

**Max. Time: 120 min****AARAMBH****Max marks: 320****Instructions:**

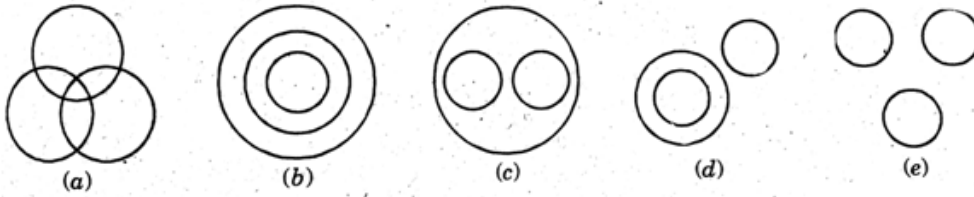
- i. The test paper consists of **80** multiple choice questions numbered from **1 to 80**, each question followed by four alternatives 1, 2, 3 and 4.
- ii. Mental Ability 1 to 20, Mathematics 21 to 35, Physics 36 to 50 and Chemistry 51 to 65, Biology 66 to 80.
- iii. Each question has only one correct option.
- iv. Each correct answer carries **4 Marks**.
- v. No negative marking for wrong answer.

**MAT (Q.NO.1 TO 20)****Directions (Q.No : 1 - 2): Find the missing term in the given number series:**

1.  $\frac{4}{9}, \frac{9}{20}, ?, \frac{39}{86}$   
 1)  $\frac{17}{40}$                       2)  $\frac{19}{42}$                       3)  $\frac{20}{45}$                       4)  $\frac{29}{53}$
2.  $11\frac{1}{9}, 12\frac{1}{2}, 14\frac{2}{7}, 16\frac{2}{3}, ?$   
 1)  $8\frac{1}{3}$                       2)  $19\frac{1}{2}$                       3) 20                      4)  $22\frac{1}{3}$
3. **ATTRIBUTION, TTRIBUTIO, RIBUTIO, IBUTI,?**  
 1) IBU                      2) UT                      3) UTI                      4) BUT
4. **Which term comes next in the series? YEB, WFD, UHG, SKI, ?**  
 1) QOL                      2) QGL                      3) TOL                      4) QNL
5. **If HEALTH is written as GSKZDG, then how will NORTH be written in that code?**  
 1) OPSUI                      2) GSQNM                      3) FRPML                      4) IUSPO
6. **In a certain code, BROUGHT is written as SGFVAQN. How is SUPREME written in that code?**  
 1) DLDSTVQ                      2) DLDSRTO                      3) FNFSRTO                      4) RTOSDLL

**Directions (Q.No-7 to 8) :** Each of the following questions below contains three elements. These three elements may or not have some linkage. Each group of the elements may fit into one of the diagrams at (a), (b), (c), (d) and (e). You have to indicate

groups of elements in each questions fit into which of the diagram given below. The letter indicating the diagram is the answer.

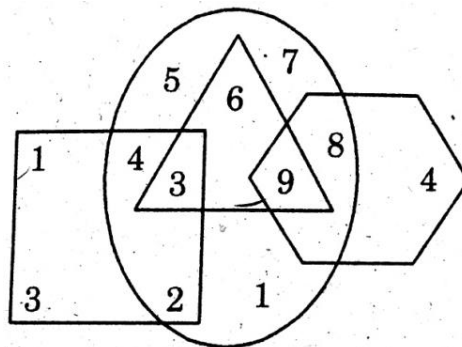


- 7. English, Latin, Greek  
 1) a                                      2) b                                      3) c                                      4) e
- 8. Nitrogen, Ice, Air  
 1) a                                      2) b                                      3) c                                      4) d
- 9. A man is facing west. He turns  $45^\circ$  in the clockwise direction and then another  $180^\circ$  in the same direction and then  $270^\circ$  in the anti-clockwise direction. Which direction is he facing now?  
 1) South                                      2) North-west                                      3) West                                      4) South-west

Directions : (10 to 11) Which of the following words will come middle in the English dictionary

- 10. Which of the following words will come middle in the English dictionary  
 a) Rumbustious b) Rumanian c) Rumour d) Ruminare e) Rurple  
 1) a                                      2) b                                      3) c                                      4) d
- 11. Fraudulent                                      b) Fraught                                      c) Fraternity                                      d) Franchise  
 e) Frantic  
 1) a                                      2) b                                      3) c                                      4) d

Directions (Q.No-12 to 14): Study the figure given below carefully and answer the questions that follow.



- 12. Which number belongs to all the figures?  
 1) 3                                      2) 4                                      3) 6                                      4) None of these
- 13. What is the product of the numbers which belongs to two figures only ?  
 1) 64                                      2) 192                                      3) 384                                      4) None of these
- 14. What is the sum of the numbers which belongs to two figures only ?  
 1) 6                                      2) 15                                      3) 20                                      4) None of these

Directions (Questions 15-16): Read the following information carefully and answer the questions given below:

A, B, C, D, E, F and G are seven students in a class. They are sitting on there benches I, II and III in such a way that there are at least two of them on each bench

and there is at least one girl on each bench. C, a girl student, does not sit with A, E and D. F, a boy student, sits with only B. A sits with his best friend in bench I.G sits on bench II.E is brother of C.

15. On which bench do three students sit

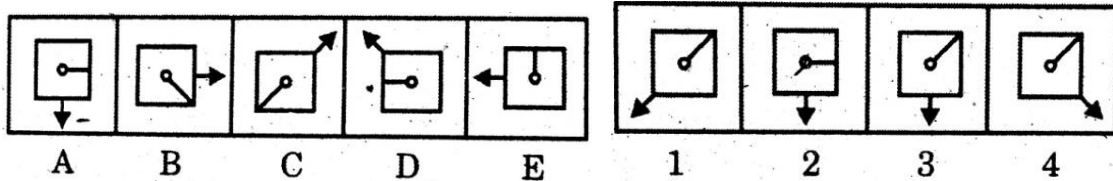
- 1) I                                      2) II                                      3) III                                      4) I or II

16. Which of the following is a group of girls?

- 1) BAC                                      2) BCD                                      3) BFC                                      4) CDF

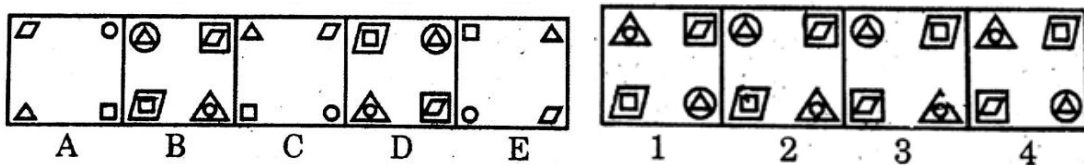
Directions: Figure series(Q.no- 17 – 18 )

17.



- 1) 1                                      2) 2                                      3) 3                                      4) 4

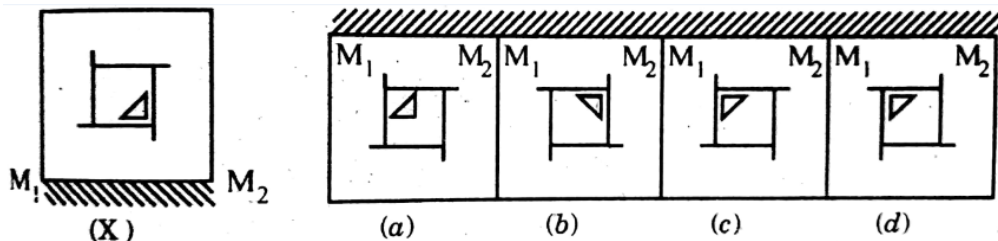
18.



- 1) 1                                      2) 2                                      3) 3                                      4) 4

Directions (Q. No: 19): Mirror Image.

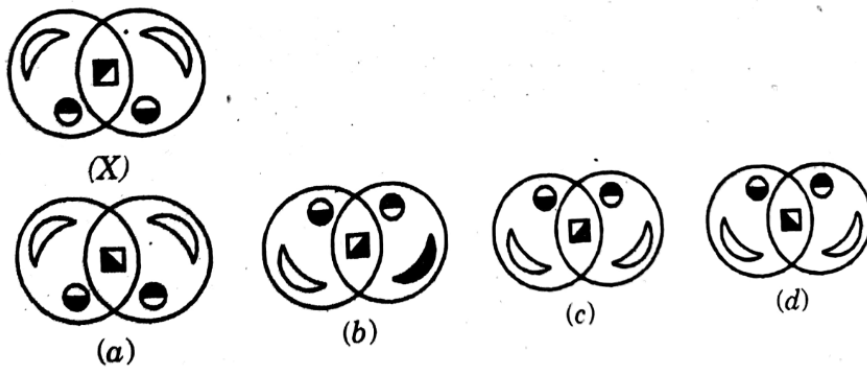
19.



- 1) a                                      2) b                                      3) c                                      4) d

Directions (Q. No: 20): Water Image

20.



- 1) a                                      2) b                                      3) c                                      4) d

**MATHEMATICS (Q.NO.21 TO 35)**

21. The decimal form  $11\frac{13}{25}$  is  
 1) 11.25                      2) 11.52                      3) 1.152                      4) 0.1152
22. Product of 2001 and 12 rounded to nearest thousands is equal to:  
 1) 2400                      2) 24000                      3) 230000                      4) 2500
23. If 61870 is rounded to nearest ten thousands and divided by 10, the quotient is:  
 1) 6187                      2) 6000                      3) 1000                      4) None of the above
24. Mr. Sharma bought one dozen eggs and used seven of them in baking a cake. What fraction of the total number of eggs were used?  
 1)  $\frac{1}{7}$                       2)  $\frac{7}{1}$                       3)  $\frac{7}{12}$                       4)  $\frac{12}{7}$
25. Vinod chose a number that is smaller than  $-7$ , larger than  $-10$  and is even. What number did Vinod choose?  
 1)  $-5$                       2)  $-9$                       3)  $-8$                       4)  $-7$
26. Name of the batsman                      Runs scored  
 Sachin Tendulkar                      500  
 T. Dilshan                      482  
 K. Sangakkara                      489  
 Virat kohli                      600  
 How many runs scored T. Dilshan less than the runs scored by virat kohli? \_\_\_\_  
 1) 118                      2) 489                      3) 482                      4) 500
27. The area of rectangular foot ball field is 24200 sq .m. It is half as broad as it is long. The approx.. minimum distance a man will cover if he wishes to go from one corner to the opposite one is  
 1) 283 m                      2) 246 m                      3) 576 m                      4) 289m
28. The point has \_\_\_\_\_ number of dimensions.  
 1) zero                      2) one                      3) two                      4) infinity
29. Ascending order of  $\frac{2}{3}, \frac{3}{8}, \frac{1}{2}, \frac{7}{10}$  is  
 1)  $\frac{7}{10} < \frac{3}{8} < \frac{1}{2} < \frac{2}{3}$     2)  $\frac{3}{8} < \frac{2}{3} < \frac{1}{2} < \frac{7}{10}$     3)  $\frac{3}{8} < \frac{1}{2} < \frac{2}{3} < \frac{7}{10}$     4)  $\frac{7}{10} < \frac{2}{3} < \frac{1}{2} < \frac{3}{8}$
30. A squash ball weights 24000mg, a golf ball weights 45g, a basket ball weights 0.65 kg and a foot ball weights  $\frac{9}{20}$  of a kg. Arrange the names of the sports in order of weight of the ball from the heaviest to the lightest.  
 1) Basket ball, golf ball, squash ball, foot ball  
 2) Squash ball, foot ball, basket ball, golf ball  
 3) Foot ball, basket ball, golf ball, squash ball  
 4) Basket ball, foot ball, golf ball, squash ball





53. **The process of settling down of a heavier and insoluble components from a mixture is called:**  
1) evaporation      2) distillation      3) sedimentation      4) decantation
54. **Name the substance, which is secreted by a pupa:**  
1) Chandrikas      2) Siricin      3) Reeling      4) Warp
55. **Which among the following statements is false?**  
1) Natural fibres are made by cotton, Wool and silk.  
2) Artificial fibres are made by Nylon, Terylene and Rayon.  
3) Woolen threads are non-elastic.  
4) The process of drawing and winding silk fibres is called "reeling".
56. **The threads are found to be arranged loosely with space in**  
1) Cotton      2) Wool      3) Silk      4) None
57. **In Carbon dioxide and Hydrogen mixture which gas diffuses first?**  
1) Carbon dioxide      2) Hydrogen  
3) Same speeds      4) no diffusion takes place
58. **Water does not easily form lather with soap is called:**  
1) Soft water      2) Hard water      3) Rain water      4) Distilled water
59. **Which among the following are acts are pollutants for causing air pollution**  
1) Nitrogen      2) Sulphur dioxide      3) Oxygen      4) Hydrogen
60. **Air is**  
1) Element      2) Mixture      3) Compound      4) Gas
61. **Air contains oxygen and nitrogen respectively in the ratio of**  
1) 2: 4      2) 1: 3      3) 4: 1      4) 1: 4
62. **Gas evolved, when fuel is ignited**  
1) Oxygen      2) Nitrogen      3) Water vapour      4) Carbon dioxide
63. **Water at room temperature, above and below exist respectively as**  
1) Liquid, solid and vapour state      2) Liquid, Vapour and solid  
3) Solid, liquid and vapour      4) Vapour, Liquid and solid
64. **The state of matter which consists of only one free surface area which is exposed to air is**  
1) Solid      2) Liquid      3) Gas      4) All
65. **Solids, liquids and gases have \_\_\_\_\_ intermolecular space respectively**  
1) Very small, very large and small      2) Very large, very small and small  
3) Very small, small and very large      4) Small, very small and very large

**BIOLOGY (Q.NO.66 TO 80)**

66. **Which one of the following is a mineral and obtained from the sea.**  
1) Table sugar      2) Table pepper      3) Table salt      4) Table spices
67. **Find out the one which is not a dry fruit?**  
1) Cashewnuts      2) Elaichi      3) Almonds      4) Kismis
68. **The taste of food depends on its\_\_\_\_\_.**  
1) Ingredients      2) Method of preparation  
3) Cultural habits      4) All of the above

69. **Tomatoes are excellent sources of \_\_\_\_\_.**  
1) Vitamin - K      2) Vitamin – E      3) Vitamin – C      4) Vitamin - B
70. **The materials which are required to prepare food are known as\_\_\_\_\_.**  
1) Masalas      2) ingredients      3) mixtures      4) Tasty things
71. **The main root which becomes thick and has thin root lets in a plant is called;**  
1) fibrous root      2) root hair      3) tap root      4) root follicle
72. **A plant that stores food in its root :**  
1) potato      2) carrot      3) garlic      4) ginger
73. **The part that connects leaf lamina to the stem is**  
1) petiole      2) node      3) vein      4) mid rib
74. **The long vein present in the middle of the leaf lamina is called**  
1) stalk      2) vertebral column      3) mid rib      4) floating rib
75. **This is the skeleton of leaf :**  
1) venation      2) guard cells      3) root system      4) floral arrangement
76. **Plant: Producer:: Animal : \_\_\_\_\_.**  
1) Consumer      2) Producer      3) Decomposer      4) Jungle
77. **Plant: Flora:: Animals : \_\_\_\_\_.**  
1) Herbivore      2) Carnivore      3) Fauna      4) Decomposers
78. **How many biomes are there?**  
1) Five      2) Four      3) Three      4) Six
79. **What are those plants and animals called that get their energy by eating other things?**  
1) Producers      2) Herbivores      3) Decomposers      4) Consumers
80. **Which part of the food chain only eats meat?**  
1) Herbivore      2) Carnivore      3) Producer      4) Decomposer