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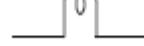
SECTION-A : PHYSICS

This section contains **15 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

1. What will happen to the magnitude of electric current if amount of charge flowing through the circuit is halved ?
   (1) Double
   (2) Four times
   (3) Becomes one-fourth
   (4) Half

2. If I is the current through a wire and e is the charge of electron, then the number of electrons pass in t seconds will be given by:

   (1) $\dfrac{Ie}{t}$
   (2) Ite

   (3) $\dfrac{e}{It}$
   (4) $\dfrac{It}{e}$

3. Match column I with column II and then choose the correct option given below:

   Column-I

   (a)

   (b)

   (c)

   (d)

   (e) Ω

   Column-II

   (p) Connecting wire

   (q) Bulb

   (r) Unit of resistance

   (s) Rheostat

   (t) Galvanometer

   (1) a-p, b-q, c-r, d-s, e-t
   (2) a-s, b-t, c-p, d-r, e-q
   (3) a-s, b-t, c-p, d-q, e-r
   (4) a-t, b-s, c-q, d-r, e-p

4. During thunderstorms :
   (1) Lightning is seen first
   (2) Thunder sound is heard first
   (3) Both of them are heard and seen simultaneously
   (4) No lightning and thunder sound is there

5. Which of the following instrument is used to study the speed of wind?
   (1) Anemometer
   (2) Speedometer
   (3) Ammeter
   (4) Manometer

6. Which of the following temperature scale does not have negative temperature readings?
   (1) Celsius scale
   (2) Fahrenheit scale
   (3) Kelvin scale
   (4) Question does not provide sufficient data or is vague

7. Digital thermometers use
   (1) Alcohol
   (2) Water
   (3) Mercury
   (4) None of these

8. Computer fans blow cool air on hot electronic components by
   (1) Evaporation
   (2) Forced convection
   (3) Radiation
   (4) Conduction

9. In which month the earth is farthest to sun
   (1) January
   (2) March
   (3) April
   (4) February

10. A star which appears blue will be-
    (1) As hot as sun
    (2) Cooler than sun
    (3) Very cold in deed
    (4) Much hotter than sun

11. Friction can be increased by
    (1) Making the surface rough
    (2) Increasing the area of contact
    (3) Both (1) and (2)
    (4) None of these

12. The walls of a dam are specially thickened at the base to
    (1) Withstand huge pressure use of water
    (2) Withstand earthquake
    (3) Withstand sound wave
    (4) None of these

13. When air expand suddenly
    (1) Its temperature decreases
    (2) It volume increases
    (3) It becomes heavier
    (4) It volume decreases

14. Which of the following will rise the highest
    (1) Air at 10°C
    (2) Air at 40°C
    (3) Air at 20°C
    (4) Air at -5°C

15. The zone of frequent earthquakes and volcanic eruptions is called
    (1) The land of earthquakes
    (2) The land of volcanic
    (3) The ring of fire
    (4) The restricted zone

SECTION-B : CHEMISTRY

This section contains **15 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

16. Which of the following is the least reactive metal?
    (1) Aluminium
    (2) Iron
    (3) Platinum
    (4) Calcium

17. Eutrophication takes place due to
    (1) Excess of dissolved O_2
    (2) High concentration of phosphorus nutrients in water
    (3) Increase is pH of soil
    (4) Dissolved fluorine

18. Which of the following is a volatile solid?
    (1) Chlorine
    (2) Fluorine
    (3) Bromine
    (4) Iodine

19. An element X reacts with dilute sulphuric acid to produce a gas Y which burns with a pop sound. The element X is likely to be
    (1) Zinc
    (2) Sulphur
    (3) Copper
    (4) Bromine

20. Ammonia is found in many household products, such as window cleaners. It turns red litmus blue. What is its nature?
    (1) Neutral
    (2) Basic
    (3) Acidic
    (4) None of the above

21. What will be the product of following reaction $MgSO_{4\ (aq)}$ + Cu
    (1) $CuSO_4$ + Mg
    (2) CuS + MgO
    (3) MgS + CuO
    (4) None of these

22. Nylon threads are made up of
    (1) Polyamide polymer
    (2) Polyethylene polymer
    (3) Polyvinyl polymer
    (4) Polyester polymer

23. Which of the following oxides is neither acidic nor basic?
    (1) CO_2
    (2) SO_2
    (3) SO_3
    (4) N_2O

24. Orlon is a polymer of
    (1) Tetrafluroethylene
   (2) Acrylonitrile
    (3) Ethanoic acid
    (4) Benzene

25. K + H_2O (Cold water)?
(1) No reaction
(2) KOH + H_2
(3) KOH +H_2O
(4) K_2O

26. Base
(1) Have Sour taste
(2) Turn blue litmus red
(3) Turn purple cabbage juice red
(4) Change turmeric colour to reddish brown

27. Nylon-66 is not a
(1) Condensation polymer
(2) Co-polymer
(3) Polyamide
(4) Homopolymer

28. Which of the following oxide is amphoteric in nature?
(1) SnO
(2) MgO
(3) MnO
(4) H_2O

29. World water day is celebrated on
(1) 25th March
(2) 22nd March
(3) 5th June
(4) 16th September

30. Carbonic acid
(1) It a strong acid
(2) Evolves CO on reacting with metals
(3) It a mineral acid
(4) All of these

SECTION-C : BIOLOGY

This section contains **15 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

31. The following diagram shows the interdependence of plants and animals in the environment and how those organisms interact with the environment.
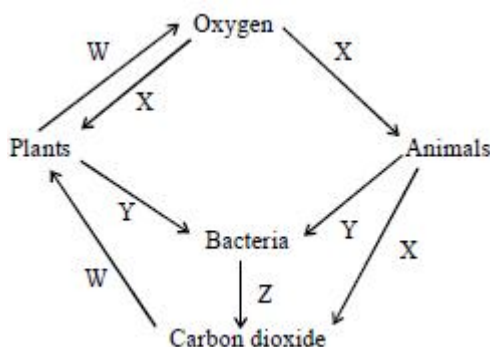
What process do the arrows labelled W, X, Y and Z represents ?

	Respiration	Photosynthesis	Decay
(1)	W	X	Y
(2)	W	X	Z
(3)	X	W	Z
(4)	X	W	Y

**32.** Consider the following four statements (a-d) about certain desert animals.
(a) Keep the body cool through panting
(b) They have a feathery coat and store a layer of fat under it.
(c) They excrete metabolic waste in form of uric acid.
(d) They live in burrows to block out mid day heat.
Which of the above statements for such animals are true?
(1) (a), (c) and (d)
(2) (b) and (c) only
(3) (c) and (d) only
(4) (a), (b) and (c)

33. This diagram shows a common food web in which energy and nutrients are transferred from organism to organism. Where does the original energy enters from in this foodweb ?
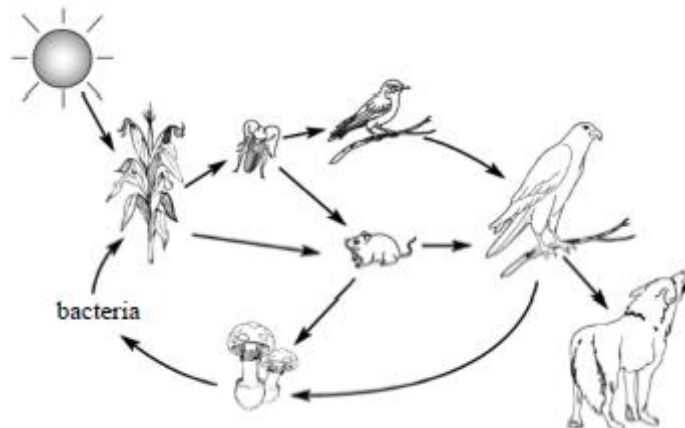
(1) The insect eating the plant
(2) Sunlight utilised by plant
(3) The soil filled with decayed matter
(4) The mushrooms and bacteria decomposing organic matter

34. The flowchart given below shows one of the pathway of glucose break-down.

Glucose $\xrightarrow{\text{In cytoplasm}}$ P $\xrightarrow{\text{In muscle cell}}$ Q + Energy
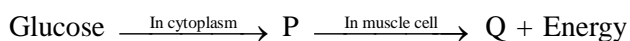
Identify P and Q.
(1) P-Ethanol, Q-Carbon dioxide
(2) P-Pyruvate, Q-Carbon dioxide
(3) P-Pyruvate, Q-Lactic acid
(4) P-Ethanol, Q-Pyruvate

35. Glycogen is
(1) Synthesised in liver, a source of energy, forms bile and lipase
(2) Disaccharide stored in liver, reacts with ammonia to form protein
(3) Synthesised in blood, stored in liver and muscles to provide glucose
(4) Polysaccharide synthesised and stored in liver.

36. Dental formula of a child is

(1) $\dfrac{2102}{2102}$

(2) $\dfrac{2120}{2120}$

(3) $\dfrac{2123}{2123}$

(4) $\dfrac{2111}{2111}$

37. Sciophytes are
(1) Plants used for scientific studies
(2) Shade - loving plants
(3) Metabolically highly active plants
(4) Light - loving plants

38. Phagocytosis is carried out by
(1) RBCs
(2) WBCs
(3) Platelets
(4) All the three

39. Look at the diagram given below. In this diagram 'A' shows
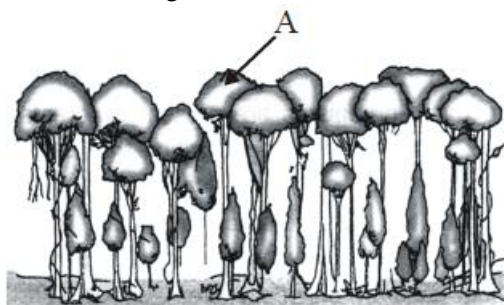
(1) Canopy
(2) Trunk
(3) Understorey
(4) None of these

40. Pedology is the study of
(1) Soil
(2) Rocks
(3) Locomotion of animals
(4) Crop diseases

41. Match different terms in column I with their related description in column II and select the correct option from the given codes.

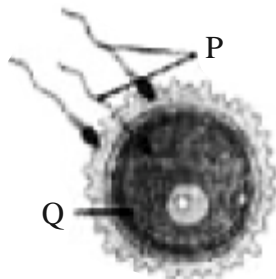| Column I	Column II
(a) Manuring	(i) Loosening and turning of soil
(b) Threshing	(ii) Adding nutrients to the soil
(c) Tilling	(iii) Crushing big lumps of soil
(d) Levelling	(iv) Separation of grain from the rest of the plant

(1) (a)-(i), (b)-(iii), (c)-(ii), (d)-(iv)   (2) (a)-(ii), (b)-(i), (c)-(iv), (d)-(iii)
(3) (a)-(ii), (b)-(iv), (c)-(i), (d)-(iii)   (4) (a)-(iv), (b)-(iii), (c)-(i), (d)-(ii)

42. Refer to the given figure and select the incorrect statement regarding this.

(1) P represents the human male gamete which consists of head, middle-piece and tail.
(2) Q represents the human female gamete which is a single cell.
(3) The process shown in the figure is fertilisation.
(4) The resulting structure formed after the shown process is foetus.

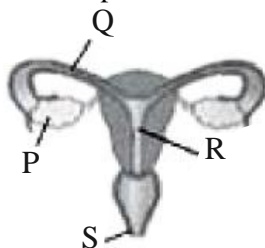**43.** Which of the following is a mismatched pair?

Endocrine gland		Hormone
(1) Pituitary	-	ACTH
(2) Testes	-	Testosterone
(3) Pancreas	-	Calcitonin
(4) Pineal gland	-	Melatonin

44. Refer to the given figure and select the labelled part where implantation of embryo ovum takes place.

(1) P   (2) Q
(3) R   (4) S

45. Which of the following is a correct sequence?
(i) Cell   (ii) Tissue
(iii) Organ system   (iv) Organ
(v) Organism

(1) (i) - (ii) - (iv) - (iii) - (v)   (2) (i) - (iii) - (iv) - (ii) - (v)
(3) (i) - (v) - (iv) - (iii) - (ii)   (4) (i) - (v) - (iii) - (ii) - (iv)

SECTION-D : MATHEMATICS

This section contains **15 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

46. If $\dfrac{1}{x}:\dfrac{1}{y}:\dfrac{1}{z} = 2:3:5$ then x : y : z is

(1) 2 : 3 : 5   (2) 15 : 10 : 6
(3) 5 : 3 : 2   (4) 6 : 10 : 15

47. $(a + b) : (a - b) = 15 : 1$, find the value of $a^2 - b^2$

(1) $\dfrac{15b^2}{49}$

(2) $2b^2$

(3) $\dfrac{13b^2}{49}$

(4) $\dfrac{17b^2}{8}$

48. What is the value of expression $\dfrac{1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9}{1+2+3+4+5+6+7+8+9}$?

(1) 40320   (2) 8064

(3) 403200   (4) 75676

49. If 26% of 450 - x = 12% of 150, then identify x

(1) 101   (2) 135

(3) 89   (4) 99

50. If $A : B = 5 : 6$, $B : C = 2 : 5$, $C : D = 6 : 11$ then $A : D =$
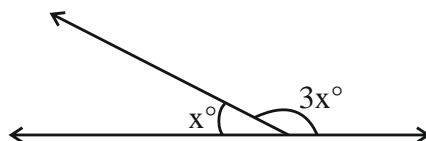
(1) 5 : 11   (2) 2 : 11

(3) 3 : 11   (4) 15 : 32

51. If 'A' is the 5th prime number and 'B' is the 7th prime number, then $B - A = ?$

(1) 6   (2) 8

(3) 12   (4) 2

52. $x + y = 10$, $y + z = 8$ and $z + x = 12$ then identify the true statement.

(1) $x = 7$ (2) $y = 2$

(3) $z = 6$ (4) $y = 4$

53. What are the magnitude of the angles shown ?

(1) 40°, 135°   (2) 45°, 130°

(3) 45°, 135°   (4) 30°, 150°

54. A square S_1 encloses another square S_2 in a manner that the corners of S_2 is at the midpoints of the sides of S_1. If A_1 is the area of S_1 and A_2 is the area of S_2 then

(1) $A_1 = A_2$ (2) $A_2 = 2A$

(3) $A_1 = 2A_2$ (4) $A_1 = 4A_2$

55. $\left(\dfrac{5^x + 5^{x+1}}{5^{x+1} - 5^x} \right)$ is equal to

(1) 6/5   (2) $\dfrac{2}{3}$

(3) $\dfrac{3}{2}$ (4) $\dfrac{5}{6}$

56. Find a single discount equivalent to two successive discounts of 10% and 20%

(1) 25%   (2) 28%

(3) 30%   (4) 29%

57. The sum of the ages of a father and his son is 56 years. After 4 year, the age of father will be three times of his son. find the fathers age

(1) 42   (2) 43

(3) 44   (4) 45

58. If $A : B = \dfrac{1}{2} : \dfrac{3}{8}$, $B : C = \dfrac{1}{3} : \dfrac{5}{9}$ and $C : D = \dfrac{5}{6} : \dfrac{3}{4}$, then the ratio $A : B : C : D$ is

(1) 4 : 6 : 8 : 102   (2) 6 : 4 : 8 : 10

(3) 6 : 8 : 9 : 104   (4) 8 : 6 : 10 : 9

59. A and B can do a piece of work in 8 days, B and C in 12 days while A and C can do it in 16 days. In how many days they do it together ?

(1) $7\dfrac{5}{13}$ days   (2) $6\dfrac{3}{4}$ days

(3) $5\dfrac{2}{3}$ days   (4) $4\dfrac{1}{2}$ days

60. A simple interest of Rs. 2500 earned by investing a sum of money of 13 years. The interest rate is charged 4% in the first 3 years, 5% in the next 4 years and 8% beyond 7 years. Find the sum of money invested.

(1) Rs. 4500   (2) Rs. 3125

(3) Rs. 6000   (4) Rs. 8000

SECTION-E : IQ (MENTAL ABILITY)

This section contains **20 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

61. Choose the figure which is different from the rest

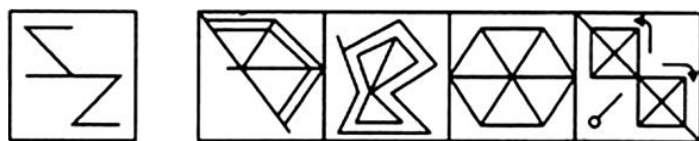 (A)   (B)   (C)   (D)   (E)

(1) A   (2) B   (3) C   (4) D

62. Choose the alternative which is closely resembles the mirror image of the given combination.

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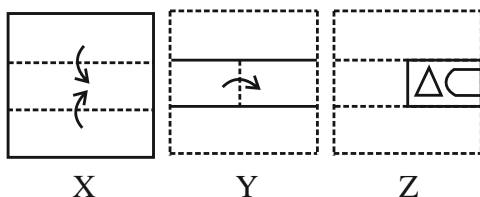(1) AꟼIOIИIAЯAꓕ   (2) AIOIꟼИIAЯAꓕ   (3) AIOIꟼꓕAЯAIИ   (4) AꟼIOIИIAЯAꓕ

63. Find out the alternative figure which contains figure (X) as its part.

  (X)   (A)   (B)   (C)   (D)

(1) A   (2) B   (3) C   (4) D

64. Choose a figure which would most closely resemble the unfolded form of Figure (Z).

  X   Y   Z

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

65. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figure :   Answer Figure :

(A)   (B)   (C)   (D)   (E)   (1)   (2)   (3)   (4)   (5)
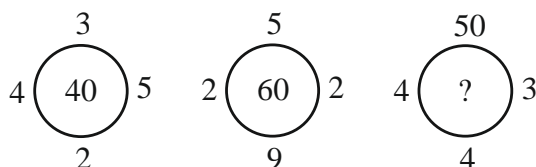
(1) 1   (2) 2   (3) 3   (4) 4

66. Find the number which will replace the ?

(1) 80   (2) 800   (3) 808   (4) 88

67. If you write down all the numbers from 1 to 100, then how many times do you write 3 ?
(1) 11   (2) 18   (3) 20   (4) 21

68. **Directions :** For the **Assertion (A)** and **Reason (R)** below, choose the correct alternative
Assertion (A) : Silver is not used to make electric wires.
Reason (R) : Silver is a bad conductor.
(1) Both **(A)** and **(R)** are true and **(R)** is the correct explanation of **(A)**.
(2) Both **(A)** and **(R)** are true but **(R)** is NOT the correct explanation of **(A)**.
(3) **(A)** is true but **(R)** is false.
(4) **(A)** is false but **(R)** is true.

69. There are six persons A. B, C, D, E and F. C is the sister of F. B is the brother of E's husband. D is the father of A and grandfather of F. There are two fathers, three brothers and a mother in the group. Who is the mother ?
(1) A   (2) B   (3) C   (4) E

70. In the following question select the one which is different from the other three responses .
(1) DEB   (2) RTP   (3) HIF   (4) NOL

71. In a certain code language,
'134' means 'good and tasty', '478' means 'see good pictures' and '729' means 'pictures are faint'.
Which of the following digits stands for 'see'?
(1) 9   (2) 2   (3) 1   (4) 8

72. A man walks 5 km toward south and then turns to the right. After walking 3 km he turns to the left and walks 4 km. And then he goes back 10 km straight. Now in which direction is he from the starting place ?
(1) South-East   (2) North-West   (3) South   (4) West

73. Arrange the words given below in a meaningful sequence.
1. Presentation   2. Recommendation   3. Arrival   4. Discussion   5. Introduction
(1) 5, 3, 4, 1, 2   (2) 3, 5, 4, 2, 1   (3) 3, 5, 1, 4, 2   (4) 5, 3, 1, 2, 4

74. While travelling in a train, you observe some college students pulling the alarm chain simply to get down at their desired point. You would :
(1) With the help of some passengers, check them from doing so
(2) Let them pull the chain but check them from detraining.
(3) Inform the guard of the train as soon as it stops.
(4) Keep quiet and do nothing

75. **Statements:**

(i) Some mangoes are yellow. (ii) Some tixo are mangoes.

Conclusions:

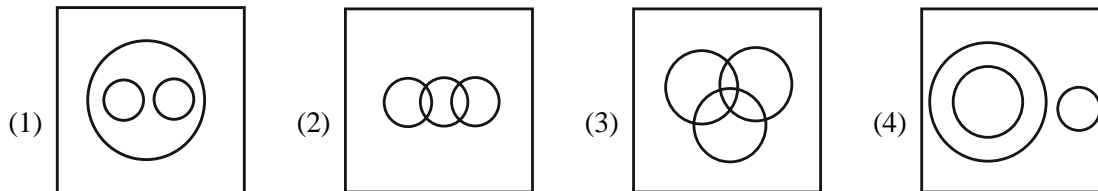(i) Some mangoes are green. (ii) Tixo is a yellow.

(1) Only conclusion (i) follows (2) Only conclusion (ii) follows

(3) Either (i) or (ii) follows (4) Neither (i) nor (ii) follows

76. Identify the diagram that best represents the relationship among the given classes.

Primary colors, Red, Blue, Magenta

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

77. In a row of boys, If A who is 10th from the left and B who is 9th from the right interchange their positions, A becomes 15th from the left. How many boys are there in the row ?

(1) 23 (2) 31 (3) 27 (4) 28

78. **INSTRUCTION :** P, Q, R, S, T, U, V and W are sitting round the circle and are facing the centre:

P is second to the right of T who is the neighbour of R and V.

S is not the neighbour of P.

V is the neighbour of U.

Q is not between S and W. W is not between U and S.

Then Who is sitting opposite to U ?

(1) Q (2) P (3) R (4) W

79. Find the next number in the given sequence?

1, 2, 6, 21, 88, ?

(1) 445 (2) 365 (3) 296 (4) 194

80. What will come in place of the question mark (?) in the following number series?

312, 231, 295, ? , 282, 257

(1) 210 (2) 25 (3) 246 (4) 279

SHARP_CLASS- VIII

ANSWER KEY   TEST DATE:

PHYSICS	Q. No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15					
	Ans.	4	4	3	1	1	3	4	2	1	4	1	1	2	2	3					
CHEMISTRY	Q. No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30					
	Ans.	3	2	4	1	2	4	1	4	2	2	4	4	1	2	3					
BIOLOGY	Q. No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45					
	Ans.	4	1	2	3	4	1	2	2	1	1	3	4	3	3	1					
MATHS	Q. No.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60					
	Ans.	2	1	2	4	2	1	1	3	3	3	2	3	4	1	2					
MAT	Q. No.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
	Ans.	4	4	4	2	4	2	3	3	4	2	4	2	3	1	4	2	1	2	1	3