ST. ARNOLD'S CENTRAL SCHOOL, PUNE
TERM – 2 EXAMINATION, 2017 – 2018
SUBJECT – MATHEMATICS

STD – VII **MM : 80**

SECTION – A

1. Fill in the blanks : (5x1=5)

a. The simplest form of 450 : 750 is_____.
b. The value of $3^6 \div 3^3$ is _____.
c. There are _____lines of symmetry in a regular hexagon.
d. The area of a parallelogram whose base is 30cm and height 20cm is_____.
e. The value of $ab - c$ is _____ if a = -2 , b = -3 and c = -4.

2. Solve the following : (5x1=5)

a. Thrice of a number when decreased by 7 gives 8 . Find the number.
b. What is the Simple Interest if a sum of ₹ 1250 amounts to ₹ 4750 in 3 years at 4% p.a?
c. What is 20% of 250 km?
d. What is the value of $10^0 + 100^0 + 1000^0$?
e. Write the number 5643021 in the expanded form.

SECTION - B

Question numbers 3 to 14 carry 2 marks each :

3. If $12\frac{1}{2}\%$ of a number is 40, find the number. (2)
4. Rahul bought a toy for ₹ 700 and sold it for ₹ 658 . Find the gain or loss % . (2)
5. Find the ratio of 3 km to 300 m. (2)
6. The perimeter of a rectangle is 52m . If the rectangle is 16m long , find its breadth . (2)
7. For the polynomial $9x^2 - 4x + 7x^3 - 5$, find the constant, co-efficient of x, co-efficient of x^2, co-efficient of x^3. (2)
8. Divide : $\left(-\frac{5}{7}\right) \div \left(-\frac{15}{28}\right)$ (2)
9. Multiply : $6\frac{3}{7} \times 8\frac{2}{5}$ (2)
10. Subtract $(-3a^2 + 4ab - 2b^2)$ from $(3a^2 + 4ab - 3b^2)$ (2)
11. Solve : $27 + t = 15 - 2t$ (2)
12. Simplify : $(2^7 \div 2^3) \times (2^5)$. (2)
13. What is the other name that can be given to the line of symmetry of (2)
    a. an isosceles triangle ?
    b. a circle ?
14. What is the order of rotational symmetry of a circle and show the rotational symmetry . (2)

SECTION – C

Question numbers 15 to 24 carry 3 marks each :

15. The height of a boy was 144cm and his height becomes 148.5cm. Find the percentage increase in his height . (3)
16. If ₹7500 invested at the rate of 6% per annum amounts to ₹8850, find the time period.(3)
17. Express 625 x 729 as product of two exponents. (3)
18. Solve : $(x + 3)(x + 2) - (- x - 1)(x - 2) = 7$ (3)
19. Which is greater? 5^4 or 4^5. (3)

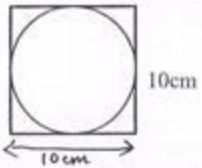
20. Arrange $\frac{-2}{9}, \frac{4}{3}, \frac{-5}{18}, \frac{1}{6}$ in descending order. (3)

21. Represent the rational numbers $\frac{-3}{4}$ and $\frac{7}{8}$ on different number lines. (3)

22. Simplify : $\frac{3^5 \times 10^5 \times 25}{5^7 \times 6^5}$ (3)

23. Construct an equilateral triangle with side 5.5 cm. (3)

24. From the figure, find which is smaller, perimeter of the square or circumference of the circle. (3)



SECTION – D

Question numbers 25 to 28 carry 4 marks each :

25. Simplify : $(2x^3 - 3x^2 - 8) - (-5x^3 - 2x^2 + 7) + (x^2 - 3)$ (4)

26. The area of a circular region is 616cm^2. Find the circumference. (4)

27. Construct a triangle ABC with AB = 6cm $\angle A = 75^\circ$ and $\angle B = 45^\circ$. (4)

28. Find the area of the shaded portion. (4)