



Max. Time: 120 min

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)

1. **Which term comes next in the series? YEB, WFD, UHG, SKI, ?**
 1) QOL 2) QGL 3) TOL 4) QNL
2. **PMT, OOS, NQR, MSQ, ?**
 1) LUP 2) LVP 3) LVR 4) LWP
3. **AZ, GT, MN, ?, YB**
 1) JH 2) SH 3) SK 4) TS
4. **m n o n o p q o p q r s _ _ _ _ _**
 1) mnopq 2) oqrst 3) pqrst 4) qrstu
5. **_ A C _ B D _ C D C D**
2 _ 4 1 _ 1 4 _ _ _ _
c d _ b c _ a ? ? ? ?
 1) a,b,a,b 2) a,c,a,c 3) c,b,c,b 4) c,d,c,d
6. **__ tu __ rt __ s __ __ usrtu __**
 1) rtusru 2) rsutrr 3) rsurtr 4) rsurts
7. **If 'train' is called 'bus', 'bus' is called 'tractor', 'tractor is called 'car', 'car' is called 'scooter', 'scooter' is called 'bicycle', is called 'moped', which is used to plough a field?**
 1) Train 2) Bus 3) Tractor 4) Car
8. **In a certain language, 'sun shines brightly' is written as 'ba lo sul', 'houses are brightly lit' as 'kado ula ari ba' and 'light comes from 'sun' as 'dopi kup lo nro'. What code-words are written for 'sun' and 'brightly'?**
 1) ba, sul 2) sul, lo 3) lo, ba 4) ba, lo

Directions (Questions 9-10): Read the following information carefully and answer the question given below.

- (i) A, B,C,D,E,F and G are sitting around a circle and are facing the centre.
- (ii) G is second to the left of C, who is to the immediate left of F
- (iii) A is third to the left of E.
- (iv) B is between D and E.

9 . Which of the following is false?

- 1) A is fourth to the right of E.
- 2) G is to the immediate right of D.
- 3) F is third to the right of D.
- 4) B is to the immediate left of D.

10. Which of the following pairs has the first person sitting to the immediate left of the second person?

- 1) BE
- 2) CA
- 3) GD
- 4) DG

Directions : (11 to 12): Find out which of the letter-series follows the given rule.

11. Number of letters skipped in between adjacent letters in the series is in the order of 2, 5, 7, 10

- 1) CEGLT
- 2) FNKOT
- 3) QTZHS
- 4) SYBEP

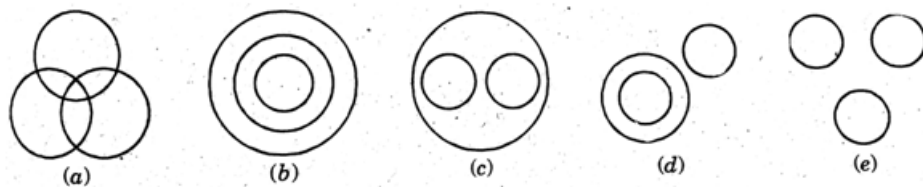
12. Number of letters skipped in between adjacent letters of the series starting from behind increases by one

- 1) OIGDC
- 2) OMJFA
- 3) OMKIG
- 4) ONLKJ

13. Rasik walks 20 m north. Then he turns right and walks 30 m. Then he turns right and walks 35 m. Then he turns left and walks 15 m. Then he again turns left and walks 15m. In which direction and how many meters away is he from his original position?

- 1) 15 meters West
- 2) 30 meters East
- 3) 30 meters West
- 4) 45 meters East

Directions (Q.No-14 to 16) : 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.



14. Iron, Lead, Nitrogen

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

15. Cabinet, Home Minister, Minister

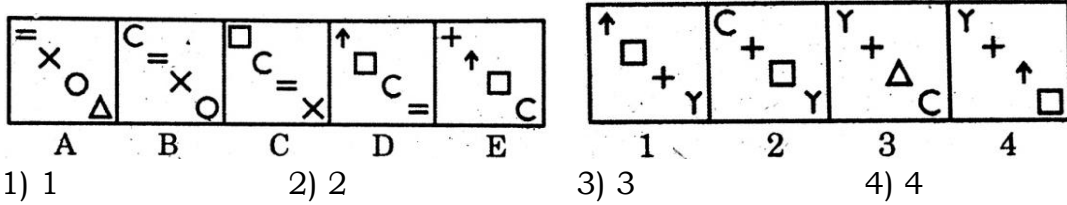
- 1) a
- 2) b
- 3) c
- 4) e

16. Men, Rodents, Living beings

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

FIGURE SERIES(17-18)

17.



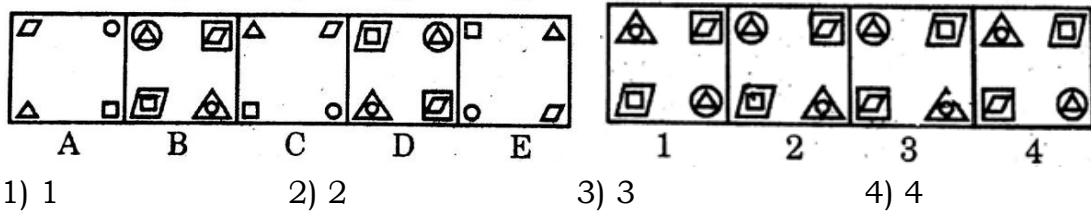
1) 1

2) 2

3) 3

4) 4

18.



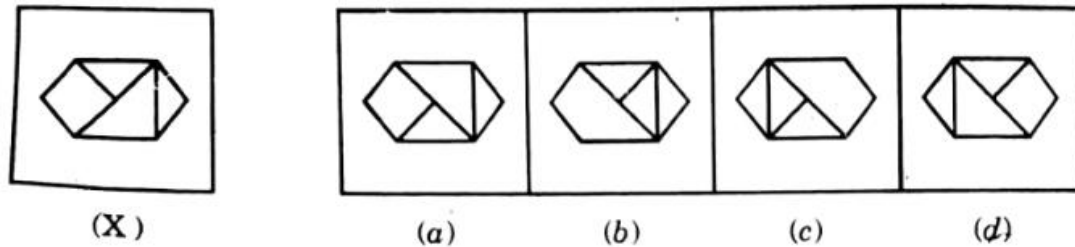
1) 1

2) 2

3) 3

4) 4

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



1) a

2) b

3) c

4) d

Directions (Q. No: 20): Water Image.

20.

A1M3b

(a) A1M3P

(b) A1M3P

(c) A1M3P

(d) A1M3P

1) a

2) b

3) c

4) d

MATHEMATICS (Q.NO.21 TO 35)

21. I am an improper fraction whose numerator and denominator are made of odd digits only. In my simplest form, my representation as a mixed number is $6\frac{1}{3}$. The sum of my numerator and denominator is 66. What fraction am I ?

1) $\frac{53}{4}$

2) $\frac{55}{7}$

3) $\frac{57}{9}$

4) $\frac{34}{5}$

22. If p and q are two integers such that p is the predecessor of q, then p – q is equal to

1) 1

2) 0

3) 2

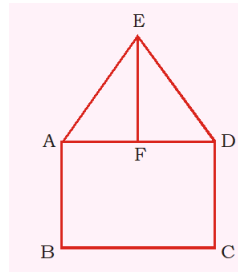
4) -1

23. The table shows the number of chocolates picked by students visiting a farm use the information in the table to answer the following questions

Name	Chocolates
Saritha	13
Deepthi	15
Tejeswari	21
Bhagyasri	50

How many chocolates picked by Saritha and Deepthi?

- 1) 15 2) 34 3) 28 4) 13
24. In the given figure ABCD is a square, $AC = BD = 4\sqrt{2}$ cm , $AE = DE = 2.5$ cm and $AB^2 + AD^2 = BD^2$



Read the above diagram, Area of ABCDE is

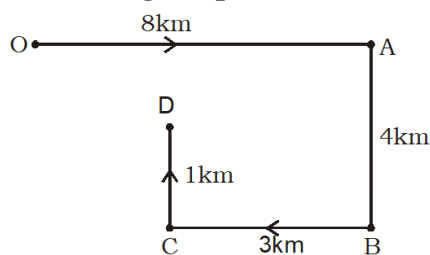
- 1) 16cm 2) 14cm 3) 12cm 4) 17cm
25. Which of the following statements is false?
- 1) A line segment has two end points
 2) A line has no end points
 3) A ray has only one end point
 4) A ray has no end points
26. 1238.129 the place value of 1 in integral part is
- 1) 100 2) 1000 3) 0.1 4) 0.001
27. The value of $4 + 4.44 + 44.4 + 4.04 + 444$ is
- 1) 500.88 2) 577.2 3) 495.22 4) 472.88
28. Each carton has 2500 items. Number of items in 15 such cartons is:
- 1) 37500 2) 375000 3) 3750 4) 47500
29. 40035 pencils are to be equally packed in 17 packets. How many pencils must be packed in each packet ?
- 1) 2156 2) 2355 3) 2245 4) 2431
30. Which number is between $\frac{32}{9}$ and $3\frac{7}{9}$?
- 1) $\frac{11}{9}$ 2) $3\frac{5}{6}$ 3) $3\frac{1}{3}$ 4) $3\frac{2}{3}$

31. $1-2+3-4+5-6+\dots+17-18+19-20=$
 1) -10 2) -11 3) -20 4) -21
32. The symbol x represents 1000 cars, 'Y' represents 500 cars.
 1980 x x x
 1981 x x x x
 1982 x x x x y
 1983 x x x x x
 1984 x x x x x x y
 1985 x x x x x x x x x y
- Based on Pictograph the production in 1984 is
 1) 8500 2) 9500 3) 7500 4) 6500
33. The area of a rectangular park is 2160m^2 . The length and breadth of the park are in the ratio 5 : 3, then the cost of fencing the park and at Rs 5 per meter is
 1) Rs. 120 2) Rs. 240 3) Rs. 320 4) Rs. 960
34. If two lines are parallel then the distance between them is
 1) always equal 2) not equal 3) increases 4) zero
35. $3+6\times(8+4)\div 3-7=$
 1) 14 2) 20 3) 12 4) 5

PHYSICS (Q.NO.36 TO 50)

36. **Statement I : Water occupies 75% of the Earth's surface.**
Statement II: Land occupies 75% of the Earth's surface.
 1) Statement I is true ; Statement II is true.
 2) Statement I is true ; Statement II is false.
 3) Statement I is false ; Statement II is true.
 4) Statement I is false ; Statement II is false.
37. **Assertion: When moon comes in between the Earth and the Sun, Solar eclipse occurs.**
Reason : Moon casts shadow on the Earth
 1) Assertion is true; Reason is true and reason is the correct explanation of Assertion
 2) Assertion is true; Reason is true but reason is not the correct explanation of Assertion.
 3) Assertion is true; Reason is false.
 4) Assertion is false; Reason is false Statement
38. **A force can**
(a) Move a body from rest
(b) Change the direction of a moving body
(c) Increase the mass of a body
 1) only a is true 2) only b is true
 3) only a and b are true 4) only b and c are true

- 39. A spring _____ when it is _____. This force is called _____.
1) elongates, compressed, mechanical force 2) elongates, deforming force, stretched
3) elongates, stretched, deforming force. 4) elongates, stretched, frictional force.**
- 40. When a comb is used on dry hair it can _____ bits of paper because of _____ force.
1) repel, magnetic 2) attract, electrostatic
3) repel, electrostatic 4) attract, magnetic**
- 41. Smoke is the example of
1) homogeneous medium 2) heterogeneous medium
3) both (1) and (2) 4) neither (1) nor (2)**
- 42. Tube light is the example of
1) point source of light 2) extended source of light
3) both (1) and (2) 4) neither (1) nor (2)**
- 43. Light is
1) visible and also makes objects visible on which it falls.
2) invisible but makes objects visible on which it falls.
3) invisible but becomes visible when it falls on an object.
4) sometimes visible and sometimes invisible but it always makes objects visible on which it falls.**
- 44. An object is said to be in _____ when it moves on its own axis or a round a fixed of centre
1) Oscillator motion 2) Random motion 3) Circular motion 4) Rectilinear motion**
- 45. To and fro motion of an object is
1) Vibratory motion 2) Circular motion 3) Rectilinear motion 4) Random**
- 46. The standard unit of length is []
1) metre 2) kilometer 3) millimetre 4) centimetre**
- 47. The beating of heart is a ___ motion (the heart beats are different when you are running or walking briskly or sitting idle or sleeping).
1) Periodic 2) Non-periodic 3) Random 4) Rectilinear**
- 48. A cyclist moves from O to D along the path as shown the distance covered by him is**



- 1) 16km 2) 20km 3) 3km 4) 5km
- 49. A body moves 6m due North, 8m due east and 10m vertically upwards the distance travelled by the body is
1) 34m 2) 10m 3) 18m 4) 24m**
- 50. The numerical ratio of displacement to distance is
1) always=1 2) always<1 3) always>1 4) may be ≤ 1**

CHEMISTRY (Q.NO.51 TO 65)

51. Choose the solvent that separates common salt and marble powder.
1) Turpentine oil 2) Water 3) Carbon disulphide 4) Benzene
52. Choose the correct statement:
1) sulphur is a non-volatile solid 2) sodium sulphate is a volatile solid
3) carbon disulphide is non-volatile 4) common salt is a volatile solid.
53. Mercury and alcohol can be separated by:
1) fractional distillation 2) filtration
3) separating funnel 4) sublimation
54. Which of the following is manmade fibre
1) Cotton 2) Wool 3) Silk 4) Rayon
55. Rain coats are used in _____ season.
1) Windy 2) Summer 3) Rainy 4) Winter
56. Silkworms are reared in round bamboo frames called
1) Reels 2) Chandrikas 3) Transverse threads 4) Looms
57. Di hydrogen monoxide is the formula of
1) H_2O_2 2) Water 3) Sodium Hydroxide 4) Carbon Monoxide
58. Evaporation is faster when
1) The air is not dry 2) temperature is low
3) There is no wind 4) the exposed surface is large
59. The process of conversion of water into water vapour is called
1) Melting 2) Sublimation 3) Condensation 4) Evaporation
60. Plants use _____ in photosynthesis
1) Carbon dioxide 2) Nitrogen 3) Sulphur dioxide 4) Oxygen
61. Which of the following is noble gas
1) Neon 2) Oxygen 3) Nitrogen 4) Carbon di oxide
62. _____ $^{\circ}C$ is called triple point of water
1) 0.01 2) 100 3) -4 4) 65
63. Water covers _____ percentage of the at the earth surface
1) 90 2) 75 3) 95 4) 40
64. _____ converts carbon dioxide into glucose in the presence of sunlight
1) Green plants 2) Animals 3) Humans 4) Cats
65. _____ use carbonates dissolved in sea water to make their shells
1) birds 2) elephants 3) marine animals 4) snakes

BIOLOGY (Q.NO.66 TO 80)

66. _____ are an excellent source of carotenoid antioxidants.
1) Onions 2) Carrots 3) sweet potatoes 4) Cabbage
67. Fruits are often preserved in _____
1) Sugar syrup 2) Honey 3) 1 or 2 4) None of these

- 68. Pickles are preserved by adding _____**
1) Salt 2) chilli powder 3) Oil 4) All of these
- 69. Onions contain _____ properties**
1) Anti -allergy 2) Antiviral 3) Anti histamine 4) All of these
- 70. The taste of food is based on _____**
1) Ingredients 2) Method of preparation
3) Culture practice 4) All of the above
- 71. The part of the plant in which seeds grow is :**
1) fruit 2) root 3) stem 4) tuber
- 72. These help in fixing the plant to the soil :**
1) branches 2) nodes 3) roots 4) shoots
- 73. An example of a plant which stores excess of food in the stem is :**
1) potato 2) coconut 3) papaya 4) turmeric
- 74. The food factories of a plant are :**
1) fruits 2) leaves 3) roots 4) nodes
- 75. Which of the following is not a type of organism in the food chain?**
1) Producer 2) Cons 3) Survivor 4) Decomposer
- 76. In the food chain, plants are the _____.**
1) Producers 2) Consumers 3) Decomposers 4) None of the above
- 77. What are the consumers that eat only plants, called?**
1) Carnivores 2) Herbivores 3) Omnivores 4) Decomposers
- 78. Which of the following vitamin helps your body to fight infection boosting your immune system?**
1) Vitamin A 2) Vitamin B 3) Vitamin C 4) Vitamin D
- 79. The part of tooth visible above the gum is known as**
1) Root 2) cavity 3) crown 4) plaque
- 80. Nose: Respiratory system:: Mouth :**
1) Respiratory system 2) Digestive system
3) Circulatory system 4) Nervous system