

## 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 $\square$ or across $\boldsymbol{\otimes}$.Fill the bubbles completely.
8. Half -filled or over-filled bubbles will not be read by the software \&liable to be rejected.


Student's Signature

Wrong Method


Invigilator's Signature

## ENGLISH ( 15 MARKS)

Direction for Q1 and Q2: Fill in the blanks with the correct Prepositions:
Q1. There is no hindrance $\qquad$ his going there.
A) over
B) at
C) to
D) on

Q2. The problem $\qquad$ housing
$\qquad$ India is a complex one.
A) about, in
B) of, in
C) in, of
D) for, in

Q3. Choose the appropriate question tag:
He's still playing, $\qquad$ ?
A) is he
B) Isn't he
C) do he
D) None of these

Q4. Identify the underlined word:
He'll catch the early train.
A) Adverb
B) Adjective
C) Pronoun
D) None of these

Q5. Fill in the blank with the correct Adjective:
That was $\qquad$ examination. I have ever written.
A) the less difficult
B) the least difficult
C) less
D) None of these

Direction: (Q6 - Q9) Fill in the blanks with a suitable option:
Q6. I suppose you $\qquad$ the latest news. Pintoo $\qquad$ Kavita yesterday.
A) hear, marry
B) heard, married
C) have heard, married
D) are hearing , was married

Q7. Please be quiet. I $\qquad$ .
A) was cooking
B) am cooking
C) cooked
D) None of these

Q8. This team of players $\qquad$ dedicated.
A) are
B) has
C) have
D) is

Q9. The long fairy tales that she narrated
$\qquad$ interesting.
A) had
B) was
C) were
D) None of these

Q10. Choose the correct option that expresses the given sentence in Passive Voice:

Do not ill-treat the poor.
A) The poor should be ill-treated.
B) Let the poor not be ill-treated.
C) You should not be treating like this with the poor.
D) None of these

Q11. Fill in the blank with the correct Pronoun:

She has gone to Bangalore, $\qquad$ is her birth place.
A) whom
B) this
C) who
D) which

## Direction for Q12 and Q13: Select

 one option which best expresses the same sentence in Indirect Speech.Q12. He said to his secretary, "Why don't you carry out orders exactly? Remember if you don't, you will be punished."
A) He asked his secretary why he did not carry out orders he would be punished.
B) He asked his secretary why he did not carry out orders exactly, he warned him that if he did not carry out orders he would be punished.
C) He asked his secretary why he did not carry out orders exactly, he had warned him that if he did not (carry out orders) he would be punished.
D) He asked his secretary why he did not carry out orders exactly, he warned him that if he did not carry out orders he would punished.

Q13. She said, "Oh! What a lovely dress."
A) She exclaimed with admiration that it was a lovely dress.
B) She exclaimed with regret that it was a lovely dress.
C) She exclaimed with surprise that he had a lovely dress.
D) None of these

Q14. Identify the type of Pronoun:
All were waiting for the announcement.
A) Emphatic Pronoun
B) Indefinite Pronoun
C) Possessive Pronoun
D) Reflexive Pronoun

Q15. Fill in the blank with the appropriate Interjection:
$\qquad$ I spilled my coffee all over the table.
A) Aww!
B) Oops!
C) Uh!
D) Phew!

## MATHEMATICS (15 MARKS)

Q16. If $\frac{10}{3} \times 3^{x}-3^{x-1}=81$, then the value of $x$ is:
A) 2
B) 1
C) 3
D) 0

Q17. The mean of $p, q$ and $r$ is the same as the mean of $\mathrm{q}, 2 \mathrm{r}$ and s . Which of the following is correct?
A) $p=q=r$
B) $q=r+s$
C) $q=r$
D) $p=r+s$

Q18. A man sold 18 cots for Rs 16800 , gaining thereby the cost price of 3 cots. The cost price of a cot is:
A) Rs 650
B) Rs 700
C) Rs 750
D) Rs 800

Q19. In the given diagram, ABCD is a rhombus, AEC and BED are straight lines then $\mathrm{p}+\mathrm{q}+\mathrm{r}+\mathrm{s}+\mathrm{t}=$ ?
A) $200^{\circ}$
B) $270^{\circ}$
C) $360^{\circ}$
D) $540^{\circ}$


Q20. In the given figure, find $\angle X$
A) $120^{\circ}$
B) $110^{\circ}$
C) $115^{\circ}$
D) $125^{\circ}$


Q21. The marked price is $40 \%$ above the CP. If there is a discount of $20 \%$, find the profit \%. If goods marked at Rs 5600 are sold in the similar manner, find the actual profit.
A) $50 \%$, Rs 400
B) $12 \%$, Rs 480
C) $40 \%$, Rs 38
D) $25 \%$, Rs 625

Q22. The cost of 3 apples and 4 oranges is ₹ 93 . If the cost of 2 apples exceed the cost of an orange by ₹ 18 , then find the cost of 4 apples and 6 oranges.
A) ₹ 132
B) ₹ 140
C) ₹ 135
D) None of these

Q23. A semicircle is drawn on a side of a square measuring 14 cm . The ratio between the area of the shaded part and the square is:
A) $7: 22$
B) $17: 28$
C) $\Pi: 2$
D) $7: \Pi \quad 14 \mathrm{~cm}$


Q24. What should be taken away from $\left(3 x^{2}+2 y^{2}-5 x y-25\right)$ to get $\left(-x^{2}-\right.$ $\left.y^{2}+2 x y+10\right)$ ?
A) $4 x^{2}+3 y^{2}+7 x y-35$
B) $-4 x^{2}-3 y^{2}+7 x y-35$
C) $4 x^{2}-3 y^{2}+7 x y+35$
D) $4 x^{2}+3 y^{2}-7 x y-35$

Q25. Which of the following rules of Congurency states that $\triangle \mathrm{PQR}$ is congurent to $\triangle \mathrm{ABC}$.

A) SSS Rule
B) SAS Rule
C) ASA Rule
D) RHS Rule

Q26. The average age of 3 girls is 20 years and their ages are in the proportion 3:5:7. The age of the youngest girl is:
A) 8 years
B) 6 years
C) 12 years
D) 20 years

Q27. 12 women can weave 60 baskets in 3 days working 4 hours a day. How many women are required to weave 100 baskets in 6 days working 5 hours a day?
A) 8
B) 10
C) 14
D) 9

Q28. The radius of the wheel of a vehicle is 70 cm . The wheel makes 10 revolutions in 5 seconds. The speed of the vehicle is:
A) $29.46 \mathrm{~km} / \mathrm{h}$
B) $36.25 \mathrm{~km} / \mathrm{h}$
C) $31.68 \mathrm{~km} / \mathrm{h}$
D) $32.72 \mathrm{~km} / \mathrm{h}$

Q29. The rational number obtained by subtracting $-\frac{2}{3}$ from the product of $-\frac{7}{3}$ and additive inverse of $\frac{2}{3}$ is:
A) $\frac{5}{3}$
B) $\frac{18}{19}$
C) 1
D) $\frac{20}{9}$

Q30. In the fig., ABCD is a square with $\mathrm{BE}=\mathrm{BF}, \mathrm{AB}=(7 \mathrm{t}-6) \mathrm{cm}$ and $\mathrm{AD}=(2 \mathrm{t}+9) \mathrm{cm}$. Based on this information, find the value of $t$ and the angles x and y respectively.
A) $5,60^{\circ}, 80^{\circ}$
B) $3,67.5^{\circ}, 22.5^{\circ}$
C) $5,70^{\circ}, 70^{\circ}$
D) $3,63^{\circ}, 75^{\circ}$


## PHYSICS (5 MARKS)

Q31. The numerical value at which the Fahrenheit and Kelvin Scale coincides is $\qquad$ .
A) 474.6
B) 574.6
C) 674.6
D) 774.6

Q32. An electric motor winds 200 turns of a thin copper wire on a uniform rod of diameter 10 cm in 2 seconds. Then, the length of the wire that is wound over the rod in one second is $\qquad$ m .
A) $10 \pi$
B) $30 \pi$
C) $20 \pi$
D) $10.10 \pi$

Q33. A particle moves on a circular path of radius R as shown in the figure. The distance travelled and displacement of the particle from $A$ to $B$ respectively are:
A) $\frac{\pi R}{4}, R$
B) $\frac{\pi R}{2}, 2 R$
C) $\frac{\pi R}{4}, \sqrt{2} R$
D) $\frac{\pi R}{2}, \sqrt{2} R$


Q34. Which one of the following statements regarding a rainbow is always correct?
A) It is always seen as a circle.
B) The order of colours is always (from the top to bottom) Violet, Indigo, Blue, Green, Yellow, Orange, Red)
C) Its order of colours is always (from the top to bottom) Red, Orange, Yellow, Green, Blue, Indigo, Violet)
D) The order of colours can be either Violet to Red or Red to Violet depending upon the time of the day

Q35. In your study room, a plane mirror is fixed to the wall in front of you and opposite to that wall, a wall-clock is hanging in which only markings are there without numbers. You observe the time in the mirror as 7:10 hrs. Then, what is the actual time?
A) $4: 50 \mathrm{hrs}$
B) $7: 10 \mathrm{hrs}$
C) $7: 50 \mathrm{hrs}$
D) $5: 50 \mathrm{hrs}$

## CHEMISTRY (5 MARKS)

Q36. The percentage of solar radiation absorbed by all the green plants for the process of photosynthesis is about
$\qquad$
A) $1 \%$
B) $5 \%$
C) $8 \%$
D) $10 \%$

Q37. Which of these statements is true?
A) Density of ice is more than the density of water.
B) Volume of ice is more than the volume of water.
C) Temperature of ice is more than the temperature of water.
D) None of these

Q38. Which of the following statements is incorrect?
A) Fibroin is the gummy substance that holds together.
B) Asbestos is the only naturally occurring long mineral fibre.
C) Merino is an exotic breed of sheep.
D) Hair present on body of woolyielding animals traps a lot of air.

Q39. Which of the following statements about the given reaction are correct?
$3 \mathrm{Fe}(\mathrm{s})+4 \mathrm{H}_{2} \mathrm{O}(\mathrm{g}) \rightarrow \mathrm{Fe}_{3} \mathrm{O}_{4}(\mathrm{~s})+4 \mathrm{H}_{2}(\mathrm{~g})$
(i) Iron metal gets oxidized. (ii) Water is reduced. (iii) Water is acting as a reducing agent. (iv) Water is acting as an oxidizing agent.
A) (i), (ii) and (iii)
B) (iii) and (iv)
C) (i), (ii) and (iv)
D) (ii) and (iv)

Q40. Which of the following are present in a dilute aqueous solution of hydrochloric acid?
A) $\mathrm{H}_{3} \mathrm{O}^{+}+\mathrm{Cl}^{-}$
B) $\mathrm{H}_{3} \mathrm{O}^{+}+\mathrm{OH}^{-}$
C) $\mathrm{Cl}^{-}+\mathrm{OH}^{-}$
D) unionized HCl

## BIOLOGY (5 MARKS)

Q41. During inhalation, the ribs move
$\qquad$
(1)
and $\qquad$ and the diaphragm moves $\qquad$ .

This $\qquad$ (iv) the volume of thoracic cavity and the air pressure inside the lungs $\qquad$ (v) $\qquad$ .
Complete the above paragraph by selecting the correct option.
A) (i) upward, (ii) outward,
(iii) down, (iv) increases, (v) decreases
B) (i) downward, (ii) inward, (iii) down, (iv) decreases, (v) increases
C) (i) upward, (ii) outward, (iii) down, (iv) decreases, (v) increases
D) (i) downward, (ii) inward, (iii) down, (iv) increases, (v) decreases

Q42. Which of the following pair of teeth differ in structure but are similar in function?
A) Canines and Incisors
B) Molars and Premolars
C) Incisors and Molars
D) Premolars and Canines

Q43. Which two colours of light drive most of photosynthesis?
A) Red and green
B) Blue and green
C) Red and blue
D) Green and yellow

Q44. The 'eye' of the potato plant is what $\qquad$ .
A) the anther is to stamen.
B) the bud is to a flower.
C) the bud is to a Bryophyllum leaf.
D) the root is to any plant.

Q45. Which of the following is a mismatched pair?
A) Xylem - Ascent of sap
B) Phloem - Translocation
C) Root Hair - Photosynthesis
D) Stomata - Transpiration

## APTITUDE (15 MARKS)

Q46. Complete the series:
6C7, 8F10, 11J14, 15O19,?
A) 25 U 20
B) 20 U 25
C) 20 U 24
D) 19 U 25

Q47. Amorphousness is to Definition as Lassitude is to $\qquad$ ?
A) Awarness
B) Companionship
C) Uniformity
D) Energy

Q48. Choose the odd one out:
A) Rhea
B) Trout
C) Lamprey
D) Salmon

Q49. How much does the clock gain or loss per day if its hands coincide after every 69 minutes?
A) Gains in $80 \frac{80}{341}$ minutes
B) Loss in $80 \frac{80}{253}$ minutes
C) Gains in $92 \frac{244}{253}$ minutes
D) Loss in $73 \frac{251}{253}$ minutes

Q50. Priya was born on 6th December 1989. When was she 5 years 8 months and 22 days old?
A) 28-05-1994
B) 28-08-1995
C) 15-02-1994
D) 28-08-1994

Q51. The reflex angle between the hands of a clock at $10: 25$ is:
A) $192 \frac{1}{2}^{0}$
B) $195^{0}$
C) $180^{\circ}$
D) $197 \frac{1}{2}^{0}$

Q52. Pointing to a woman in a photograph, a man says, "She is the mother-in-law of the husband of the only granddaughter of my own mother-inlaw. How is the woman related to the man?
A) Daughter-in-Law
B) Sister-in-Law
C) Data inadequate
D) None of these

Q53. If + mean-, - means $\times, \div$ means + and $\times$ means $\div$, then $10 \times 5 \div 3-2+3=$ ?
A) 5
B) $\frac{53}{3}$
C) 21
D) 36

Q54. From his house, Bunty went 15 km to the North, then he turned West and covered 10 km . Then, he turned South and covered 5 km . Finally turning to East, he covered 10 km . In which direction is he from his house?
A) South
B) West
C) East
D) North

Direction (Q 55-56) Six people A, B, $C, D, E$ and $F$ are sitting on the ground in a hexagonal shape. All the sides of the hexagon so formed are of same length. $A$ is not adjacent to $B$ or $C, D$ is not adjacent to $C$ or $E, B$ and $C$ are adjacent, $F$ is in the middle of $D$ and C?

Q55. Which of the following is not a correct neighbour pair?
A) A and F
B) D and F
C) B and E
D) C and F

Q56. Who is at the same distance from D as E is from D?
A) B
B) C
C) D
D) F

Q57. Insert the missing character:
A) 832
B) 777
C) 245
D) 779


Q58. Select a suitable figure from the answer figures that would replace the question mark (?).

Problem Figures:

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

Answer Figures:

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

Q59. Select a figure from the answer figures which will continue the same series as established by the five problem figures.

Problem Figures:

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

Answer Figures:

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

Q60. Which of the following diagrams indicates the best relation between Wheat, Loaf, Barley?
A)


B)

C)

D)


## SPACE FOR ROUGH WORK

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