

TEST PAPER: MATHEMATICS

Time: 60 Minutes

Class: 8th C.B.S.E.

Max. Marks: 40 Marks Date: 6th February, 2019

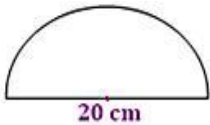
Marking Scheme: Four questions carry 10 marks each. Questions have 3 subparts each. Subparts (a) and (b) carry 3 marks each and subpart (c) carries 4 marks.

Question 1:

- a. Answer the following:
 - (i) Factorise: $x^3 + x^2 + x + 1$
 - (ii) Find the value of $x^3 + x^2 + x + 1$ when $x = -1$.
- b. If $5^{2x+1} \div 25 = 125$, find the value of x .
- c. By selling a camera for Rs. 2400, Ron loses 4%. At what price must he sell it to gain 12 %.

Question 2:

- a. After an increase of 20 %; a number becomes 540. Find the original number.
- b. Find the perimeter of the adjoining figure which is a semicircle including the diameter.



- c. A cuboid has its dimensions in the ratio 2:3:5. Its volume is 3750 m^3 . Find:
 - (i) Its dimensions (length, breadth and height)
 - (ii) Lateral surface area
 - (iii) Total surface area
 - (iv) Cost of painting the entire cuboid at the rate of Rs. $10/\text{m}^2$.

Question 3:

- a. Two parallel sides of a trapezium are of lengths 27 cm and 19 cm respectively, and the distance between them is 14 cm. Find the area of the trapezium.
- b. 32 workers can complete a work in 84 days. How many workers will complete the same work in 48 days?
- c. 4 books cost Rs. 20. Answer the following:
 - (i) Find the cost of 12 books
 - (ii) Find the number of books that can be brought for Rs. 35.

Question 4:

- a. The number of vertices in a polyhedron is 7 and the number of its edges is 12. Find the number of its faces.
- b. The sum of three consecutive odd numbers is 51. Find the numbers.
- c. Find the least number which must be subtracted from 8105 to make it a perfect square.