MODEL TEST PAPER SUMMATIVE ASSESSMENT-II
Unsolved-3

Time : 2 hrs 30 min. **Maximum Marks : 80**

GENERAL INSTRUCTIONS.

- Attempt all the questions.
- Section- A: Q 1- Q 10 carry 1 mark each.
- Section- B: Q 11- Q 20 carries 2 marks each.
- Section- C: Q21-Q 30 carries 3 marks each.
- Section- D: Q31- Q 35 carries 4 marks each.

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SECTION A

Q.1. The cost of a soap is Rs 35 and VAT on it is 10% .The bill amounts to Rs _____.

Q.2. If x and y vary directly, which of the following is true.

(If x decreases, y also decreases or If x increases y decreases)

Q.3. If dimension of cuboid is 12 cm × 8 cm × 4 m, its volume is _____ cm^3.

Q.4. The value of $(5^3 \div 3^5)^\circ = 1$. State True or False.

Q.5. Standard form of 0.000056 is _____.

Q.6. Which one is the factor of $x^2 - 9$? Choose the correct option [(x + 9) or (x + 3)].

Q.7. Point (0, 4) lies on _____ axis.

Q.8. The coordinates of the origin are _____.

Q.9. Common factor of 6abc, $24ab^2$ and $12a^2b$ is _____.

Q.10. If Compound Interest charged on Rs 10,000 is Rs 1080.56 then amount is _____.

SECTION B

Q.11. A machine produces 180 tools in 6 hrs. How many tools will it produce in 9 hours.

Q.12. Varun purchased a calculator for Rs 2500 and sold it to his friend for Rs 2800. Find his gain percent.

Q.13. Neena bought a Television for Rs 2375 after getting 5% discount on it. What is its list price?

Q.14. Simplify and write the answer in exponential form:

$(5^3 \div 5^6)^5 \times 5^{-5}$

Q.15. Factorise:

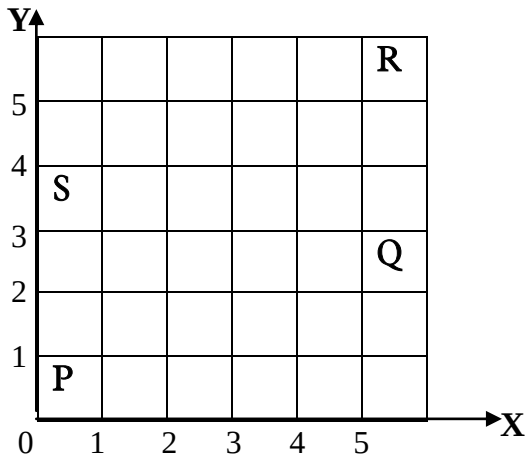
$15xy - 6x + 10y - 4$

Q.16. Find the value of $\left(\frac{1}{2}\right)^{-1} + \left(\frac{1}{3}\right)^{-2} + \left(\frac{1}{4}\right)^{-3}$

Q.17. The area of a rhombus is $48cm^2$. One of its diagonal measures 8cm. What is the length of the other diagonal?

Q.18. The dimensions of a room are $6m \times 5m \times 3m$. Find the surface area of its walls.

Q.19. Write the coordinates of the vertices of the quadrilateral PQRS.



Q.20. The following graph shows the temperature of a patient in a hospital recorded every hour.

(i) When was the patient's temperature 36°C?

(ii) What was the patient's temperature at 10:30 a.m.?

SECTION C

Q.21. Solve:

$15(y - 4) - 2(y - 9) + 5(y + 6) = 0$

Q.22. A rectangular paper width dimensions 22 cm × 6 cm is rolled without overlapping to make a cylinder of height 6 cm. Find the volume of the cylinder.

Q.23. Find the value of y:

$$\left(\frac{4}{7}\right)^{3} \times \left(\frac{4}{7}\right)^{-6} = \left(\frac{4}{7}\right)^{2y-1}$$

Q.24. 6 pipes are required to fill a tank in 1 hour 20 minutes. How long will it take if only 5 pipes of the same type are used?

Q.25. By what number should $\left(\frac{-5}{2}\right)^{-3}$ be multiplied so that the product is $\left(\frac{25}{4}\right)^{-2}$?

Q.26. Divide:

$4yz\,(z^2 + 6z - 16)$ by $2y\,(z + 8)$

Q.27. Factorise:

$9a^2 - 30bc + 25b^2 - 36c^2$

Q.28. Solve: $\frac{6x+1}{3} + 1 = \frac{x-3}{6}$

Q.29. Find the amount and compound interest on Rs 10000 for 1½ year at 10% per annum, compounded half yearly.

Q.30. A vendor purchased eggs at Rs 16 per dozen and sold them at 10 for Rs 18. Find his gain or loss percent?

SECTION D

Q.31. (a) Draw a graph for the following:

Side of square (in cm)	1	2	3	4	5
Area (in cm^2)	1	4	9	16	25

(b) The graph obtained is linear. State true or false.

Q.32. A train is moving at a uniform speed of 75 km/ hr.

(a) Find the time required to cover a distance of 250 km.

(b) How far will it travel in 20 minutes?

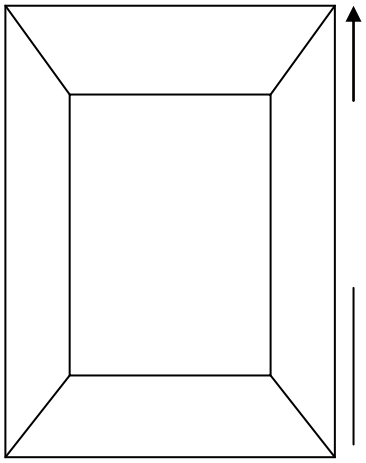
Q.33. Factorise using appropriate identity:

(i) $a^2 - 10a + 21$

(ii) $32x^2 - 98y^2$

Q.34. In a building there are 16 cylindrical pillars. The radius of each pillar is 2.8 m and height is 6 m. Find the total cost of painting the curved area of all pillars at the rate of Rs 7 per m^2.

Q.35. A picture frame has outer dimensions 24 cm × 28 cm and inner dimensions 16 cm × 20 cm. Find the area of each section of the frame, if the width of each section is same.



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