Mathematics & Science - Model Test Paper (Paper 2)

Question 1: A garden is to be laid out in a rectangular area and protected by a wire fence. Find the perimeter of the rectangle whose length 30 ft and breadth 18 ft?
(A) 1080 ft (B) 540 ft
(C) 96 ft (D) 48 ft

Question 2: The sum of three consecutive even numbers is 78, then the least number among them is: (A) 22 (B) 24 (C) 26 (D) 28

Question 3: Match it :
Find the area when the dimensions are given.
(i) Equilateral triangle, side = 4 cm (a) 56 cm2
(ii) Rhombus, d1 = 8 cm, d2 = 7cm (b) 308 cm2
(iii) Parallelogram, b = 8 cm, h = 7 cm (c) 16√3 cm2
(iv) Semi circle, diameter = 28 cm (d) 28 cm2
(e) 4√3 cm2
(A) (i)-(c), (ii)-(d), (iii)-(a), (iv)-(b)
(B) (i)-(e), (ii)-(d), (iii)-(a), (iv)-(b)
(C) (iii)-(e) (ii)-(a), (iii)-(d), (iv)-(b)
(D) (i)-(c), (ii)-(a), (iii)-(b), (iv)-(d)

Question 4: The radius of the circle is 12 cm and the length of one of its chord is 20 cm. Find the distance of the
chord from the centre in cm.
(A) 2 √11 (B) 11 √2
(C) 22 √11 (D) 11 √22

Question 5: The length of a rectangular playground exceeds its breadth by 12 metres. If the perimeter of the ground is 196m, find the length and breadth of the ground.
(A) 55m, 43m (B) 43m, 55m
(C) 92m, 104m (D) 104m, 92m

Question 6: The arithmetic mean of 6 values is 45 and if each value is increased by 5 and another arithmetic mean of 6 value is 50, if each value is increased by 6 then the difference between them is :
(A) -6 (B) 6
(C) 5 (D) -5

Question 7: A bus is carrying 56 passengers, with some people having Rs. 8 tickets and the remaining having Rs. 10 tickets. If the total money received from these passengers is Rs. 500, the number of passengers having Rs. 10 tickets is :
(A) 30 (B) 32
(C) 26 (D) 28

Question 8: Find the least number that must be subtracted from 27256 so that it becomes a perfect square.
(A)21 (B)11
(C)31 (D)41

Question 9: Using Euler's formula, find the vertices of a polyhedron with 32 faces and 90 edges.
(A)122 (B)58
(C) 30 (D) 60

Question 10: How many hundreds in Ten Million?
(A)100 (B)1000
(C)10 (D) 100000