विद्या सर्वर्थि साधिका

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PERIODIC TEST 1

Class : VIII

Subject: Mathematics M.M: 40

Date : 22 - 07- 2024 Time: 1Hr. 30 min.

General Instructions:

i) This question paper contains 20 questions. All questions are compulsory.
ii) Questions 1 – 8 in Section A are questions carrying 1 mark each.
iii) Questions 9 – 14 in Section B are short-answer type questions carrying 2 marks each.
iv) Questions 15 – 18 in Section C are short -answer type questions carrying 3 marks each.
v) Question 19 and 20 in Section D are long-answer type question carrying 4 marks each. However, one is a case study based question carrying 4 marks with subparts of 1, 1 and 2 marks each respectively.

SECTION-A

1. Suresh walks $4\frac{3}{5}$ km in a day. How much distance will he cover in 5 days, if he walks the same distance every day? (1)
(A) 23 km (B) 24 km (C) $12\frac{3}{5}$ km (D) $20\frac{3}{5}$ km

2. When 8 is subtracted from five times a certain number, the result is four more than four times the number. What is the number? (1)
(A) 4 (B) 8 (C) 12 (D) 60

3. In which of the given polygons diagonals are equal? (1)
(A) Parallelogram (B) Rectangle (C) Rhombus (D) Kite

4. Name the regular quadrilateral. (1)
(A) Rhombus (B) Rectangle (C) Square (D) Parallelogram

5. What is the sum of the exterior angles of a triangle? (1)
(A) $180°$ (B) $60°$ (C) $120°$ (D) $360°$

6. In which of the quadrilaterals the diagonals do not intersect at $90°$? (1)
(A) Square (B) Rhombus (C) Kite (D)Rectangle

7. The sum of three consecutive multiples of 7 is 777. Which is the greatest multiple? (1)
(A) 252 (B) 259 (C) 266 (D) 210

8. Assertion (A) – Reciprocal of zero is zero. (1)
Reasoning (R) – Division by zero is not defined.
(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

9. Find the area of a rectangle whose length $10\frac{2}{3}$ m and breadth $9\frac{3}{4}$m. (2)

10. Find the value for the unknown variable: $\frac{3x}{4} + 3 = 18$ (2)

11. Solve: $10m - 28 = 6 - 7m$ (2)

12. Solve: $7(x-9)=35$ (2)

13. Is it possible to have a regular polygon with exterior angles equal to $32°$? Give reason for your answer. (2)

14. PQRS is a rectangle. Its diagonals meet at O. If PO = $(5x-6)$ and QO = $(3x+4)$, find the value of *x*. (2)

SECTION-C

15. Solve using the appropriate property: (3)
a) $\left(\frac{5}{8}\times\frac{2}{5}\right)+\left(\frac{5}{8}\times\frac{2}{7}\right)$
b) $\frac{1}{8}+\frac{2}{7}+\left(-\frac{9}{7}\right)+\left(-\frac{5}{16}\right)$

16. A) Write the additive inverse of: a) $\frac{15}{29}$ b) $-\frac{17}{23}$ (3)
B) Write the multiplicative inverse of: a) $-\frac{9}{17}$ b) 15
C) Write the numbers which are their own reciprocal.

17. Find the value of x: $\frac{4x+1}{8x-4}=\frac{2}{3}$ (3)

18. ABCD is a square. If AB and CD are increased by 2m and BC and DA are reduced by 2m, a rectangle is formed whose perimeter is 48m. Find the side of the original square. (3)

SECTION-D

19. A) ABCD is a parallelogram. $\angle A=50°$, find the other angles. (4)
B) PQRS is a parallelogram. The adjacent angles are in the ratio of 2:1. Find all the angles.

20. Anushka and Simran are friends. They have equal amount of money in their pockets. Anushka gave $\frac{1}{3}$ of her money to Simran as her birthday gift. Then Simran gave a party at a restaurant and paid half of the total money. If the remaining money Simran has is Rs. 1600, find the amount gifted by Anushka. (4)
(a) Write the algebraic expression for the money Simran will have with her after Anushka gifted her some money.
(b) Write an equation for how much Simran paid at the restaurant.
(c) How much money did they have in the beginning and how much money did Anushka gift to Simran?