Phase - II
M.M:60

## OFFLINE EXAMINATION (PHASE-II)

Name: $\qquad$ Reg. No. $\qquad$ Mobile No. $\qquad$
General Instructions:

1. Duration of the examination is 60 Minutes. Question Paper contains 60 questions with maximum 60 marks.
2. There will be negative marking in Phase - II, i.e. $1 / 4$ mark will be deducted for each incorrect answer.
3. Use of gadgets is not allowed.
4. Students must abide by the instructions issued during the examination by the invigilator or the centre incharge.
5. Before attempting the question paper ensure that it contains all pages \& no question is missing
6. Immediately fill the particulars on this page of the test booklet and OMR with BLACK ballpoint pen only. Use of pencil is strictly prohibited.
7. Darken the bubbles completely. Do not put a tick $\nabla$ or a cross $\boldsymbol{\otimes}$. Fill the bubbles completely.
8. Half -filled or over-filled bubbles will not be read by the software \& liable to be rejected.

Correct Method


Student's Signature

Wrong Method


Invigilator’s Signature

## English (15 Marks)

## Choose the most appropriate options (Q1 to Q11):

Q1. The plural form of mouse is $\qquad$ .
(a) mouses
(b) mouse
(c) mice
(d) None of these

Q2. What is the collective noun of fish?
(a) A shoal of fish
(b) A swarm of fish
(c) A heard of fish
(d) A gang of fish

Q3. Identify the Pronoun of the underlined word:
Kamaldeep who is my classmate has shifted to our neighbourhood.
(a) Reflexive Pronoun
(b) Relative Pronoun
(c) Emphatic Pronoun
(d) Indefinite Pronoun

Q4. I did not see $\qquad$ from my school.
(a) everybody
(b) either
(c) somebody
(d) anybody

Q5. Find out which part of the given sentence has an error.
The Director of (A) Sharma Coaching Services (B) has given its consent (C) to join the meeting (D)
(a) (B)
(b) (D)
(c) (A)
(d) (C)

Q6. This film is awful. It's $\qquad$ film I have ever seen.
(a) the best
(b) the worst
(c) the worse
(d) worse than

Q7. Ramu and Ravi are good friends, the $\qquad$ is a talented dancer.
(a) latest
(b) later
(c) latter
(d) last

Q8. Choose the tense of the verb in the given sentence: He had been swimming for an hour.
(a) Present Perfect Continuous Tense
(b) Past Perfect Tense
(c) Past Perfect Continuous Tense
(d) Future Perfect Continuous Tense

Q9. I had gone to bed when my friend $\qquad$ on me.
(a) has called
(b) had called
(c) calls
(d) called

Q10. The wolf sprang $\qquad$ the goat.
(a) on
(b) upon
(c) at
(d) in

Q11. His father will return $\qquad$ a month.
(a) in
(b) of
(c) to
(d) on

Choose the options (Q12 and Q13) that show the correct indirect speech versions:
Q12. The actor said, "Alas! I have failed to win the Filmfare Award."
(a) The actor said that alas he had failed to win the Filmfare Award.
(b) The actor exclaimed with pleasure that he has failed to win the Filmfare Award.
(c) The actor exclaimed with regret that he had failed to win the Filmfare Award.
(d) The actor regretted that he failed to win the Filmfare Award.

Q13. Reema said to me, "Will you attend the seminar?"
(a) Reema asked me will you attend the seminar.
(b) Reema said to me will you attend the seminar.
(c) Reema asked me whether you would attend the seminar.
(d) Reema asked me whether I would attend the seminar.

Q14. The Regional Competition Awards have been announced and our school music club
$\qquad$ the first prize.
(a) has been won
(b) had won
(c) was winning
(d) has won

Q15. $\qquad$ of these apples will you have?
(a) What
(b) Which
(c) Who
(d) That

## Maths ( $\mathbf{1 5}$ Marks)

Q16. The ratio of milk and water in a mixture of 78 litres is $8: 5$. If this ratio becomes $3: 4$ on adding some water to the mixture, then the quantity of the water further added to
(a) 34 litres
(b) 24 litres
(c) 22 litres
(d) 28 litres

Q17. The choice of the fruits of 44 students in a class are as follows:
A,O,B,M,A,G,B,G,A,G,B,M,A,G,M,A,B,G,M,B,A,O,M,O,G,O,B,O,
M,G,A,A,B,M,O,M,G,B,A,M,O,M,O,O, where A,B,G,M and $\mathbf{O}$ stand for the fruits Apple, Banana, Grapes, Mango and Orange respectively.
Which two fruits are liked by an equal number of students?
(a) A and M
(b) M and B
(c) B and O
(d) B and G

Q18. Which of the following represents the number line for operation $0-(-2)-(-3)$ ?
(A)

(B)

(C)

(D)


Q19. In the figure given below, if the fraction represented by shaded parts in Figure (B) is added to the fraction represented by shaded parts of Figure (A), the result in its simplest form is:


Figure (A)
Figure (B)
(a) $7 / 8$
(b) $9 / 16$
(c) $5 / 8$
(d) $11 / 16$

Q20. Perpendicular bisector of a chord of a circle
(a) passes through the centre.
(b) does not pass through the centre.
(c) is not a line segment.
(d) none

Q21. A hall is 16.5 m long and 10 m wide. A square carpet of side 11 m is laid on its floor. Find the area of floor which is not carpeted.
(a) $52 \mathrm{~m}^{2}$
(b) $38 \mathrm{~m}^{2}$
(c) $48 \mathrm{~m}^{2}$
(d) $44 \mathrm{~m}^{2}$

Q22. Which one of the following triangles is practically not possible?
(A)

(B)

(C)

(D)


Q23. Which of the following statements is not true?
(a) $0+0=0$
(b) $0-0=0$
(c) $0 \times 0=0$
(d) $1 \div 0=0$

Q24. A number 4805 a 9 b 1 is divisible by 3 where a and b stand for digits of the number. If the sum of all digits is 36 , then the product of $a$ and $b$ cannot be:
(a) 0
(b) 8
(c) 15
(d) 18

Q25. Choose the correct option:
Any drawing (straight or non-straight) done without lifting the pencil may be a P.Q is the one that does not cross itself. A curve is said to be $\mathbf{R}$, if its ends are joined. $\mathbf{S}$ is a simple closed curve made up of line segments.

|  | $\mathbf{P}$ | $\mathbf{Q}$ | R | S |
| :--- | :--- | :--- | :--- | :--- |
| (a) | Curve | Open | Curve | Closed line |
| (b) | Line | Curve | Open | Line |
| (c) | Curve | Simple curve | Closed | Polygon |
| (d) | Curve | Closed curve | Open | Circle |

Q26. On a wall of dimensions 10.5 m long and 8.5 m wide, a square shaped wall poster is stuck at the centre whose measure is 2.5 m . If the remaining part of the wall to be painted with pink colour costing Rs. 12 per sq. m , the amount to be spent is
(a) Rs. 89.25
(b) Rs. 996
(c) Rs. 830
(d) Rs. 12

Q27. Prateek, Divyanshu and Manish jog daily in the morning around a rectangular park. They take 3 minutes, 10 minutes and 5 minutes respectively to take one complete round. In one morning, all of them start at the same time from the same point and jog in the same direction.
(A) After how many minutes will all three of them meet again?
(B) How many times will they meet together during the 1 hour period?
(A)
(a) 20 minutes
(b) 25 minutes
(c) 30 minutes
(d) 60 minutes 1 time

Q28. Raj, Gaurav and Amit are fast friends. They started painting a wall. Raj paints $2 / 15$ of the wall, Gaurav paints $1 / 24$ of the wall and Amit paints $3 / 10$ of the wall. Read the statements related to above situation and select the correct option given below:
Statement 1: Gaurav painted least portion of the wall
Statement 2: 1/18 portion of wall is unpainted
(a) Both Statement 1 and Statement 2 are true.
(b) Both Statement 1 and Statement 2 are false.
(c) Statement 1 is true but Statement 2 is false.
(d) Statement 1 is false but Statement 2 is true.

Q29. Tell, which of the following is not a simple closed figure
(A)

(B)

(C)

(D)


Q30. In an examination, each student is required to answer 50 questions, 5 marks are given for each correct answer and 3 marks are deducted for every wrong answer. If Geeta answered 45 questions correctly and Seeta answered 42 questions correctly, what is the difference in the total marks obtained by them?
(a) 15
(b) 210
(c) 24
(d) 186

## Science (15 Marks) Phy.+Chem. + Bio.

## Physics (5 Marks)

Q 31 . A simple pendulum oscillates between point P and Q shown in figure and its time period is T . If time taken to go from R to Q is t , which of the following relation is correct ?

(a) $t=T$
(b) $t=T / 2$
(c) $t=T / 4$
(d) $t=T / 8$

Q32. Statement-I: To mark poles of an unmarked magnet we do not require anything.
Statement-II: The poles of a bar magnet can be determined using only another marked magnet.
(a) Both statements I and II are correct.
(b) Both statement I and II are incorrect.
(c) Statement I is correct but statement II is incorrect.
(d) Statement I is incorrect but statement II is correct.

Q33. The axis of earth's magnetic field is inclined with the geographical axis at an angle of about:
(a) $5^{\circ}$
(b) $15^{\circ}$
(c) $25^{\circ}$
(d) $35^{\circ}$

Q34. The two electrical circuits given here consist of similar bulbs and dry cells. Which of the following statements about the given circuits is correct?

(a) The bulbs in the circuit Q are brighter than those in circuit P when all the switches are closed.
(b) If the middle bulb in circuit Q blows off, at least one bulb will still be able to light up.
(c) All the bulbs in circuit P will light up when the switch is open.
(d) One bulb in circuit P will light up when the switch is open.

Q 35. MKS system of units is similar to:
(a) CGS system
(b) FPS system
(c) SI system
(d) None of these

## Chemistry (5 Marks)

Q 36. Ram set up 2 experiments, as shown in diagram below. He placed both set-ups in sunlight for 9 hours on noting down his observations for both set-ups, he found that there was more oxygen collected in test tube X as compared to test tube Y . What conclusion could he best draw from this experiment?

(a) The rate of photosynthesis increases when there is more carbon-dioxide.
(b) The rate of photosynthesis decreases when there is more carbon-dioxide.
(c) Baking Soda is required for photosynthesis.
(d) Carbon-dioxide is required by plants for photosynthesis.

Q37. Study the given flow chart carefully.
Identify the 4 groups of material $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D


|  | A | B | C | D |
| :--- | :--- | :--- | :--- | :--- |
| (a) | Metals | Ceramics | Plastics | Glass |
| (b) | Ceramics | Glass | Metals | Plastics |
| (c) | Plastics | Metals | Glass | Ceramics |
| (d) | Metals | Glass | Ceramics | Plastics |

Q38. The metal, which gives hydrogen on treatment with acid as well as sodium hydroxide is
(a) Gold
(b) Copper
(c) Zinc
(d) Silver

Q 39. Ram asked for a glass of water from Mohan. He gave him a glass of ice cold water. Ram observed some water droplets on the outer surface of glass and asked Mohan how these droplets of water were formed? Which of the following should be Mohan's answer?
(a) Evaporation of water from the glass
(b) Water that seeped out from the glass
(c) Evaporation of atmospheric water vapour
(d) Condensation of atmospheric water vapour

Q40. When we filter a mixture of sand and water, $\qquad$ is filtrate and $\qquad$ is residue.
(a) Sand, Water
(b) Sand, Sand
(c) Water, Water
(d) Water, Sand

## Biology (5 Marks)

Q41. The organs for locomotion in an earthworm are:
(a) segments
(b) slime
(c) muscles
(d) setae

Q42. Match Column-I with Column-II in context of the given figure and select the correct option from the code given below.


|  | $\|c\|$ <br> Column I <br> (Nutrient deficient in diet) |  | Column II <br> (Effect on body) |
| :--- | :--- | :---: | :--- |
| (a) | Vitamin D | (i) | Bending of bones of part S |
| (b) | Iodine | (ii) | Swelling in part R |
| (c) | Vitamin A | (iii) | Swelling of part Q |
| (d) | Proteins | (iv) | Improper functioning of part P |

(a) (a)-(i), (b)-(iii), (c)-(iv), (d)-(ii)
(b) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)
(c) (a)-(iv), (b)-(i), (c)-(iii), (d)-(ii)
(d) (a)-(iii), (b)-(ii), (c)-(iv), (d)-(i)

Q 43. In which plant does the stem perform the function of a leaf?
(a) Bougainvillea
(b) Onion
(c) Cacti
(d) Potato

Q 44. Refer the given figure of different parts of a typical flower and select the correct statements regarding it.

(i) After pollination, ' $S$ ' swells up and changes into a fruit and ' $R$ ' changes into a seed.
(ii) ' P ' contains pollen grains.
(iii) The pollen grains are transferred from ' Q ' to ' P ' in self-pollination.
(iv) ' $U$ ' is brightly coloured and scented to attract insects that help in reproduction.
(v) Different flowers have ' T ' of different colours.
(vi) ' P ', ' V ' and ' S ' form the innermost part of a flower called pistil.
(a) (i), (ii), (iv) and (vi)
(b) (i), (iii), (v) and (vi)
(c) (ii) and (v)
(d) (iii), (iv) and (vi)

Q45. The Milky liquid that oozes when you break a milkweed or banyan leaf is
(a) stored food
(b) a plant waste
(c) a plant tissue
(d) the equivalent of blood in plants

## Reasoning (15 Marks)

Q46. Direction : What will be the next number ?
$6,18,3,21,7,56$,
(a) 8
(b) 9
(c) 63
(d) 64

Q47. Direction : What will be the next term ?
Y, B, T, G, O, ?
(a) N
(b) M
(c) L
(d) K

Q48. If 'tee see pee' means 'Drunk fruit juice', 'see kee lee' means 'Juice is sweet' and 'lee ree mee' means 'He is intelligent', which word in that language means 'sweet'?
(a) see
(b) kee
(c) lee
(d) pee

Q49. Direction: In the following question find out the alternative which will replace the question mark.
Parts : Strap :: Wolf : ?
(a) Fox
(b) Animal
(c) Wood
(d) Flow

Q50. Find the pair which is different from other :
(a) Cows and Buffaloes
(b) Cock and Hen
(c) Horse and Mare
(d) Dogs and Bitch

Q 51. A man is performing yoga with his head down and legs up. His face is towards the west. In which direction will his left hand be ?
(a) North
(b) South
(c) East
(d) West

Q 52. If (i) M is brother of N
(ii) B is brother of N , and
(iii) M is brother of D .

Then which if the following statement is definitely true?
(a) N is brother of B
(b) N is brother of D
(c) M is brother of B
(d) None of these

Q53. Which one will replace the question mark?

(a) 36
(b) 48
(c) 38
(d) 30

Q54. Direction: In the following question the given equation becomes correct due to the interchange of two signs. One of the four options under in specifies the interchange of signs in the equations which when made will make the equation correct. Find the correct option.
$9+5 \div 4 \times 3-6=12$
(a) + and $\times$
(b) $\div$ and $x$
(c) $\div$ and -
(d) + and -

Q55. The reflex angle between the hands of a clock at $10: 25$ is :
(a) $180^{\circ}$
(b) $192.5^{0}$
(c) $195^{0}$
(d) $197.5^{0}$

Q56. Direction: In the question given below contains three elements. These elements may or may not have some inter linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c), (d). You have to indicate the group of element which correctly fits into the diagram.
Men, Rodents and Living beings ?

(a) a
(b) b
(c) c
(d) d

Q57. Direction: In the question consists of the figures marked (a), (b), (c), (d) and (e) called the Problem Figures followed by four other figures marked $1,2,3$ and 4 called the Answer Figures. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.

Problem Figures :


Answer Figures :

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

Q58. Direction: In the question consists of two sets of figures. Figures (a), (b), (c) and (d) constitute the Problem Set while figures 1,2,3 and 4 constitute the Answer Set. There is a definite relationship between figures (a) and (b). Establish a similar relationship between figures (c) and (d) by selecting a suitable figure from the Answer Set that would replace the question mark (?) in figure.

Problem Figures :


Answer Figures :

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

Q59. How many $29^{\text {th }}$ February are in 400 consecutive years?
(a) 96
(b) 97
(c) 98
(d) 100

Q60. The maximum gap between two successive leap years is ?
(a) 1
(b) 2
(c) 4
(d) 8


