

**MODEL TEST PAPER SUMMATIVE ASSESSMENT-II**

**Unsolved-1**

**Time : 2 hrs 30 min.**

**Maximum Marks : 80**

**General Instructions:**

- Read the question paper well before answering.
  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.

**SECTION- A**

**Choose the correct answer:**

**Q.1. One of the factors of  $36a^2-0.01b^2$  is:**

- |             |                  |
|-------------|------------------|
| (i) $6a-b$  | (iii) $6a-0.01b$ |
| (ii) $6a+b$ | (iv) $6a+0.1b$   |

**Q.2. What will be the amount of discount if an article marked at Rs 250 is sold at a discount of 12%?**

- |             |              |
|-------------|--------------|
| (i) Rs 203  | (iii) Rs 218 |
| (ii) Rs 225 | (iv) Rs 220  |

**Q.3. Given: 1 A**

$$\begin{array}{r} \times A \\ \hline 7A \end{array}$$

**The value of alphabet A is**

- |        |                    |
|--------|--------------------|
| (i) 6  | (iii) 5            |
| (ii) 1 | (iv) None of these |

**Q.4. The compound interest on Rs 2000 lent for 2 years at 5% per annum when the compound interest is payable annually is:**

- |             |              |
|-------------|--------------|
| (i) Rs 210  | (iii) Rs 205 |
| (ii) Rs 230 | (iv) Rs 250  |

**Q.5. The area of a trapezium with parallel sides 6 cm and 4 cm and height 5 cm is:**

- |               |                |
|---------------|----------------|
| (i) 20 sq cm  | (iii) 25 sq cm |
| (ii) 28 sq cm | (iv) 35 sq cm  |

**Q.6. The standard form for 0.0000072 is:**

- (i)  $7.2 \times 10^{-6}$
- (ii)  $7.2 \times 10^6$
- (iii)  $7.2 \times 10^{-7}$
- (iv)  $7.2 \times 10^7$

**Q.7. x and y vary directly with each other. When x is 10, y is 15 which of the following is not a possible pair of corresponding values of x and y?**

- (i) (2, 3)
- (ii) (8, 12)
- (iii) (15, 20)
- (iv) (25, 37.5)

**Q.8. A point whose y-coordinate is zero and x-coordinate is non-zero will lie on the:**

- (i) x-axis
- (ii) origin
- (iii) y-axis
- (iv) None of these

**Q.9. Which is the next number in the series?**

4, 16, 36, 64, .....

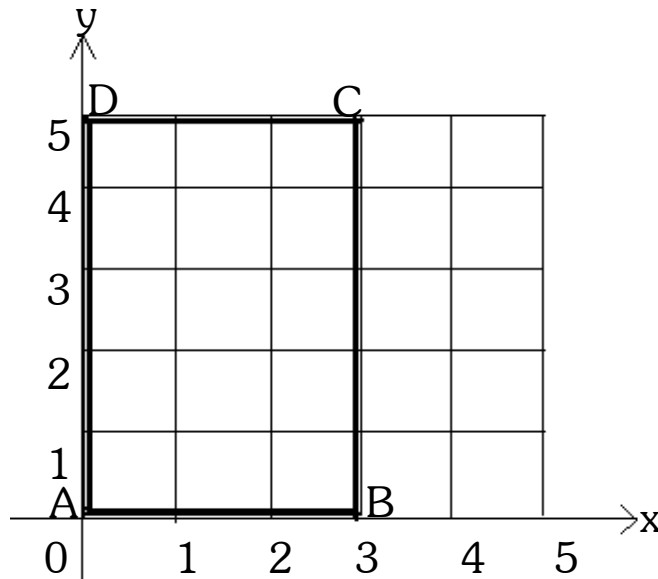
- (i) 81
- (ii) 100
- (iii) 121
- (iv) None of these

**Q.10. The value of  $\frac{96 \times 96 - 4 \times 4}{92}$  is**

- (i) 1000
- (ii) 100
- (iii) 1
- (iv) None of these

**SECTION- B**

**Q11. Write the coordinates of the vertices of the adjoining figure ABCD shown.**



Q12. If  $2857c6$  is a multiple of 9 where 'c' is a digit, what is the value of 'c'?

Q13. 
$$\begin{array}{r} A \ 1 \\ + \underline{1 \ B} \\ \underline{\underline{B \ 0}} \end{array}$$

Find the values of the letters A and B.

Q14. Sunita types 550 words in one hour. How many words would she type in 6 minutes?

Q15. Solve and write the answer as a positive exponent:

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

Q16. The area of a rhombus is 161 sq m. If one of its diagonal is 4 m, find the length of the other diagonal.

Q17. Solve:

$$(4^{-1} + 8^{-1}) \div \left(\frac{2}{3}\right)$$

Q18. Regroup the following terms and factorise:

$$2xy + 6x + y + 3$$

Q19. The C.P. of a sofaset is Rs 5,500 included 10% VAT. Find the price before VAT was added.

Q20 Plot the following points on the graph paper-

(i) (0, 4)

(ii) (3, 0)

Name the axis on which the two points lie.

### SECTION- C

Q21. A shopkeeper offers 4% discount on calculator to his customers. What does a customer pay for a calculator whose marked price is Rs 650?

Q22. The area of a rectangle is  $4y^2 + 24y$ . If its breadth is  $24y$ , then find its length.

Q23. Find the compound interest on Rs 10,000 for an year at 10% per annum compounded half yearly.

- Q24.** The area of four walls of a room is  $57.4\text{m}^2$ . If the room is 5 m long and 3.2 m wide, find the height of the room.
- Q25.** The cost of 25a metres of cloth is Rs  $(5a^2 + 25a)$ . Find the cost of 1m cloth.
- Q26.** Solve and find the value of x:  
 $8^{3x} = 16^{(3x-6)}$
- Q27.** A shopkeeper offers his customers 10% discount and still makes a profit of 26%. What is C.P. of an article marked Rs 280?
- Q28.** By what number should  $\left(\frac{-5}{2}\right)^{-3}$  be divided so that the quotient is  $\left(\frac{25}{4}\right)^{-2}$ ?
- Q29.** The area of a rectangular field is 408sq.m. Breadth of the field is 12 m. What is the perimeter of the field?
- Q30.** Veena can buy 25 books worth Rs. 500 each. How many books will she be able to buy for the same amount if each book costs Rs. 125 more?

**SECTION- D**

- Q31.** The following table shows the number of articles and their cost in rupees:

<b>No. of articles</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>10</b>
<b>Cost price (in Rs)</b>	<b>150</b>	<b>300</b>	<b>450</b>	<b>600</b>	<b>750</b>

- (iii) Represent the above table by a graph.
- (iv) From the graph answer the following questions.
- (a) What will be the cost of 7 articles.
- (b) How many articles can be purchased for Rs 375?
- Q32. Factorise:**
- (iii)  $x^2 - 8x - 65$
- (iv)  $x^4 - (y + z)^4$
- Q33.** Rohit lends Rs 1000 at  $10\frac{1}{2}\%$  per annum compound interest payable annually. Rishabh lends the same sum at 10% per annum compound interest, but payable half yearly. Who is gaining more C.I. at the end of one year and by how much?
- Q34.** In a section of Tihar jail there were 800 prisoners at one time and food for them was sufficient for 15 days. Then some prisoners were transferred to

an adjoining section and the food lasted for 25 days. How many prisoners were transferred?

**Q35.** 15 cylindrical pillars of a building are to be painted and the diameter and height of each pillar is 48cm and 7m respectively. Find the cost of painting if the rate is Rs. 2 per sq.m.

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