphanage (d) Brewery
53. A book giving information about every branch of knowledge  
 (a) Cartography (b) Catalogue (c) Dictionary (d) Encyclopaedia
54. One who is an expert in judging the quality of food, wines etc  
 (a) Expert (b) Veterenarian (c) Connoisseur (d) Examiner
55. One who meddles or interferences in the affairs of other people  
 (a) Interferer (b) Busybody (c) Crude (d) Soothsayer
56. One who is learning a trade.  
 (a) Amateur (b) Coach (c) Apprentice (d) Leamer

**Directions : For the next four (04) items that follow :**

Read the following passage and answer the questions that follow:

Wealth should not be an end in itself but only a means of satisfying one's as well as others' needs. It should be a means of creating a happy and humane society. Riches can be profitably spent in removing the wants of the poor and the needy, by providing them with food and clothing, by establishing hospitals for the sick, shelters for children who have none to look after them, and old age homes to provide comfort. and company to the growing number of old and helpless people. Wealth can also be put to public use by establishing trusts to open up more and more educational institutions, to finance research work for promotion of science, health care and agriculture. When used only as a means of creating more and more luxuries and procuring objects of sensual gratification, it leads to corruption and sin. Even wealth used only to generate more wealth loses its intrinsic worth. We should not forget that wealth came into existence to facilitate the fulfilment of human needs and development of society.

57. By saying 'Wealth should not be an end in itself' the writer means that  
 (a) One should not stop creating wealth  
 (b) Creating more and more wealth should not be one's object  
 (c) Wealth should not be used for personal use  
 (d) Wealth is exhausted if not used in different tasks
58. In 'Riches can be profitably spent' the word 'profitably' in this context means  
 (a) Riches can be used in manifold ways  
 (b) Riches can be used for financial gains  
 (c) Riches can be used in beneficial way  
 (d) Riches can be used to acquire fame
59. The central idea of the passage is  
 (a) Wealth should not be used for personal comfort but for comfort of others  
 (b) Personal use of wealth leads to sin  
 (c) Wealth should be judiciously used for personal as well as social and humanitarian purposes  
 (d) Wealth should be used for others only after fulfilling one's needs
60. The intrinsic worth of wealth lies in  
 (a) its use for charitable purposes  
 (b) its use for enjoyment of life  
 (c) its use for fulfilment of human needs and development of society  
 (d) its use for self-aggrandizement

## PART - B

61. Which of the following are the reasons I behind the Constitutional design of *Rajya Sabha*?  
 1. Mature input in legislative and constituent process from more experienced persons.  
 2. Tending some degree of continuity to the parliamentary work in view of the fact that the *Rajya Sabha* is a continuous chamber.  
 3. Unequal weightage to votes in *Rajya Sabha* since there is equal number of seats given to all states.  
 Select the correct answer using the code given below :  
 (a) 1, 2 and 3                      (b) 1 and 2 only                      (c) 2 and 3 only                      (d) 1 and 3 only
62. Which of the following fundamental transformations of India's social order have significant implications for Indian democracy?  
 1. The increasing political mobilization of India's lower castes and minorities.  
 2. Rising literacy rates.  
 3. Widening exposure of the Indian electorate to mass media  
 Select the correct answer using the code given below :  
 (a) 1,2 and 3                      (b) 1 and 2 only                      (c) 2 and 3 only                      (d) 1 only
63. Since the year 2000. India's democracy is becoming more representative and. perhaps more accountable to its people. Which of the following facts about India's electoral system substantiate this statement?  
 1. The voter turn-out in the national elections has remained around 60% and the poorest 1/4th of Indian Population have registered a higher voter turn-out compared to the richest 1/4th.  
 2. The Indian electorate has grown from 671 million people in the year 2904 to 714 million in the year 2009.  
 3. In the electoral verdict of 2009 for the first time in 25 years a coalition of parties that had completed its full term had come back to power at the centre.  
 4. The Right to Education the National Rural Employment Guarantee Act and the Right to Information have all been passed in the last decade.  
 Select the correct answer using the code given below :  
 (a) 1 and 3 only                      (b) 2 and 4                      (c) 1 and 4 only                      (d) 1, 3 and 4



64. Which of the following ideas. is/are closely associated with the idea of secularism in India?  
 1. Equality of citizenship and nondiscrimination.  
 2. Non-involvement of State in religious matters including personal law.  
 3. Freedom of belief and worship.  
 4. Equal and free access to educational institutions till 10th standard or its equivalent.  
 Select the correct answer using the code given below:  
 (a) 1, 2 and 3 (b) 1 and 3 only (c) 2, 3 and 4 (d) 1 only
65. Consider the following statements about Mahatma Gandhi :  
 1. Non-Violence to him, is both an instrument of action as well as a personal creed.  
 2. He was opposed to violence, and class wars, and resisted mass political action.  
 3. He was a nationalist, therefore he believed in a centralized polity.  
 4. He rejected the practice of Untouchability and called for the abolition of Varnashramadhanna  
 Which of the above can be implied from a reading of Gandhian thought?  
 (a) 1 only (b) 1, 2 and 3 only (c) 1 and 4 only (d) 1, 2, 3 and 4
66. Which of the following paradigmatic shift is not seen in Indian democracy as yet?  
 (a) From a quasi-federal parliamentary model of government to a competitive federal parliamentary model  
 (b) From a centralized state system to an open government system with a strong civil society  
 (c) From a protectionist economic policy regime to a market-driven policy regime  
 (d) From a semi-literate casteist society to a near universal educated class society
67. Who among the following were the five founder leaders of Non-Alignment Movement?  
 1. Mountbatten  
 2. Jawaharlal Nehru  
 3. John F. Kennedy  
 4. Sukarno  
 5. Kwame Nkrumah  
 6. Churchill  
 7. Josip Broz Tito  
 8. Gamal Abdel Nasser  
 Select the correct answer using the code given below:  
 (a) 1, 2, 3, 4, 5 (b) 1, 3, 6, 7, 8 (c) 2, 4, 5, 6, 8 (d) 2, 4, 5, 7, 8
68. Which of the following is/are correct about Indian politics ?  
 1. Since the year 1989, there is a trend towards bi-coalitional pattern at the Centre.  
 2. Regional diversities have come to be "better represented in national coalitional regimes."  
 Select the correct answer using the code given below:  
 (a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2
69. Which of the following movements were led by Mahatma Gandhi ?  
 1. Champaran Movement  
 2. Salt Satyagraha  
 3. Quit India Movement  
 4. Tebhaga Movement  
 Select the correct answer using the code given below:  
 (a) 2 and 3 only (b) 2, 3 and 4 (c) 1 and 4 only (d) 1, 2 and 3
70. Which one among the following sectors in India was allocated highest resources during the 11th five year plan ?  
 (a) Rural development (b) Irrigation and flood control  
 (c) Energy (d) Transport
71. In the short run, marginal cost  
 (a) equals marginal variable cost  
 (b) is independent of fixed cost  
 (c) equals marginal variable cost and is independent of fixed cost  
 (d) equals the first derivative of the "total cost"

72. The consumer price index is designed to measure the degree to which  
(a) incomes are distributed among the poor and rich over time  
(b) The cost of purchasing a bundle of consumer goods has changed with time  
(c) consumption patterns have changed with time because of higher prices  
(d) consumer prices have risen, relative to wages
73. Which one among the following best explains 'Money' ?  
(a) It is a medium for producing capital goods  
(b) It is a means for redistributing wealth among people  
(c) It is a common denominator for measuring value  
(d) It is a mechanism for resource allocation
74. The trade-off between inflation and unemployment is known as  
(a) cost-push inflation  
(b) demand-pull inflation  
(c) Phillips curve approach to inflation  
(d) Stagflation
75. Which one among the following agencies is known as 'soft credit window' of the World Bank?  
(a) The International Finance Corporation  
(b) The International Bank for Reconstruction and Development  
(c) The International Development Association  
(d) The Multilateral Investment Guarantee Agency
76. Which one among the following food crops is *not* categorized under 'millets' ?  
(a) Ragi (b) Wheat (c) Bajra (d) Jowar
77. The DPT vaccine, a mixture of three vaccines, is used to immunize against three medical conditions/diseases. These medical conditions/ diseases are -  
(a) Diphtheria, Pneumonia, Tuberculosis (b) Diarrhoea, Pertussis, Tetanus  
(c) Diarrhoea, Pertussis, Tuberculosis (d) Diphtheria, Pertussis, Tetanus
78. Consider the following statements with regard to chromosome of bacteria :  
1. Bacteria always have a single chromosome.  
2. Bacterial chromosome is circular  
Which of the statements given above is/are correct ?  
(a) 1 only (b) 2 only (c) Both 1 and 2 (d) neither 1 nor 2
79. In an accident, a person's brain was injured due to which he could not regulate body temperature, hunger and water balance. Which one among the following, parts of his brain was affected?  
(a) Cerebellum (b) Medulla oblongata (c) Hypothalamus (d) Corpus callosum
80. Cockroach, Housefly and Mosquito are insects because they have  
(a) chitinous exoskeleton and body divided into head and cephalothoraxes  
(b) six legs, two pairs of antennal and body divided into head, thorax and abdomen  
(c) segmented body, six legs and body divided into head, thorax and abdomen  
(d) three pairs of legs, one pair of antennal and flame cells
81. 'Hinny' is derived from  
(a) male donkey and mare (b) lion and tigress  
(c) tiger and lioness (d) stallion and female donkey
82. The vitamin which is water soluble and generally excreted in urine is  
(a) vitamin A (b) vitamin C (c) vitamin D (d) vitamin E
83. Which one among the following is not a constituent in automobile emission ?



- (a) Carbon monoxide  
(b) Hydrogen peroxide  
(c) Benzene  
(d) Nitrogen dioxide

84. What was the hallmark of the Buddhist council held at patiliputra under Ashoka's patronage ?  
1. Sutta Pitaka, a collection of Buddha's sermons on matters of doctrine and ethics was compiled.  
2. A schism took place and Buddhism broke into Sathaviradins and Mahasanghikas.  
3. Expulsion of heretics and the establishment of the Sthaviravada school as orthodox.  
4. The last section, Kathavatthu was added to the Pali scripture, Abhidhamma Pitaka.

Select the correct answer using the code given below :

- (a) 1, 3 and 4                      (b) 2 only                      (c) 1 and 2                      (d) 3 and 4 only

85. Which of the following statements is/are correct ?  
1. Sravana Belagola is famous for its Jaina heritage and history.  
2. Ajanta is famous for Jaina sculptures and paintings.  
3. Mamallapuram is famous for its "rock-cut monolithic Buddhist temples.

Select the correct answer using the code given below :

- (a) 1 only                      (b) 2 only                      (c) 1 and 2                      (d) 2 and 3

86. Which one among the following is/are true about the Santhal uprising of 1855-56 ?  
1. The Santhals were determined to expel the British Government.  
2. The Santhals believed in the coming of *Satyayug*, the reign of truth and true justice.  
3. The Santhals did not get the support of the non-tribals, such as the *Gwalas* (milkmen) and *Lohars* (blacksmiths).

Select the correct answer using the code given below :

- (a) 1, 2 and 3                      (b) 1 only                      (c) 2 and 3 only                      (d) 1 and 2 only

87. Which one among the following was *not* an outcome of the Battle of Plassey in 1757 ?  
(a) The Mughals were cut to size  
(b) The Battle paved the way for British rule in India  
(c) The Battle enabled the British to use the revenue of Bengal to raise a strong army  
(d) The Battle raised the British to the status of a major contender for the Indian empire.

88. Which among the following is *not* a contribution of *Kushanas* to Indian culture  
(a) Turban and Trousers  
(b) Use of reins and saddles in cavalry  
(c) Devnagari script  
(d) Use of curtain in theatre

89. Which of the following *is/are* unique to the Mathura school of art ?  
1. Combination of Hellenistic, west Asiatic and native elements.  
2. Earliest, entirely Indian representation of the Buddha  
3. Use of spotted red sandstone as the material for making images, and statues.  
Select the correct answer using the code given below :

- (a) 1 and 2                      (b) 2 and 3                      (c) 2 only                      (d) 3 only

90. The significance of Ashoka's administration lay in  
(a) the majestically sculptured Ashokan pillars and rock inscriptions  
(b) the spread of Buddhism in India  
(c) infusing the idea of social responsibility through the concept of *Dham*  
(d) his concern in making Buddhism the state religion

The following 04 (Four) items consist of two statements, statement I and statement II. You are to examine these two statements carefully and select the answers to these items using the code given below :

**Code :**

- (a) Both the statements are individually true and statement II is the correct explanation of statement I
- (b) Both the statements are individually true but statement II is *not* the correct explanation of statement I
- (c) Statement I is true but statement II is false
- (d) Statement I is false but statement II is true

91. Statement I : According to Buddhist teaching, salvation lay in achieving *nirvana*, or freedom from the cycle of rebirth  
Statement II : The doctrine of *karma* was essential to the Buddhist system of salvation
92. Statement I : The 'Quit India' movement (1942) was perhaps - the most powerful mass movement- faced by the British in India.  
Statement II : The mass upsurge in the 'Quit India' movement made the British realize the inevitability of Indian independence.
93. Statement I : The *Brahmo Samaj* was a socio-reformist organisation of the nineteenth century Bengal.  
Statement II : The nineteenth century India witnessed an up- surge in socio-reformist movement
94. Statement I : Plantation farming has mostly been practised in humid tropics.  
Statement II : The soil of humid tropics is fertile.
95. Which one among the following countries is not a member of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) ?  
(a) Bangladesh                      (b) Malaysia                      (c) Nepal                      (d) Myanmar
96. In India Regur soil is found in  
(a) Deccan Plateau                      (b) Indo-Gangetic plain  
(c) Himalayan region                      (d) Coastal plains
97. Arrange the following Himalayan vegetation type in the descending order on the basis of the altitude beginning from the highest  
1. Coniferous forests  
2. Alpine vegetation  
3. Tropical forests  
4. Evergreen forests  
(a) 1 - 2 - 4 - 3                      (b) 1 - 2 - 3 - 4                      (c) 2 - 1 - 4 - 3                      (d) 2 - 1 - 3 - 4
98. In hill areas soil erosion can be minimized by which of the following methods?  
1. Terracing  
2. Contour ploughing  
3. Strip farming  
4. Planting perennial species  
Select . the correct answer using the code given below :  
(a) 1, 2 and 3 only                      (b) 3 and 4 only                      (c) 1, 2 and 4 only                      (d) 1, 2, 3 and 4 only
99. In the vicinity of iron ore mining areas which one amongst the following elements would be high in ground water?  
(a) Calcium                      (b) Nitrate                      (c) Fluoride                      (d) Arsenic
100. Which one among the following is the correct sequence of basins of major rivers of India beginning from south to north?  
1. Tapi (Tapti)  
2. Godavari  
3. Ganga  
4. Kaveri  
Select the correct answer. using the code given below :  
(a) 2 - 1 - 4 - 3                      (b) 4 - 1 - 2 - 3                      (c) 2 - 4 - 1 - 3                      (d) 4 - 2 - 1 - 3

101. Match List I with List II and select the correct answer using the code given below the Lists:

**List I**  
(Hill/Range)

**List II**  
(Location in map)

- A. Mahadeo hills  
B. Vindhya range  
C. Maikal range  
D. Satpura range



|     | A | B | C | D |
|-----|---|---|---|---|
| (a) | 4 | 3 | 1 | 2 |
| (b) | 4 | 1 | 3 | 2 |
| (c) | 2 | 3 | 1 | 4 |
| (d) | 2 | 1 | 3 | 4 |

102. Drastic change in water level, large scale fluctuations of oil flow from oil wells and discharging of radioactive Radon gas' are associated with which one among the following natural hazards?  
(a) Volcanic eruption  
(b) Earthquakes  
(c) Tsunamis  
(d) Drought
103. Which one among the following is the common characteristic amongst *Khambhat*, *Ankleshwar*, *Kalol* (*Panch Mahal* district and *Mehsana* of Gujarat)?  
(a) All are port towns  
(b) They are major on shore oil and gas fields  
(c) They are petroleum refining centres  
(d) They are connected to Mumbai High by Gas pipeline
104. Industrial and technological advancement has brought about a rapid exploration of forest resources. Which one among the following is not the impact of above phenomenon?  
(a) Declining wild life  
(b) Increase in ground water level  
(c) Declining biodiversity  
(d) Increasing surface water flow
105. Which one among the following is a case of social exclusion ?  
(a) An ethnic group demanding exclusive rights over a particular territory to the exclusion of other groups living in that territory  
(b) An individual or a group being cut-off from enjoying opportunities open to the majority of the population  
(c) Homeless people prevented from sleeping on the pavement  
(d) An individual or a group voluntarily excluding itself from participating in a social festival
106. The phrase 'tribe-caste continuum' in the context of the Indian Society refers to the process  
(a) by which a tribe imitates the different features of life of a caste group  
(b) which explains the social continuities between tribes and castes  
(c) by which various tribes and castes continue to change their social status  
(d) which explains the economic interaction between tribes and castes
107. Which one among the following is true of a matrilineal' society ?  
(a) Women are always in control of property  
(b) Marriage between mother's brother's daughter and sister's son is all established custom.  
(c) Only inheritance is passed in the mother's' line of descent but men are still on control of property  
(d) Not only inheritance is passed in the mother's hne of descent but she is also in control of property

108. Which one among the following is a characteristic of Indian caste system ?  
 (a) This - worldliness (b) Equality (c) Hierarchy (d) Individualism
109. Which of the following indicate adult socialization?  
 1. An orphan boy adopted. by a childless couple.  
 2. A doctor transferred from a rural hospital to an urban hospital.  
 3. A girl who joins monastery to become a nun.  
 4. A cricketer who is selected to play the test match.  
 Select the correct answer using the code given below :  
 (a) 1, 2, and 3 (b) 3 and 4 (c) 1 and 3 only (d) 2 and 3 only
110. Which one among the following tribes practices fraternal polyandry?  
 (a) The Bhill (b) The Toda (c) The Munda (d) The Oraon
111. Consider the following statements :  
 1. If there is inadequate rainfall, the vegetable prices will increase.  
 2. The price of vegetables has increased.  
 Which of the following, in your opinion, logically follows from these statements?  
 (a) Definitely there has been inadequate rainfall  
 (b) Increase of price of vegetables is not caused by inadequate rainfall alone, so nothing conclusive follows  
 (c) No counterexample can be shown  
 (d) There has not been inadequate rainfall
112. There are 20 pieces of sweets to be given out to a group of 20 persons. However, the rule of distribution is that a man gets exactly 3 sweets, a woman gets 2 sweets and an infant gets half a piece of sweet. Which of the following gives the correct combination of m women and infant satisfying all the conditions?  
 (a) 6 infants, 4 women and 4 men (b) 7 women, 4 men and 9 infants  
 (c) 1 man, 16 infants and 4 women (d) 5 women, 1 man and 14 infants
113. B is shorter than T. U is taller than B. T is shorter than S. Given these, which of the following can be inferred logically?  
 (a) U is taller than T (b) U is shorter than T  
 (c) B is shorter than S (d) S is taller than U
114. If A takes the bus, he will be late. Which one among the following is logically implied ?  
 (a) If A takes the metro, he will not be late  
 (b) If A is not late, he must have not taken the bus  
 (c) If A does not take the bus, he will not be late  
 (d) If A is late, he must have taken the bus
115. Which one among the following may be correctly inferred if the statement 'Some patients with hypertension can be effectively treated with Amlodipine' is true ?  
 (a) It is false that no patients with hypertension can be effectively treated with Amlodipine  
 (b) It is false that all patients with hypertension can be effectively treated with Amlodipine  
 (c) It is true that all patients with hypertension can be effectively treated with Amlodipine  
 (d) It is false that some patients with hypertension can be effectively treated with Amlodipine

The next three (03) questions are based on the following : A pulley fixed to the ceiling carries a thread with bodies of masses  $m_1$  and  $m_2$  ( $m_1 > m_2$ ) attached to its ends. (Neglect the mass of pulley and thread. Friction is negligibly small)

116. What is the acceleration of the centre of inertia of the system?  
 (a)  $\frac{(m_1 - m_2)^2}{(m_1 + m_2)^2}$  (b)  $\frac{(m_1 + m_2)^2 g}{(m_1 - m_2)^2}$  (c)  $\frac{(m_1 - m_2) g}{(m_1 + m_2)^2}$  (d)  $\frac{(m_1 + m_2) g}{(m_1 - m_2)}$

117. What is the tension in the thread?

- (a)  $\frac{(m_1 m_2)g}{(m_1 + m_2)}$       (b)  $\frac{(2m_1 m_2)g}{(m_1 + m_2)}$       (c)  $\frac{(m_1 - m_2)g}{(m_1 + m_2)}$       (d)  $\frac{(m_1 - m_2)2g}{(m_1 + m_2)}$

118. Consider the following statements -

1. The acceleration of mass  $m_1$  is equal and opposite to that of mass  $m_2$
2. The acceleration of centre of mass of the system is less than that of mass  $m_1$ .

Which of the statements given above is/are correct?

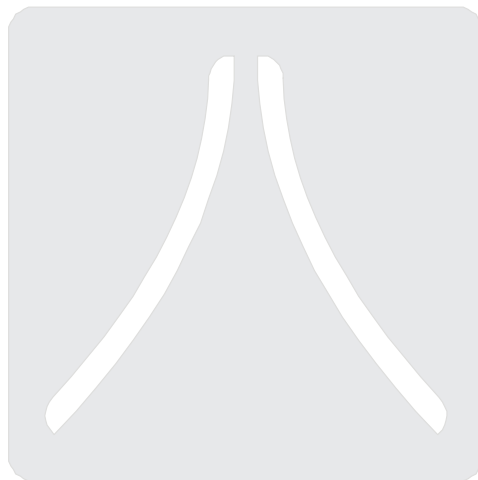
- (a) 1 only      (b) 2 only      (c) both 1 and 2      (d) Neither 1 nor 2

119. Two masses  $m_1$  and  $m_2$  are attached to the end

- (a)  $\frac{(m_1 + m_2)g}{2(m_1 + m_2)}$       (b)  $\frac{2(m_1 + m_2)g}{(m_1 + m_2)}$       (c)  $\frac{(m_1 m_2)g}{(m_1 + m_2)}$       (d)  $\frac{4(m_1 m_2)g}{(m_1 + m_2)}$

120. The proper inflation of tyres saves fuel because

- (a) normal reaction decreases  
(b) normal reaction increases  
(c) sliding contact with road decreases  
(d) sliding contact with road increases



# Resonance

Where you will be in resonance with IIT-JEE