# SAMPLE QUESTIONS
## FOR CEMBA/CEMPA ADMISSION TEST

**Full Marks: 200**                                                **Time: 2:30 (Two and half) hrs.**

**INSTRUCTIONS FOR THE CANDIDATES**

1. The candidates will use the test booklet in the examination hall to answer the questions, which are in the booklet under the MCQ system. The distribution of marks under different sections is given in the following table:

| Test | Sections | No. of Questions | Marks |
|------|----------|------------------|-------|
| Test I | General Awareness | 30 | 30 |
| Test II | English Language | 50 | 50 |
| Test III | Quantitative Techniques | 50 | 50 |
| Test IV | Reasoning | 70 | 70 |
| | **TOTAL** | **200** | **200** |

The candidates will answer all questions in 2:30 (Two and half) hours. Since the questions are of objective types, answer should not be written in words or sentences.

2. **Use black ink ball pen only.** Fill up the circle to indicate your Examination Centre (Dhaka/Chittagong). Write your Roll Number in four digits as mentioned in your admit card and blacken the corresponding circles completely. Write your Name in the space provided as per your admit card. Ensure that the OMR Sheet is duly signed by the invigilator in the examination hall.

3. Do not make any stray marks on the OMR Sheet.

4. Each question is followed by FOUR probable answers that are numbered 1, 2, 3 & 4. Select only one answer to each question considered by you as the correct answer and blackens the corresponding circle completely.

5. No credit will be given if more than one answer is given for one question.

6. There is no negative marking for wrong answers.

7. No calculator, slide-ruler, foot ruler, notebook or written notes, etc. will be allowed inside the examination hall.

8. Any candidate found copying, receiving or giving assistance in the examination will be disqualified.

9. Invigilators will supply the test booklet and the OMR Sheet to you. At the end of the examination, both the test booklet and the OMR Sheet must be handed over to the invigilator.

10. All rough work can be done on the test booklet only and not on any other paper.

11. Cell-phone, composer, organizer must be switched off during examination time.

12. The university reserves the right to cancel the scores of any candidate who impersonates or uses malpractice.

# FOR ADMISSION TEST OF CEMBA/CEMPA PROGRAMME

## Test I: General Awareness

1. A genetic disorder characterised by poor blood circulation and abnormal haemoglobin molecules is better known as:
   (1) Sickle-Cell Anaemia          (2) Haemophilia
   (3) Phenyl Ketonuria             (4) Huntington's Chorea

2. The average speed of the earth in orbit is:
   (1) 66600 miles/hour             (2) 67600 miles/hour
   (3) 68600 miles/hour             (4) 69600 miles/hour

3. Which of the following is the largest island?
   (1) New Guinea                   (2) Borneo
   (3) Greenland                    (4) Malagasy

4. Which of the following is not among the six main organs of UN?
   (1) WTO                          (2) Trusteeship Council
   (3) International Court of Justice   (4) UN Secretariat

5. 'GATT' stands for:
   (1) General Agreement on Trade and Tariffs
   (2) General Agreement on Trafficking and Trade
   (3) General Agreement on Trade and Trafficking
   (4) General Agreement on Tariffs and Trade

6. Which of the following was the first U.S. space shuttle?
   (1) Challenger      (2) Discovery      (3) Columbia    (4) Atlantis

7. The steam engine (condenser) was invented by:
   (1) David Bushnell (USA)         (2) M. Lammond (France)
   (3) James Watt (Britain)         (4) W.L. Judson (USA)

8. The 'North Pole' on the earth was discovered by:
   (1) Abel Janszoon Tasman (1642)  (2) Vasco-de-gama (1498)
   (3) Robert Peary (1909)          (4) Wilhelm Roentgen (1895)

9. 'SAARC' stands for:
   (1) South Asian Association of Regional Countries
   (2) South Asian Association for Regional Cooperation
   (3) South Asian Association for Research and Cultural Cooperation
   (4) South Asian Agricultural Research Cooperation

10. The first spacecraft to land on Mars was:
    (1) Columbia                    (2) Shenzhou
    (3) Pathfinder                  (4) Lunokhod-1

11. The headquarters of world's biggest and the richest European Union (EU) block is located in:
    (1) Brussels                    (2) Paris
    (3) London                      (4) Vienna

12. Which of the following instruments is used to measure blood pressure?
    (1) Stroboscope                 (2) Stethoscope
    (3) Spherometer                 (4) Sphygmomanometer

13. Slow clotting of blood (as a result bleeding does not stop easily) is caused by the deficiency of which of the following Vitamins:
    (1) A          (2) E          (3) K   (4) C

14. Sound travels fastest in:
    (1) Air          (2) Water          (3) Vacuum      (4) Steel

15. The famous book 'Gulliver's Travels' has been written by:
    (1) Lord Tennyson               (2) Walter Scott
    (3) Jonathan Swift              (4) D.H. Lawrence

16. EPABX stands for:
    (1) Electronic Private Automatic Branch Exchange
    (2) Electronic Personal Automatic Bunch Exchange
    (3) Electronic Popular Automatic Branch Exchange
    (4) Electronic Private Auto Branching Exchange
17. Theory of Heredity (Genetics) was propounded by:
    (1) Sigmund Freud                    (2) Max Planc
    (3) Gregor Mendel                    (4) Wright Brothers
18. Burma and Ceylon got their independence, during the tenure of which of the following Prime Ministers of Britain?
    (1) Clement Richard Attlee           (2) Winston Churchil
    (3) Margaret Thatcher                (4) Both 1 and 2 above
19. America was discovered by Christopher Columbus in the year:
    (1) 1490                             (2) 1492
    (3) 1494                             (4) 1496
20. Which of the following canals/water bodies links the Mediterranean and Red Sea and separates Africa from Asia?
    (1) Panama Canal                     (2) English Channel
    (3) Indira Gandhi Canal              (4) Suez Canal
21. The Yellowstone National Park, a reserve established by the side of Yellowstone river (that has more than 3000 geysers and hot springs), is situated in:
    (1) America                          (2) Asia
    (3) Australia                        (4) Europe
22. Corsica, an island in the Mediterranean Sea and St. Helena, an island in the South Atlantic, are associated with birth and death respectively of which of the following personalities:
    (1) Abraham Lincoln                  (2) Hitler
    (3) Napolean                         (4) Karl Marx
23. Which of the following is the largest lake in the world?
    (1) Caspian Sea                      (2) Baikal
    (3) Superior Lake                    (4) Mt. Isa
24. The first and only woman to have climbed Mount Everest twice is:
    (1) Valentina Tereshkova             (2) Santosh Yadav
    (3) Alison Hargreaves                (4) Ann Bancroft
25. Which of the following countries is known as the land of a Thousand Lakes?
    (1) Finland                          (2) Bhutan
    (3) Thailand                         (4) Norway
26. 'SHORA' is the name of which of the following country's Parliament:
    (1) Bangladesh                       (2) Iran
    (3) Afghanistan                      (4) Uzbekistan
27. Which of the following countries was earlier known as 'Abyssinia'?
    (1) Belize                           (2) Lesotho
    (3) Botswana                         (4) Ethiopia
28. The geographical surname of which of the following places is 'Queen of the Adriatic'?
    (1) New York                         (2) Venice (Italy)
    (3) Stockholm                        (4) Chicago
29. Which of the following countries has the same (identical) name for its currency?
    (1) Zambia                           (2) Zaire
    (3) Zimbabwe                         (4) Yemen
30. The first Test Tube baby Louise Brown was born in 1978 in:
    (1) UK                               (2) USA
    (3) France                           (4) Canada

**Directions**: Read the following passages carefully, and answer the questions that follow according to the contents of the passage.

## Passage – I

The orthodox view of work which has been accepted by most managers and industrial psychologists is a simple one, and fifty years of industrial psychology and more than a century of managerial practice have been founded upon it. Regarding the nature of work, the orthodox view accepts the Old Testament belief that physical labour is a curse imposed on man as a punishment for his sins and that the sensible man labours solely in order to keep himself and his family alive, or, if he is fortunate, in order to make a sufficient surplus to enable him to do the things he really likes. Regarding the conditions of work, it is assumed that improving the conditions of the job will cause the worker's natural dislike of it to be somewhat mitigated, and, in addition, will keep him physically healthy and therefore more efficient in the mechanistic sense. Finally, regarding the motivation of work, the carrot and stick hypothesis asserts that the main positive incentive is money, the main negative one fear of unemployment. Of recent years, these views have been modified in many ways. It is conceded that some people – for example, managers, professional men, and craftsmen – may like to work, that improving the working environment may have a wider connotation than was formerly thought, and that incentives may also include 'welfare' and social activities. Full employment has forcibly caused those who run industry to reconsider the carrot and stick theory. But, nevertheless, the basic postulates survive almost unchanged. It is still supposed that most people do not work willingly, that money is the most powerful incentive, and that the job of the industrial psychologist is to determine the influence on the worker of such environmental factors as temperature, noise, humidity, good or bad illumination, and so on. Time and motion study, by eliminating inefficient movements, will make the worker a more effective machine. In point of fact, much of what goes by the name of industrial psychology would be more appropriately called industrial physiology. Now modern research has shown that these views are incorrect, and it is most

important that they should be recognized to be so. As has already been pointed out, they are entirely incorrect when we observe the nature of work against a historical and cultural background and they were nevermore than partly true even at the height of the paleotechnic stage. In this passage we shall give reasons for supposing that the following statements are nearer the truth, and should, therefore, form the basis of any new approach

to industrial problems:
(1)    Work is an essential part of a man's life since it is that aspect of his life which gives him status and binds him to society. Ordinarily men and women like their work, and at most periods of history always have done so. When they do not like it, the fault lies in the psychological and social conditions of the job rather than in the worker. Furthermore, work is a social activity.
(2)    The morale of the worker (i.e. whether or not he works willingly) has no direct relationship whatsoever to the material conditions of the job. Investigations into temperature, lighting, time and motion study, noise, and humidity have not the slightest bearing on morale, although they may have a bearing on physical health and comfort.
(3)    There are many incentives, of which under normal conditions, money is one of the least important. Unemployment is a powerful negative incentive, precisely because (1) is true. That is to say, unemployment is feared because it cuts man off from his society.

It is a futile task to attempt to define exactly what we mean by the team 'work'. If the definition is in terms of pay, the hard-working housewife is excluded; if it is in terms of pleasure or choice, it can easily be shown that for some people work and play are virtually the same thing. Dr. May Smith believes that the final end of work is to live, and that therefore those who exchange their activities of body or mind for the means to live are working. She then goes on to ask:

Can one imagine a person with a fortune continuing in routine repetitive work, or in the majority of industrial processes? The answer to this question, which is clearly intended to be a rhetorical one, is

that one can. In a group of London factories known to the writer three men have at different times won large sums of money from football pools and, after a short period of leisure, have returned to their ordinary work – two on 'routine repetitive work' and one as a fitter. Yet the money they had received was quite sufficient, if suitably invested, to enable them to live comfortably for the rest of their lives. I know another firm which retires its women workers at the age of fifty-five on a quite generous pension. Many of these women may be seen standing by the factory gates each evening waiting for their friends to come out. They continue to attend any social events run by the firm, and when part-time work is available during the busy season, are always ready and willing to apply. The most cynical individual who interviewed these women could not get the impression that they are primarily concerned about money (in fact, in addition to their pension, nearly all of them are doing other part-time jobs and have quite enough money). It is clear that, so far as they are concerned, the factory is a social centre. If one begins with the assumption that the sole incentive to work is money or fear, then such behaviour is incomprehensible. The belief that money is the sole, or even the most important of several, motive for work, is so foolish that anyone who seriously holds this opinion is thereby rendered incapable of understanding either industry or the industrial worker. Fundamentally, work is a social activity with the two main functions of producing the goods required by society and binding the individual into the pattern of interrelationship from which society is built up.

31. The author believes that industrial psychology might well be termed industrial physiology because
    (1) it focuses on the physical environment rather than the worker's psychology.
    (2) it concentrates on the worker's functions and not his mental make-up.
    (3) it deals more with the quantity of work than its quality.
    (4) it ignores the mental attitude of the worker.
32. According to the orthodox view of work
    (1) work is necessarily hard and disagreeable and there is no point in reducing the burden.
    (2) a surplus is not required for a worker.
    (3) improving the conditions of work will increase efficiency.
    (4) all of the above.
33. According to the author the essential functions of work include
    (1) keeping people active and involved.
    (2) producing the goods required by society.
    (3) involving the workers in societal relationships.
    (4) building a social centre away from home.
34. According to the passage, when people do not like their jobs, the problem lies in
    (1) the nature of the job itself, for example, if it is a hazardous job.
    (2) the psychological and social conditions of the job.
    (3) the psychological outlook of the worker.
    (4) the social setup of the job.
35. The author says that the "most cynical individual who interviewed these women would not get the impression that they are primarily concerned about money," – this is intended to
    (1) indicate the social proclivities of women.
    (2) reiterate the low importance of money
    (3) assert the undeniable truth about the position of money in motivating workers.
    (4) show that money does not, in fact, motivate workers.
36. Which of the following theories about motivation in the orthodox theory, is disproved by the modern one?
    (1) work is an essential part of man's life.
    (2) physical labour is a curse imposed on man.
    (3) the main positive incentive is money.
    (4) ordinarily, people enjoy their work.

37. In his answer to Dr. May Smith's rhetorical question, the author shows that
    (1) Dr. Smith may have been correct.
    (2) Dr. Smith's assumption is imperfect.
    (3) Dr. Smith's assumption of the answer is invalid.
    (4) all of the above

## Passage II

Dental anthropology is the study of people from the evidence provided by their teeth. As with other areas of anthropology, 'people' is used in a broad sense to include our extinct relatives taken in the context of primates as a whole. It has been one of the less well-known sub-disciplines of anthropology, but the past two years have seen no fewer than five books published on the subject, on top of several earlier texts. Dental papers are regularly published in the main anthropological journals, and there is a thriving Dental Anthropology Association with more than 200 active members and its own journal.

Why teeth, and why the growth in interest? Teeth and bones are the main research material for anthropologists who study the fossil remains of hominids and other primates, human remains from archaeological sites, and forensic cases. There are particular advantages in studying teeth, however. They survive better in the ground because they are tougher and more heavily mineralised than bone, and they are among the most common fossils found. Teeth provide a protected environment for the survival of biochemical information and microscopic detail. Once formed in childhood, their component tissues do not turn over like bone, so the sequence of formation is preserved inside them as layered structures. Scattered teeth from one individual can be matched up by this layering pattern, and it is possible to reconstruct the timing of formation. Dental development is known from X-ray studies of living children and, as the sequence is less variable than bone development, it is the best method for estimating age at death in children's remains.

Once in the mouth, teeth are exposed to all food that enters the body, and they are used for many purposes besides eating. They were an important part of the toolkit of recent hunter-gatherers, whose lifestyle left its mark in the pattern of dental wear and the epidemiology of dental caries and periodontal disease. Strong contrasts are shown between hunter-gatherers and early agriculturalists, and with later townspeople. Teeth therefore provide some of the best evidence for reconstructing the life of a person from their fragmentary remains. It is possible to estimate age at death in adults from the state of wear in the rapidly wearing teeth of past populations, or from age-related histological changes in the roots in modern forensic cases. Tooth size varies between men and women and, because teeth are formed adult-size, this can be used to distinguish girls from boys where the skeleton is insufficiently developed to yield many clues.

Tooth size also figures in the broader scale of human evolution – dental reduction is one of the most prominent evolutionary changes over the past 30,000 years.

38. Which of the following questions is not raised by the author?
    (1) Why has there been a growing interest in dental anthropology?
    (2) Why do teeth offer advantages for the study of anthropology?
    (3) Why is dental anthropology a less-known sub-discipline of anthropology even though teeth are one of the main materials of study for anthropologists?
    (4) All of the above questions are raised by the author.
39. Which of the following can be reasonably inferred?
    (1) Children who died young had ill-formed teeth.
    (2) Teeth are not bones.
    (3) Teeth are specialised bones.
    (4) None of the above can be reasonably inferred.
40. With reference to the underlined set of words, which of the following is true?
    (1) There is a stage in the development of teeth which takes place outside the mouth.
    (2) All teeth are not found in the mouth.
    (3) Teeth are not formed at the time of birth.
    (4) Before appearing in the mouth, teeth are not exposed to all the food that enters the body, only some of it.

41. Teeth provide a protected environment for the survival of a certain variety of information and detail because
(1) teeth display amazing microscopic detail.
(2) teeth are bio-chemically stable organs, relatively speaking.
(3) of their unique layered structure.
(4) teeth do not decay, unlike bones, which do.
42. Which of the following can be inferred from the passage?
(1) Dental development cannot be known from X-ray studies of dead children.
(2) Living children are X-rayed to ascertain patterns of teeth development.
(3) Patterns of bone development are more variable than patterns of teeth structure development.
(4) Bone tissues are, biochemically speaking, more amenable to alteration than the tissues that make up teeth.
43. "Dental caries is not a periodontal disease." This statement is
(1) not inferable    (2) inferable      (3) partly untrue      (4) unverifiable
44. The second underlined word, a pronoun, denotes
(1) 'a person'                    (2) 'the life of a person'
(3) 'teeth'                       (4) unverifiable
45. The term "dental reduction", as it occurs in the last para, refers to
(1) decreasing number of teeth in humans.
(2) decreasing utility of teeth in the overall body functions of human beings.
(3) decreasing size of teeth in humans.
(4) all of the above.

**Directions for questions 46-50**: These questions consist of a capitalised word followed by four alternatives. From the alternatives choose the word that is most similar in meaning to the capitalised word.

46. CONSTRUE
(1) erect         (2) built               (3) explain          (4) reserve
47. INURED
(1) cautious      (2) accustomed      (3) questioned     (4) endless
48. NONPLUS
(1) clarify                     (2) perplex
(3) not able to add         (4) blunt
49. RAVENOUS
(1) harsh and shrill         (2) black
(3) branching out          (4) extremely hungry
50. TYRO
(1) novice                   (2) expert
(3) tropical hurricane       (4) swollen

**Directions for questions 51 to 55**: These questions consist of a capitalised word followed by four alternatives. From the given alternatives choose the word that is the nearest opposite of the capitalised word.

51. VENAL
(1) angry      (2) honest            (3) indifferent    (4) diffident
52. TRUCULENT
(1) juicy                     (2) overflowing
(3) peaceful              (4) determined
53. SQUANDER
(1) fortify     (2) depart           (3) forfeit      (4) preserve
54. HALCYON
(1) wasteful    (2) subsequent       (3) puerile     (4) martial

55. EQUIVOCAL
    (1) mistaken    (2) clear                    (3) quaint      (4) universal

**Directions for questions 56 to 60**: Each main sentence given below is followed by four alternatives. Select from among the alternatives the one that most logically complete the idea contained in the main sentence.

56. Guilt about neglecting their children makes parents _____ in the toy shop.
    (1) irresponsible                        (2) over indulge
    (3) irritable                            (4) detached

57. Many educators feel that far from being a temporary stopgap, bilingual education has proved to have definite _____ education in any one tongue.
    (1) correlations with                    (2) advantages over
    (3) connotations for                     (4) influence on

58. Excess abdominal fat puts pressure on your body by throwing it out of
    (1) gear                                 (2) line
    (3) balance                              (4) alignment

59. When the disease is in a latent stage it is almost impossible to determine its existence by _____
    (1) a thorough examination               (2) mere observation
    (3) an analysis                          (4) an astute estimation

60. Even though the previous reporters had lampooned the candidate throughout the campaign, he_____ further interviews
    (1) resisted    (2) dreaded              (3) sidestepped         (4) welcomed

**Directions for questions 61 to 65**: Find the odd item among each of the following:

61. (1) Incandescent                         (2) Luminescent
    (3) Effulgent                            (4) Imminent

62. (1) Shirts      (2) Spectacles           (3) Trousers    (4) Shoes

63. (1) Stupendous                           (2) Magnificent
    (3) Fastidious                           (4) Excellent

64. (1) Film        (2) Painting             (3) Photograph (4) Melody

65. (1) Capsule    (2) Cocoon                (3) Cavalier    (4) Container

**Directions for questions 66 to 70**: In each of the following sentences, four words or phrases have been underlined. In each case choose the one that has been used inappropriately.

66. Too large a number of workers has complained of ill treatment at the hands of the
         (1)     (2)                    (3)                            (4)
    Supervisor.

67. His college is situated on a hillock about a kilometre further up from mine.
                  (1)                    (2)         (3)       (4)

68. The report does not even remotely resemble to the original draft.
         (1)            (2)      (3)              (4)

69. Someone in the Accounts Department had left the key upon the table.
                (1)                      (2)            (3)        (4)

70. Between a servile existence and an honourable death, the brave have often
            (1)                          (2)                              (3)
    preferred the later.
              (4)

**Directions for questions 71 to 75**: Each of these questions has a sentence with highlighted word or phrases that can be correctly substituted by one of the four alternative choices that follow the sentence. Choose the alternative that can most appropriately replace the highlighted phrase without changing the sense of the sentence.

71. We are the advance forces of a tremendous army that is following us
    (1) sentinel                             (2) vanguard
    (3) rearguard                            (4) bulwark

72. Seeking to curb the costs, the group decided to meet biennially instead of annually
    - (1) twice a year
    - (2) once in two years
    - (3) by one year
    - (4) alternatively in batches
73. Although the book is out of print some copies are still in existence
    - (1) available
    - (2) expedient
    - (3) overt
    - (4) extant
74. Which animal do you think is more determined to resist authority, a pig or a mule?
    - (1) truculent
    - (2) recalcitrant
    - (3) renegade
    - (4) peremptory
75. I do not attach any token of disgrace to the fact that you were accused of this crime, the fact that you were acquitted clears you completely.
    - (1) blame
    - (2) credence
    - (3) stigma
    - (4) significance

**Directions for questions 76 to 80**: Each question below consists of a sentence with one or two blank spaces. The sentence is followed by 4 alternative words or sets of words. Choose the word/set of words which when inserted in the sentence best fit the meaning of the sentence.

76. Because she had a reputation for _____ we were surprised and pleased when she greeted us so _____
    - (1) insolence ...................... irately
    - (2) nonchalance ...................... cordially
    - (3) querulous ness ...................... affably
    - (4) arrogance ...................... disdainfully
77. If you are seeking _____ that will resolve all our problems, you are undertaking _____ task
    - (1) a precedent ...................... a salutory
    - (2) a panacea ...................... an impossible
    - (3) a direction ...................... an easy
    - (4) an abstraction ...................... fruitful
78. Because it arrives so _____ in the season, before many other birds, the robin has been called the _____ of spring
    - (1) early ...................... harbinger
    - (2) prematurely ...................... newcomer
    - (3) late ...................... hostage
    - (4) punctually ...................... autocrat
79. Over indulgence _____ character as well as physical _____
    - (1) strengthen ...................... weaknesses
    - (2) stimulates ...................... energy
    - (3) debilitates ...................... stamina
    - (4) maintains ...................... labour
80. More than one _____ whale has nudged a boat with such _____ that passengers have been knocked overboard
    - (1) lazy ...................... lethargy
    - (2) friendly ...................... enthusiasm
    - (3) vicious ...................... hostility
    - (4) angry ...................... serenity

81. $$\dfrac{409}{4+\dfrac{3}{4+\dfrac{3}{4+\dfrac{3}{4+\dfrac{3}{4}}}}} = ?$$

(1) 1                                      (2) 88

(3) $\dfrac{88}{409}$                       (4) $\dfrac{409}{88}$

82. What is the least square number which is divisible by 3, 4, 5 and 8?
   (1) 9000                                 (2) 6400
   (3) 4900                                 (4) 3600

83. A, B and C enter into partnership with a total capital of Rs. 8200. A's capital is Rs. 1000 more than B's and Rs.2000 less than C's. What is B's share of the year's profit of Rs.2460?
   (1) Rs.300                               (2) Rs.420
   (3) Rs.450                               (4) Rs.720

84. If A:B, B:C, C:D are all 2:3, A:D is as
   (1) 2:9                                  (2) 9:2
   (3) 4:27                                 (4) 8:27

85. What is the compound interest on Rs.4000 for 1 year at 5% p.a. payable half yearly?
   (1) Rs. 101.25                           (2) Rs.200
   (3) Rs.202.50                            (4) Rs.400

86. If $\dfrac{a}{b} = \dfrac{2}{3}$, what is the value of $\dfrac{a^2}{3} \div b^2$ ?

(1) $\dfrac{4}{27}$                          (2) 1

(3) $\dfrac{4}{3}$                           (4) $\dfrac{9}{4}$

87. A train travelling at 36 kmph took 10 seconds to pass a stationary man. What was the length of the train?
   (1) 45 m                                 (2) 80 m
   (3) 100 m                                (4) 110 m

88. In a 200 m race. A beats B by 20 m while in a 100 m race B beats C by 5 m. By how many metres will A beat C in kilometre race, assuming that the speed of the various competitors are the same in the various races?
   (1) 150                                  (2) 145
   (3) 130                                  (4) 125

89. A visits her friend B and then returns home by the same route. She always walks 2 km/h when going uphill, 6 km/h when going downhill and 3 km/h when on level ground. If her total walking time is 6 hours, then what is the total distance she walks in km?
   (1) 8                                    (2) 12
   (3) 18                                   (4) 24

90. X and Y were playing with their fish tank again. They had a difficult time keeping their fish alive. The fish tank is 100 cm long, 60 cm wide and 40 cm high. They tilted the tank, as shown, resting on a 60 cm edge, with the water level reaching the midpoint of the base. When they rest the tank down to a horizontal position, what is the depth of the water in cm?



(1)  10 cm        (2)  20 cm

(3)  30 cm        (4)  40 cm

91. A, F and T run at constant rates. In a race of 1000 m. A finished 200 m ahead of F and 400 m ahead of T. When F finished, how far was he ahead of T (in m).
(1) 100 m       (2) 200 m
(3) 300 m       (4) 50 m

92. If ABCD is a square and ABE is an equilateral triangle, then what is the measure of angle BFC?



(1) 85º       (2) 95º
(3) 105º       (4) 115º

93. A classroom contained an equal number of boys and girls. Eight girls left to play hockey, leaving twice as many boys as girls in the classroom. What is the original number of students present?
(1) 16       (2) 32
(3) 64       (4) 50

94. I have a broken fan belt of my car. The belt goes around 2 pulleys, whose centres are 15 cm apart and each pulley is 4 cm in diameter. How long should the belt be?
(1) 32.6       (2) 30
(3) 42.6       (4) 40

**Questions 95 to 97 are based on the data given here:**

In a school, 100 students offered Chinese as an optional subject, 70 French and 70 Thai. Of these 63 offered Chinese only, 47 French only. 12 Chinese and French only and 6 French and Thai only.

95. How many offered all three subjects?
(1) 1    (2) 2       (3) 3   (4) 5

96. How many offered Thai only?
(1) 20    (2) 24       (3) 33 (4) 39

97. How many students were there in total?
    (1) 240    (2) 212                    (3) 192        (4) 175
98. After a maths test, each of the twenty-five students in the class got a peek at the teacher's grade sheet. Each student noticed 5 A's. No student saw all the grades and no student saw his or her own grade. What is the minimum number of students who scored A on the test?
    (1) 4                                  (2) 5
    (3) 6                                  (4) 10

**Direction**: Questions 99 to 107 are based on the data shown graphically alongside. This pertains to the production of steel by three different processes in country 'X' from 1960 to 1977.



STEEL PRODUCTION IN COUNTRY 'X'
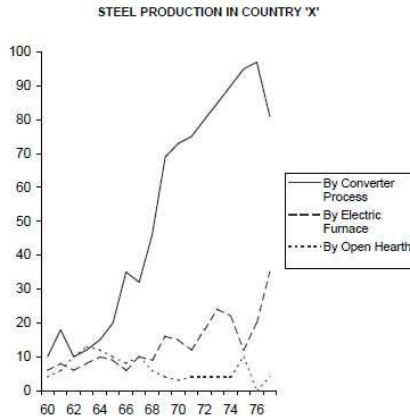
99. The quantity of steel produced in 1960 as a fraction of that produced in 1977 is:

    (1)  $\dfrac{1}{3}$                    (2)  $\dfrac{1}{4}$

    (3)  $\dfrac{1}{5}$                    (4)  $\dfrac{1}{6}$

100. What was the total quantity of steel produced in 1967 (in M. Tons.)?
     (1) 50     (2) 52                     (3) 53  (4) 54
101. The year in which there was the steepest rise in the production of steel was:
     (1) 1969    (2) 1968                  (3) 1966        (4) 1961
102. In 1969, the quantity of steel produced by the open-hearth process expressed as a percentage of that produced by the electric furnace process was:
     (1) 20     (2) 23                     (3) 25  (4) 28
103. The least rise (as compared to the previous year) in the amount of steel produced by the converter process was in:
     (1) 1963    (2) 1970                  (3) 1974        (4) 1976
104. During 1960-67, there was a paired rise or fall in the production of steel by the open hearth and electric furnace processes except in the year:
     (1) 1962    (2) 1963                  (3) 1964        (4) 1965
105. From which year onwards did the cumulative production by the converter process overtake the cumulative productions by the open hearth and electric furnace process?
     (1) 1966    (2) 1967                  (3) 1968        (4) 1965

106. During the period from 1969-75, there was a steady and uniform rise in the production by the converter process except in the year:

(1) 1971        (2) 1972        (3) 1973        (4) 1974

107. The one year in which there was an actual fall in the production of steel was:

(1) 1970        (2) 1971        (3) 1974        (4) 1962

108. You are given this graph of a triangle DEF and you are asked its area. What do you think it is?
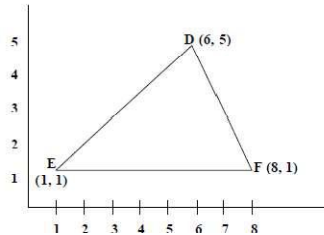


(1) 10        (2) 12        (3) 14   (4) 18

109. The ratio of the number of ladies to gents at a party was 3:2. When however 20 more gentlemen joined the group, the ratio was reversed. How many ladies were there at the party?

(1) 16        (2) 24        (3) 32   (4) 36

110. A magician picked four numbers out of a hat. The average of the 4 numbers is 9. If three of the numbers are 5, 9 and 12, then what is the 4th number?

(1) 8        (2) 9        (3) 10   (4) 11

111. X asked Y her age and she said: "My age?" she asked, "you will have to guess!" "Just let me think, AH! that's it: yes!!" "Reverse my age, divide by three, add thirty-four, my age you'll see!!" How old was Y?

(1) 32        (2) 42        (3) 36   (4) 46

112. $(4) (2^{1996}) = ?$

(1) $8^{1996}$

(2) $2^{1998}$

(3) $4^{1997}$

(4) $2^{1997}$

113. A farmer found an advertisement for a plot of land with a very good soil and an asking price of £12500. The plot looked like this:
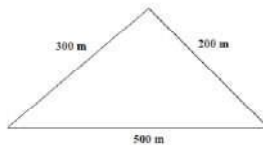


Why didn't the farmer buy the land?

(1) The plot size is small        (2) The plot has no area

(3) The cost is high        (4) He did not like the soil

114. If the figure shown below is folded to make a cube, then what is the letter opposite the S?
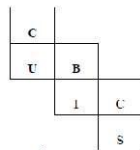


(1) C        (2) U        (3) B   (4) I

115. Which is the highest number of 4 digits that is a perfect square?
(1) 9264        (2) 9991             (3) 9600        (4) 9801

116. 7 men can dig a canal in 14 weeks. After 2 weeks of work, another 7 men join them. In how many weeks more is the work finished?
(1) 5            (2) 6             (3) 8    (4) 9

117. A man divides his property in such a way that his 1st three sons get $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{1}{6}$ of the property respectively and the forth son gets the remainder amounting to Rs.2000. What was the whole property worth?
(1) 14000        (2) 16000            (3) 20000        (4) 24000

118. $\dfrac{0.67\times0.67\times0.67-0.001}{0.67\times0.67+0.067+0.01}=?$

(1) 0.671        (2) 0.68             (3) 0.77        (4) 0.57

119. The average age of 25 students of a class is 10 years. When a new student is admitted, the average age becomes 10.1. What is the age of the new boy?
(1) 10.1 yrs        (2) 11.6 yrs          (3) 12 yrs        (4) 12.6 yrs

120. What is the compound interest on £ 4000 at 10% p.a. for 2 yrs and 3 months?
(1) £ 921        (2) £ 961            (3) £ 990        (4) £ 800

121. 20% of which number exceeds a sixth of it by 10?
(1) 126        (2) 180             (3) 240        (4) 300

122. The cost of transportation of goods amount to 5% of the cost price. What is the cost price of goods sold for £ 1890/- at 20% profit for the outlay?
(1) £ 1417.5                 (2) £ 1500
(3) £ 1575                 (4) £ 1600

123. In the accompanying figure, AB=BC=CA, it⌐DBA=40°, what is⌐CBE ?
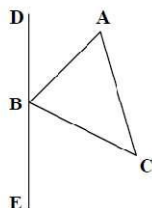


(1) 40°        (2) 60°            (3) 80°        (4) 100°

124. A shop's receipts on the first day of the week were £ 10,000, on the 2nd day, 20% more than this and on the 3rd day, 80% of the sum of the receipts of the first 2 days. What was the average of the receipts during this three day period (in £)?
(1) 10533.33        (2) 12300          (3) 12500        (4) 13200

125. When an article is sold for Rs. 420, a profit of 20% is made. What should the SP be if a profit of 25% is desired?
(1) Rs. 425        (2) Rs. 427.5          (3) Rs. 437.5    (4) Rs. 440

126. If the five expressions 2x+1, 2x-3, x+2, x+5 and x-3 can be arranged in a different order so that the first three have a sum 4x+3, and the last three have a sum 4x+4, what would the middle expression be?
(1) 2x+1        (2) 2x-3           (3) x+5        (4) x+2

127. I have sold 2/3 of my pencils for £ 0.15 each. If I have 8 pencils left, how much did I collect for the pencils I sold?
(1) £ 2.40        (2) £ 3.40           (3) £ 2.25        (4) £ 3.25

128. The minute hand of a clock is 6cm long. To the nearest centimetre, how far does the tip of the minute hand move in 35 minutes?
(1) $7\pi^2$ cm        (2) $7\pi$ cm          (3) $7^2\pi$ cm        (4) $7^2\pi^2$ cm

129. The numerator of a certain fraction is 3 less than the denominator. If the numerator is tripled and the denominator is increased by 7, the value of the resulting fraction is 3/2. What was the original fraction?

(1) 7/12       (2) 10/13           (3) 13/17     (4) 17/19

130. What is the next in the sequence? 2, 10, 202, _____

(1) 86110     (2) 81160         (3) 81610     (3) 80116

# TEST IV
# REASONING

**Directions for questions 131-137**: Consider the following information.

There will be seven performers in a talent show: a guitarist, a hypnotist, a juggler, a magician, a pianist, a singer and a ventriloquist. Exactly three of the performers – the guitarist, the pianist and the singer – will each require a recorded musical accompaniment. The schedule for the show has seven consecutive time slots. Each of the seven performers will appear in exactly one time slot, and each time slot will have exactly one performer appearing in it. The schedule must follow the rules below:

(i) The juggler must appear first.
(ii) The ventriloquist cannot appear immediately after the magician.
(iii) At most two performers requiring a recorded musical accompaniment can appear in succession.

131. Which of the following is an acceptable schedule for the last four performers in the show?

| | **Fourth** | **Fifth** | **Sixth** | **Seventh** |
|---|---|---|---|---|
| (1) | Guitarist | Magician | Ventriloquist | Singer |
| (2) | Magician | Pianist | Singer | Guitarist |
| (3) | Singer | Guitarist | Pianist | Hypnotist |
| (4) | Ventriloquist | Hypnotist | Magician | Singer |

132. If the ventriloquist appears third, the singer appears fifth, and the pianist appears sixth, which of the following must be true?

(1) The guitarist appears second.    (2) The guitarist appears fourth.
(3) The hypnotist appears second.    (4) The magician appears fourth.

133. If the singer appears third and the pianist appears fourth, the guitarist must appear either

(1) second or fifth             (2) second or seventh
(3) fifth or sixth              (4) sixth or seventh

134. If the ventriloquist appears fifth and the hypnotist appears sixth, which of the following must be true?

(1) The guitarist appears either third or seventh
(2) The magician appears either second or third
(3) The pianist appears either second or fourth
(4) The singer appears either second or seventh

135. If the hypnotist appears sixth and the magician appears seventh, which of the following must be true?

(1) The ventriloquist appears third or fourth
(2) The singer appears fourth or fifth
(3) The juggler immediately precedes the pianist
(4) The pianist immediately precedes the guitarist

136. What is the total number of different time slots into any one of which the singer can be scheduled?

(1) 3         (2) 4             (3) 5   (4) 6

137. If all of the performers requiring musical accompaniment appear before the magician, who appears sixth, each of the following could be true EXCEPT that the

(1) Guitarist appears fifth        (2) Hypnotist appears fourth
(3) Pianist appears second       (4) Singer appears fourth

**Directions for questions 138-144**: Each of these questions is followed by two statements, labelled (a) and (b), in which certain data are given. In these questions, you do not actually have to compute the answer, but rather you have to decide whether the data given in the statements are sufficient for answering the question. Answer

(1)   if statement (a) ALONE is sufficient but statement (b) alone is not sufficient to answer the question.

(2)   if statement (b) ALONE is sufficient but statement (a) alone is not sufficient to answer the question.

(3)   if both statements (a) and (b) TOGETHER are sufficient to answer the question asked but NEITHER statement ALONE is sufficient

(4)   if each statement is sufficient by itself to answer the question asked.

138.   A group of cows and chickens walk about in a farmyard. All together there are 18 animals. How many cows are there?
       (a) More than half the animals are chickens
       (b) The total number of legs is 44

139.   Five girls are standing in a row. What is the weight of the third girl?
       (a) The third girl is 75% of the average weight.
       (b) Their total weight is 260 Kg.

140.   If she types at her average speed, can the secretary finish the 1750 word report in 20 minutes?
       (a) She types 6000 words per hour
       (b) In 10 minutes she can type 1000 words

141.   How much fuel will a 120 h.p. engine consume in 2 hours?
       (a) Fuel costs $ 1 per litre
       (b) The engine utilizes 1 litre of fuel per h.p. per hour

142.   A building and 3 sides of fencing enclose a rectangular 100 square metre plot. How many feet of total fencing is needed for the 3 sides?
       (a) The building is 25 metres long
       (b) 4 metres fencing is needed on one of the sides

143.   On an average how far can the car go on 20 litres of petrol?
       (a) It averages 8 km. on a litre
       (b) The car would need 45 litres of petrol to go 360 km.

144.   There are 4000 students in a school, all of whom take a course in English and/or Maths. How many students take both the subjects?
       (a) 640 students take only English
       (b) 525 students take only Maths.

**Directions for questions 145-150**: Numbers in the following questions follow a certain pattern. Your task is to find out the missing number.

145.   2348, 3437,  ? , 5435, 6344
       (1) 4346        (2) 4634              (3) 4444        (4) 7343

146.   6, 18, 54, 162, ?__
       (1) 262         (2) 270              (3) 486        (4) 324

147.   4735, 5474, 4548, 8455, ?__
       (1) 9456        (2) 5845              (3) 5548        (4) 5846

148.   48, 515, 624, 735, ?__
       (1) 848         (2) 846              (3) 835        (4) 900

149.   366, 479, 684, ?__
       (1) 785         (2) 891              (3) 981        (4) 872

150.   49, 916, 1625, 2536, ?__
       (1) 3649        (2) 3536              (3) 3600        (4) 6481

**Directions for questions 151-155**: Consider the following information:

- (i) A, B, C, D, E and F are six students in a class
- (ii) B and C are shorter than F but heavier than A
- (iii) D is heavier than B and taller than C
- (iv) E is shorter than D but taller than F
- (v) F is heavier than D
- (vi) A is shorter than E but taller than F

151. Who among them is the tallest?
     (1) B        (2) A                          (3) D   (4) E
152. Who is third from the top when they are arranged in descending order of their height?
     (1) A        (2) E                          (3) B   (4) C
153. Which of the following statements is true for F as regards height and weight?
     (1) He is heavier than B and C but shorter than D
     (2) He is lighter than B and C but taller than D
     (3) He is heavier than B and taller than E
     (4) He is lighter than E and taller than E
154. Which of the following groups of friends is shorter than A?
     (1) D, B, C only                            (2) E, B, C only
     (2) B, C only                               (4) F, B, C only
155. Who among them is the lightest?
     (1) B            (2) C                       (3) A   (4) Data inadequate

**Directions for questions 156-160**: Find the odd one out.

156. (1) CLOUD      (2) SNOW           (3) SKY          (4) LAKE
157. (1) WRITE      (2) THINK          (3) IMAGINE      (4) MEDITATE
158. (1) BANGLES    (2) EAR-RING       (3) JEWELLERY          (4) NECKLACE
159. (1) PHYSICS    (2) ECONOMICS      (3) BOTANY       (4) CHEMISTRY
160. (1) FLOWER     (2) ROOT           (3) LEAF         (4) STEM

**Directions for questions 161-164**: Consider the following information:

Six campers – A, B, C, D, G, and H – are arranging a dishwashing schedule for the six days of their camping trip so that each of them will wash dishes on only one day.

- (i) B washes either on day 2 or on day 6.
- (ii) If A washes on day 1, C washes on day 4; C does not wash on day 4 unless A washes on day 1.
- (iii) If A washes on day 1, H washes on day 5; H does not wash on day 5 unless A washes on day 1.
- (iv) If G does not wash on day 3, A washes on day 3.
- (v) If A washes on day 4, D washes on day 5.
- (vi) If B washes on day 2, G washes on day 5.
- (vii) If H washes on day 6, D washes on day 4

161. Which of the following is an acceptable order in which the campers can wash dishes from the first to the last day?
     (1) D, B, A, G, C, H                        (2) B, A, H, C, G, D
     (3) H, G, B, C, D, A                        (4) C, B, A, D, G, H
162. If D washes on day 6, on which day does C wash?
     (1) 1        (2) 2                          (3) 3   (4) 4
163. If A washes on day 1, who washes on day 2?
     (1) B        (2) C                          (3) D   (4) G
164. If B washes on day 2, which of the following is a complete and accurate list of the days that could be the day on which H washes?
     (1) 4        (2) 1, 4                       (3) 4, 6        (4) 1, 4, 6

**Directions for questions 165-167**: Each of these questions has four words labelled (a) to (d). If these words are rearranged in the alphabetical order as in a dictionary, what would be the correct sequence?

165. (a) CONDITION (b) CONFESS (c) CONDUIT (d) COMPOUND
(1) dcba      (2) abcd               (3) dabc      (4) dacb

166. (a) MINIMUM (b) MINIMIZE (c) MINT (d) MINISTRY
(1) badc      (2) bcda               (3) bacd      (4) cdab

167. (a) SERUM (b) SESSION (c) SERPENTINE (d) SERVICE
(1) cbda      (2) cdab               (3) cadb      (4) adbc

**Directions for questions 168-172**: These questions are based on the following information:
    (i)      There are five girls – A, M, N, P, and S.
    (ii)      M and S are good in Dramatics and Computer Science
    (iii)      A and M are good in Computer Science and Physics
    (iv)      A, P and N are good in Physics and History
    (v)      N and A are good in Physics and Mathematics
    (vi)      P and S are good in History and Dramatics

168. Who is good in Physics, History and Mathematics, but not in Computer Science?
(1) P      (2) A               (3) M   (4) N

169. Who is good in History, Physics, Computer Science, and Mathematics?
(1) A      (2) M               (3) N   (4) P

170. Who is good in Physics, History, and Dramatics?
(1) M      (2) P               (3) A   (4) S

171. Who is good in Physics, Dramatics, and Computer Science?
(1) S      (2) P               (3) M   (4) A

172. Who is good in Computer Science, History, and Dramatics?
(1) M      (2) A               (3) N   (4) S

**Directions for questions 173-175**: Refer to the sketch given below:
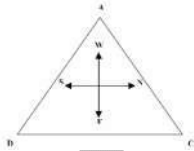


A, B, and C are standing on the corners of a triangular patch as shown in the sketch. The triangle is equilateral.

173. Which one of the following statements is true?
(1) A is south-west of B            (2) B is west of C
(3) C is east of B                  (4) B is south of C

174. A, B and C start walking along the sides of the patch in clockwise direction and after covering 1½ sides stop. Find out which one of the following statements is true?
(1) C is west of B                (2) A is north east of C
(3) B is north east of A        (4) C is south of A

175. From their positions in question 174, all of them run to point O, the middle of the triangular patch. From these A decides to go north, B westwards and C eastwards, till they reach the edge of the patch. Indicate, which one of the following is true?
(1) B is north west of A       (2) A is north east of C
(3) B is south west of A       (4) C is north east of A

**Directions for questions 176-180**: Unscramble the letters in the following words and find the odd one out.

176. (1) TUOCR      (2) NKRI               (3) AAENR      (4) COKHEY
177. (1) NNLLICO      (2) LLHHCCUIR      (3) EENNDYK   (4) NNOTICL
178. (1) TIHEW      (2) LLEOWY          (3) ACLKB      (4) HITNG
179. (1) AEITNRG      (2) AEMBRL        (3) EOTSN      (4) AEKT
180. (1) AOTB      (2) IPSH               (3) RCA      (4) ATYCH

**Directions for questions 181-186**: Consider the following information:

The directions of a museum are mounting an exhibition of paintings in a space

temporarily partitioned into exactly seven rooms – R, S, T, U, X, Y, and Z. Visitors reach room R by an elevators, and they can enter and leave the exhibition only through room R. Once inside, visitors are free to move as they choose from room to room. The following list includes all of the doorways that connect the seven rooms:

- (i)  There is a doorway between R and S, and doorway between R and T, and a doorway between R and X
- (ii)  There is a doorway between S and T
- (iii)  There is a doorway between X and U and a doorway between X and Y
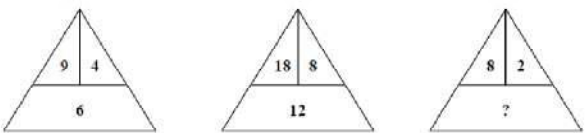- (iv)  There is a doorway between Y and Z

181. Which of the following rooms CANNOT be the third room of the exhibition that any visitor enters?

(1) T      (2) S      (3) Y   (4) Z

182. Which of the following is a room that a visitor must enter before entering room U?

(1) S      (2) T      (3) X   (4) Y

183. If one of the doorways between two exhibition rooms is to be closed off, and yet all rooms are to remain accessible to visitors, the closed-off doorway can be a doorway allowing passage to which of the following rooms?

(1) R      (2) X      (3) Y   (4) Z

184. If a visitor to the exhibition enters no room more often than necessary to visit all of the rooms and then leaves the exhibition, which of the following rooms must the visitor enter exactly twice?

(1) S      (2) T      (3) X   (4) Y

185. After stopping to rest in Z, a visitor goes from Z to T, passing through no more rooms than necessary. On reaching T, the visitor will have passed through a total of how many rooms (counting neither Z nor T) since the rest stop?

(1) 2      (2) 3      (3) 4   (4) 5

186. Which of the following proposed new doorways would make it possible for a visitor to begin at R and visit all the rest of the rooms, arriving last at Z, without having entered any of the rooms in the exhibition twice?

(1) R-U      (2) S-Z      (3) T-U      (4) U-Y

**Directions for questions 187-190**: Find the missing number.

187.

| 14 | 19 | 12 |
|----|----|----|
| 13 | 15 | 17 |
| 18 | 11 | ?  |

(1) 10      (2) 16      (3) 19 (4) 0

188.



(1) 4      (2) 5      (3) 6   (4) 7

189.

| 9 | 9 | 162 |
|---|---|-----|
| 6 | 8 | ?   |

(1) 90      (2) 100      (3) 110      (4) 120

190.



(1) 64        (2) 66

(3) 1         (4) 65
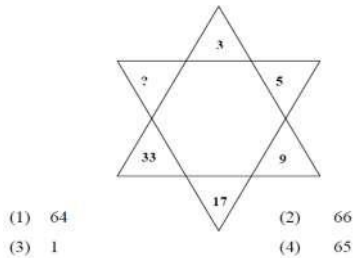
**Directions for questions 191-196**: Consider the following information:

Each of six pegs – P, Q, R, S, T and U is placed in a different one of seven holes numbered consecutively 1 through 7 from left to right. The holes are evenly spaced and arranged in a straight line. The placement of the pegs is subject only to the following conditions:

(i)      The distance separating P from Q must be the same as the distance separating R from S.

(ii)     T must be in a hole immediately adjacent to the hole that U is in.

(iii)    The left most hole cannot be the hole that is left empty.

191.    Which of the following is a placement of pegs in holes 1 through 7, respectively, in conformity with the conditions above?

(1) Q, R, empty hole, S, P, U, T        (2) S, T, Q, R, U, empty hole, P

(3) S, U, T, P, R, empty hole, Q       (4) S, R, U, T, P, Q, empty hole

192.    If U is in hole 2, which of the following must be true?

(1) T is in hole 1        (2) P is in hole 3

(3) Q is in hole 4       (4) R is in hole 5

193.    If U, P and R are in holes 5, 6 and 7 respectively, which of the following must be true?

(1) S is in hole 1        (2) S is in hole 2

(3) Q is in hole 2       (4) Q is in hole 3

194.    If P and R are in holes 1 and 3, respectively, the empty hole must be either

(1) 2 or 4    (2) 2 or 6        (3) 4 or 5    (4) 5 or 7

195.    If P and Q are in holes 2 and 4, respectively, which of the following could be true?

(1) R is in hole 3        (2) R is in hole 5

(3) S is in hole 6       (4) Hole 6 is the empty hole

196.    Of the following, which is a hole that could be the empty hole?

(1) 1    (2) 2        (3) 3  (4) 6

**Directions for questions 197-200**: Consider the following information:

Six negotiators – M, O, P, R, S and T - are to be seated at a round table for discussions. There are exactly six chairs around the table. Each negotiator sits facing the centre of the table and is directly opposite a negotiator across the table. The seating arrangement is subject to the following restrictions.

(i)      T cannot sit next to P

(ii)     S cannot sit next to M

(iii)    R must sit next to M

197.    If R sits next to S on S's right side, who must sit next to R on R's right side?

(1) M    (2) O        (3) P  (4) T

198.    If M sits next to P, which of the following is a complete and accurate list of those who can sit next to P on P's other side?

(1) O    (2) O, S        (3) O, S, R    (4) R, S, T

199.    If T sits next to M and S sits next to R, which of the other negotiators must sit next to S?

(1) M    (2) O        (3) P  (4) R

200.    If T sits directly across the table from O, who must sit on either side of P?

(1) O and S   (2) M and O        (3) M and S    (4) O and R

## KEY (Test I)

| Question No. | Answer |
|---|---|
| 1. | 1 |
| 2. | 1 |
| 3. | 3 |
| 4. | 1 |
| 5. | 4 |
| 6. | 3 |
| 7. | 3 |
| 8. | 3 |
| 9. | 2 |
| 10. | 3 |
| 11. | 1 |
| 12. | 4 |
| 13. | 3 |
| 14. | 4 |
| 15. | 3 |
| 16. | 1 |
| 17. | 4 |
| 18. | 1 |
| 19. | 2 |
| 20. | 4 |
| 21. | 1 |
| 22. | 3 |
| 23. | 1 |
| 24. | 2 |
| 25. | 1 |
| 26. | 3 |
| 27. | 4 |
| 28. | 2 |
| 29. | 2 |
| 30. | 1 |

## KEY (Test II)

| Question No. | Answer |
|---|---|
| 31. | 2 |
| 32. | 3 |
| 33. | 2 |
| 34. | 3 |
| 35. | 3 |
| 36. | 3 |
| 37. | 3 |
| 38. | 3 |
| 39. | 4 |
| 40. | 1 |
| 41. | 3 |
| 42. | 4 |
| 43. | 2 |
| 44. | 4 |
| 45. | 3 |
| 46. | 3 |
| 47. | 2 |
| 48. | 2 |
| 49. | 4 |
| 50. | 1 |
| 51. | 2 |
| 52. | 3 |
| 53. | 4 |
| 54. | 4 |
| 55. | 2 |
| 56. | 2 |
| 57. | 2 |
| 58. | 4 |
| 59. | 2 |
| 60. | 4 |

## KEY (Test II)

| Question No. | Answer |
|---|---|
| 61. | 4 |
| 62. | 1 |
| 63. | 3 |
| 64. | 4 |
| 65. | 3 |
| 66. | 3 |
| 67. | 3 |
| 68. | 4 |
| 69. | 4 |
| 70. | 4 |
| 71. | 2 |
| 72. | 2 |
| 73. | 4 |
| 74. | 2 |
| 75. | 3 |
| 76. | 3 |
| 77. | 2 |
| 78. | 1 |
| 79. | 3 |
| 80. | 2 |

## KEY (Test III)

| Question No. | Answer |
|---|---|
| 81. | 2 |
| 82. | 4 |
| 83. | 2 |
| 84. | 4 |
| 85. | 3 |
| 86. | 1 |
| 87. | 3 |
| 88. | 2 |
| 89. | 3 |
| 90. | 1 |
| 91. | 2 |
| 92. | 3 |
| 93. | 2 |
| 94. | 3 |
| 95. | 4 |
| 96. | 4 |
| 97. | 3 |
| 98. | 3 |
| 99. | 4 |
| 100. | 2 |
| 101. | 4 |
| 102. | 3 |
| 103. | 4 |
| 104. | 3 |
| 105. | 4 |
| 106. | 1 |
| 107. | 4 |
| 108. | 3 |
| 109. | 2 |
| 110. | 3 |
| 111. | 2 |
| 112. | 2 |
| 113. | 2 |
| 114. | 3 |
| 115. | 4 |
| 116. | 2 |
| 117. | 4 |
| 118. | 4 |
| 119. | 4 |
| 120. | 2 |

## KEY (Test III)

| Question No. | Answer |
|---|---|
| 121. | 4 |
| 122. | 2 |
| 123. | 3 |
| 124. | 2 |
| 125. | 4 |
| 126. | 3 |
| 127. | 1 |
| 128. | 2 |
| 129. | 2 |
| 130. | 3 |

## KEY (Test IV)

| Question No. | Answer |
|---|---|
| 131. | 4 |
| 132. | 1 |
| 133. | 4 |
| 134. | 2 |
| 135. | 1 |
| 136. | 4 |
| 137. | 2 |
| 138. | 2 |
| 139. | 3 |
| 140. | 4 |
| 141. | 2 |
| 142. | 4 |
| 143. | 4 |
| 144. | 3 |
| 145. | 1 |
| 146. | 3 |
| 147. | 4 |
| 148. | 1 |
| 149. | 2 |
| 150. | 1 |
| 151. | 3 |
| 152. | 1 |
| 153. | 1 |
| 154. | 4 |
| 155. | 4 |
| 156. | 3 |
| 157. | 1 |
| 158. | 3 |
| 159. | 2 |
| 160. | 2 |
| 161. | 4 |
| 162. | 1 |
| 163. | 3 |
| 164. | 4 |
| 165. | 4 |
| 166. | 1 |
| 167. | 3 |
| 168. | 4 |
| 169. | 1 |
| 170. | 2 |
| 171. | 3 |
| 172. | 4 |
| 173. | 4 |
| 174. | 2 |
| 175. | 3 |
| 176. | 4 |
| 177. | 2 |
| 178. | 4 |
| 179. | 4 |
| 180. | 3 |

## KEY (Test IV)

| Question No. | Answer |
|---|---|
| 181. | 4 |
| 182. | 3 |
| 183. | 1 |
| 184. | 4 |
| 185. | 2 |
| 186. | 3 |
| 187. | 2 |
| 188. | 1 |
| 189. | 2 |
| 190. | 4 |
| 191. | 4 |
| 192. | 1 |
| 193. | 2 |
| 194. | 4 |
| 195. | 1 |
| 196. | 3 |
| 197. | 1 |
| 198. | 2 |
| 199. | 3 |
| 200. | 1 |