

MODEL TEST PAPER SUMMATIVE ASSESSMENT-I

(Unsolved- 1)

Time: 3hr.

Max Marks: 80

General Instructions:-

1. Section A Q.1. to Q.10. carry 1 mark each.
2. Section B Q.11. to Q.20. carry 2 marks each.
3. Section C Q.21. to Q.30. carry 3 marks each.
4. Section D Q.31. to Q.35. carry 4 marks each.

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SECTION – ‘A’

Q.1. In the equation $2x + y - 11 = 0$ the value of x when $y = 0$ is

- | | |
|----------------------|-----------------------|
| (i) $\frac{2}{11}$ | (iii) $\frac{-2}{11}$ |
| (ii) $\frac{-11}{2}$ | (iv) $\frac{11}{2}$ |

Q.2. One card is drawn from a pack of 52 cards. What is the probability that the card drawn is queen?

- | | |
|---------------------|---------------------|
| (i) $\frac{5}{22}$ | (iii) $\frac{1}{7}$ |
| (ii) $\frac{1}{13}$ | (iv) $\frac{2}{52}$ |

Q.3. The smallest number by which 180 must be multiplied so that it becomes a perfect square is

- | | | | |
|-------|--------|---------|--------|
| (i) 6 | (ii) 9 | (iii) 3 | (iv) 5 |
|-------|--------|---------|--------|

Q.4. If PQRS is a kite then $PQ =$ _____.

- | | |
|---------|----------|
| (i) PS | (iii) PR |
| (ii) SR | (iv) QS |

Q.5. If $72 \times k$ is a perfect cube, then the value of k is

- | | | | |
|-------|--------|---------|--------|
| (i) 9 | (ii) 2 | (iii) 3 | (iv) 4 |
|-------|--------|---------|--------|

Q.6. The product of $\left(\frac{a}{b} - \frac{b}{a}\right)\left(\frac{a}{b} - \frac{b}{a}\right)$ is

(i) $\frac{a^2}{b^2} + \frac{b^2}{a^2} - 2ab$

(iii) $\frac{a^2}{b^2} + \frac{b^2}{a^2} + 2$

(ii) $\frac{a^2}{b^2} + \frac{b^2}{a^2} - 2$

(iv) $\frac{a^2}{b^2} + \frac{b^2}{a^2} - \frac{2}{ab}$

Q.7. What is the sum of all the exterior angles of a 8 sided regular polygon?

(i) 1080^0

(iii) 360^0

(ii) 720^0

(iv) 135^0

Q.8. The product of $\frac{25}{14}$ and additive inverse of $\frac{-7}{5}$ is

(i) $\frac{125}{98}$

(iii) $\frac{5}{2}$

(ii) $\frac{-125}{98}$

(iv) None of these

Q.9. Number of non- squares lie between the squares of n & (n + 1)

(i) n

(iii) 2n

(ii) n^2

(iv) None of these

Q.10. The cube root of -1000 is

(i) 10

(iii) -10

(ii) 100

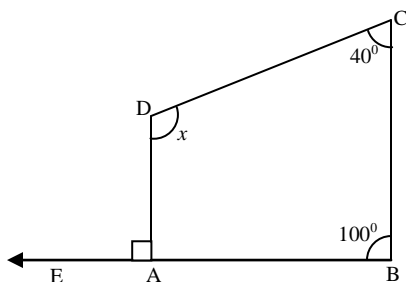
(iv) -100

SECTION – ‘B’

Q.11. Three consecutive integers add up to 51. Find the integers.

Q.12. ABCD is a trapezium in which $AB \parallel CD$. If $\angle A = 50^0$. What is the measure of $\angle D$?

Q.13. Find the measurement of unknown angle ‘x’.



Q.14. Following frequency distribution table shows marks (out of 50) obtained in English by 45 students of class VIII.

| Class interval | Frequency |
|----------------|-----------|
| 0 – 10 | 1 |
| 10 – 20 | 6 |
| 20 – 30 | 20 |
| 30 – 40 | 12 |
| 40 – 50 | 6 |
| Total | 45 |

- (i) What is the size of class intervals?
- (ii) Which class has the highest frequency?
- (iii) What is the upper limit of the class interval 30 – 40?
- (iv) Which two classes have the same frequency?

Q.15. The area of a square park is $30\frac{1}{4}m^2$. Find the length of each side of the park.

- Q.16. (i) Express 81 as the sum of 9 odd numbers.
- (ii) How many numbers lie between squares of 15 and 16?

Q.17. Is 53240 a perfect cube? Justify your answer.

Q.18. Subtract $-5(xy - y)$ from $2y(-11x + 7)$.

- Q.19. (i) Write a monomial with 'a' and 'b' as variables.
- (ii) Identify the terms in the given expression and write their numerical

coefficients. $\left(\frac{x}{2} - xy\right)$

Q.20. Simplify $n^2(n - 2) + 2n^3(n + 3) - 6n(n - 4)$ and then find its value for $n = -1$.

SECTION – 'C'

Q.21. The adjacent angles of a parallelogram are in the ratio 2 : 3. Find the angles.

Q.22. Construct a quadrilateral ABCD where AB=4 cm, BC=5cm, CD=6.5cm and $\angle B=105^\circ$ and $\angle C=80^\circ$.

Q.23. Find the side of a cube when volume of cube is 2744 cm^3 .

Q.24. The perimeter of a parallelogram is 180cm. One side exceeds the other by 10cm. What are the lengths of adjacent sides of the parallelogram?

Q.25. If $x + \frac{1}{x} = 5$, find $x^2 + \frac{1}{x^2}$.

Q.26. Find the square root of 37.0881 by division method.

Q.27. The four angles of a quadrilateral are x° , $(x-10)^\circ$, $(x+30)^\circ$ and $2x^\circ$. Find all the angles of the quadrilateral and also write the greatest angle.

Q.28. Solve the following equation and check your result. $5x + \frac{7}{2} = \frac{3}{2}x - 14$

Q.29. Find using appropriate properties. $\frac{1}{3} \times \frac{5}{6} + \frac{5}{2} + \frac{2}{3} \times \frac{1}{3}$

SECTION – ‘D’

Q.30. Find the smallest 4-digit number which is a perfect square.

Q.31. On a particular day the sales (in rupees) of different items of a bakers shop are given below:

| Item | Sales in (₹) |
|--------------------|--------------|
| Ordinary bread | 320 |
| Fruit bread | 80 |
| Cakes and pastries | 160 |
| Biscuits | 120 |
| Others | 40 |
| Total | 720 |

Draw a pie chart for this data.

Q.32. Construct a rhombus PQRS whose one side PQ=5cm and diagonal PR=6cm. Measure the length of the other diagonal.

Q.33. The sum of the digits of a 2-digit number is 12. If the number formed by reversing its digits is greater than the original number by 18. Find the original number.

Q.34. Find the least number that must be added to 1300 so as to get a perfect square. Also find the square root of the perfect square.

Q.35. Solve using suitable identity:

(i) $(x - 10)(x + 9)$

(ii) $56^2 - 44^2$.

