विद्या सर्वार्थ साधिका

ANANDALAYA

PERIODIC TEST - 1

Class: VII

Subject: Mathematics M.M: 40

Date : 14-07-2025 Time: 1 Hr 30 min

General Instructions:

(1) This question paper contains 20 questions.
(2) This question paper is divided into 4 sections – A, B, C and D.
(3) Section-A contains 7 multiple choice questions (MCQ's) each of 1 mark.
(4) Section-B contains 8 very short- answer type questions each of 2 marks.
(5) Section-C contains 3 short- answer type questions each of 3 marks.
(6) Section-D contains 2 questions. However, Question 20 in Section D is a case study based question carrying 4 marks with subparts of values 1, 1 and 2 marks respectively.
(7) There is no overall choice. However, an internal choice has been provided in 2 questions in Section- B and 2 questions in Section-C.
(8) Use of calculator is not allowed.

Section-A

1. In the given 3 × 3 magic square, if each row, column and diagonal have the same sum, then the values of A and B are ____ and ____ respectively. (1)

2	-3	4
A	1	-1
-2	5	B

(A) 3, 0 (B) -3, 2 (C) -3, -2 (D) 3, 2

2. The predecessor of $(-8) \times (-3)$ is _____ (1)

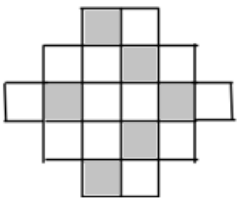
(A) 25 (B) 23 (C) -23 (D) -26

3. The additive inverse of 63 is _____ (1)

(A) 0 (B) -63 (C) $\frac{1}{63}$ (D) $\frac{-1}{63}$

4. Which pair of integers does not have a product equal to 36? (1)
(A) $(-4, -9)$ (B) $(2, 18)$ (C) $(6, -6)$ (D) $(-12, -3)$

5. How many more unit squares in the figure must be shaded so that the fraction of the shaded squares is $\frac{7}{9}$? (1)



(A) 1 (B) 3 (C) 6 (D) 8

6. Reciprocal of $5\frac{6}{11}$ is _____. (1)
(A) $\frac{41}{11}$ (B) $\frac{330}{11}$ (C) $6\frac{5}{11}$ (D) $\frac{11}{61}$

7. A statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices. (1)

(A) : $\frac{3}{4}$ of 24 is 18

(R) : $\frac{3}{\cancel{4}} \times \cancel{24}^{6} = 18$

(A) Both A and R are true and R is the correct explanation of A.
(B) Both A and R are true but R is not the correct explanation of A.
(C) A is true but R is false.
(D) A is false but R is true.

Section-B

8. Shekhar writes positive numbers for profit and negative numbers for losses in his business accounts book. He made following entries in his book for the last 7 days. (2)

$-210, \quad +300, \quad -500, \quad +900, \quad -250, \quad +1000, \quad -400$

How much profit did he make in the last 7 days?

9. As we move upwards in the atmosphere, for every 1000 ft, the temperature decreases by $1\ °F$. Find the temperature at an altitude of 12000 ft, if the temperature near the earth surface is $112\ °F$. (2)

10. A telephone company offers a monthly discount of ₹12 to the customer who pays their bill on time. Joseph pays the bill on time for a year. Find the amount of money he saved during the year. If annual electricity bill of Joseph was ₹24515, find the amount to be paid by Joseph. (2)

11. (A) Find the product of 0.347 and 1.2 (2)

OR

(B) Evaluate: $30.94 \div 0.7$.

12. (A) Use distributive property to find the value of $2347 \times 101 - 2347$ (2)

OR

(B) Find the value of $692 \times 92 + 692 \times 8$ using suitable property of integers.

13. Use >, < or = in the box to compare the numbers: (2)

(i) $25 + (-14) - 18$ ☐ $25 + (-14) - (-18)$

(ii) $(-9) + (-28)$ ☐ $(-9) - (-28)$

14. Solve the following: (2)

(i) $101.25 \div 10$ (ii) 326.28×100

15. Find the perimeter of a square if its side measures $\frac{5}{6}\ cm$. Express your answer in mixed fraction. (2)

Section-C

16. (A) A man gave $\frac{1}{3}$ of ₹ 54000 to his son, $\frac{1}{5}$ of the amount to his daughter and the remaining to his wife. How much money did his wife get? (3)

OR

(B) The product of two numbers is $5\frac{28}{81}$. If one number is $\frac{14}{27}$, find the other number.

17. Verify : $7\times [22+(-9)] = \{7\times 22\} + \{7\times(-9)\}$ (3)

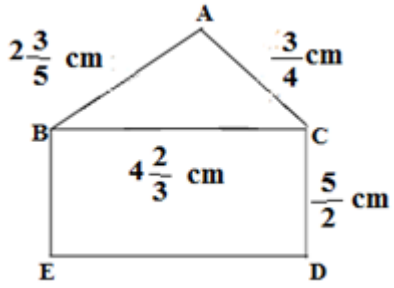
18. (A) A fruit merchant earns a profit of ₹ 8 per box of oranges sold and a loss of ₹ 5 per box of grapes sold. (3)
    (i) If a merchant sells 400 boxes of oranges and 500 boxes of grapes. What is the total profit or loss?
    (ii) Find the number of boxes of oranges to be sold to have neither profit nor loss if the number of boxes of grape sold is 320.

OR

(B) In a test (+4) marks are given for every correct answer and (-2) marks are given for every incorrect answer and no marks for not attempting any question. Daksh scored 16 marks, while Riya scored (−8) marks and Manya scored 10 marks.
    (i) Find the sum and product of total marks scored by Daksh, Riya and Manya.
    (ii) If Riya has attempted 6 questions incorrectly, then find the number of questions she has attempted correctly?

Section-D

19. Find the (4)
    (i) Perimeter of ΔABC.
    (ii) Area of rectangle BCDE.



20. Insulin is a hormone made by the pancreas in the human body. It helps to regulate blood sugar level and absorbs glucose to get energy. The number of required units of insulin varies according to the individual. In some cases, an individual body is not able to produce sufficient amount of insulin. For those individuals, supplementary units of insulin are injected into the body. A doctor uses this formula to calculate the daily insulin units required for a person's body. Daily insulin requirement (units) = 0.55 x Total body mass (in *kg*) (4)

Answer the following questions.

(i) Insulin also helps in disposing of carbohydrates in the human body. In Prakhar's body, 14.5 insulin units dispose 290 grams of carbohydrate. How many grams of carbohydrates are disposed of by 1 insulin unit?
(a) 200 (b) 20 (c) 2 (d) 0.2

(ii) Prakhar's body mass is 80 *kg*. Find Prakhar's daily insulin requirement.

(iii) Find the body mass of a person (in *kg*) if he requires 11 insulin units.