Q1. A cistern of capacity 8000 litres measures externally 3.3 m by 2.6 m by 1.1 m and its walls are 5 cm thick. The thickness of the bottom is:

(a) 1 m (b) 1.1 m (c) 1 dm (d) 90 cm

Q2. The area of a circular garden is 2464 sq.m. how much distance will have to be covered if you like to cross the garden along its diameter? (Use π= 22/7)

(a) 56 m (b) 48 m (c) 28 m (d) 24 m

Q3. If a right circular cone of height 24 cm has a volume of 1232 cm3, then the area of its curved surface (taking π= 22/7) is

(a) 1254 cm2 (b) 704 cm2 (c) 550 cm2 (d) 154 cm2

Q4. If the area of a triangle is 1176 cm2 and base: corresponding altitude is 3: 4, then the altitude of the triangle is:

(a) 42 cm (b) 52 cm (c) 54 cm (d) 56 cm

Q5. If the ratio of areas of two squares is 225: 256, then the ratio of their perimeters is:

(a) 225: 256 (b) 256: 225 (c) 15: 16 (d) 16: 15

Q6. The area of an equilateral triangle is 400√3 sq.m. Its perimeter is:

(a) 120 m (b) 150 m (c) 90 m (d) 135 m

Q7. The curved surface of a cylindrical pillar is 264m2 and its volume is 924m3. The ratio of its diameter to its height is [user π= 22/7]

(a) 7 : 6 (b) 6 : 7 (c) 3 : 7 (d) 7 : 3

Q8. There is a rectangular tank of length 180 m and breadth 120 m in a circular field. If the area of the land portion of the field is 40000 m2, what is the radius of the field? (Take π= 22/7)

(a) 130m (b) 135m (c) 140m (d) 145m

Q9. A cuboidal water tank contains 216 litres of water. Its depth is 1/3 of its length and breadth is 1/2 of (1)/3 of the difference between length and depth. The length of the tank is:

(a) 72 dm (b) 18 dm (c) 6 dm (d) 2 dm

Q10. The area of a triangle is 216 cm2 and its sides are in the ratio 3 : 4 : 5. The perimeter of the triangle is:

(a) 6cm (b) 12 cm (c) 36 cm (d) 72 cm

Q11. The perimeter of a rectangle and a square are 160 m each. The area of the rectangle is less than that of the square by 100 sq m. The length of the rectangle is

(a) 30 m (b) 60 m (c) 40 m (d) 50 m

Q12. Perimeter of rectangular field is 160 metres and the difference between its two adjacent sides is 48 metres. The side of a square field, having the same area as that of the rectangle is:

(a) 32 metres (b) 8 metres (c) 4 metres (d) 16 metres

Q13. The curved surface of a cylindrical pillar is 264 m2 and its volume is 924 m3. Taking π= 22/7, find the ratio of its diameter to its height.

(a) 7: 6 (b) 6: 7 (c) 3: 7 (d) 7: 3

Q14. The perimeters of five squares are 24 cm, 32 cm, 40 cm, 76 cm and 80 cm respectively. The perimeter of another square equal in area to sum of the areas of these squares is:

(a) 31 cm (b) 62 cm (c) 124 cm (d) 961 cm

Q15. A cuboidal water tank has 216 litres of water. Its depth is 1/3 of its length and breadth is 1/2 of 1/3 of the difference of length and breadth. The length of the tank is

(a) 72 dm (b) 18 dm (c) 6 dm (d) 2 dm

Q16. The area of a rhombus is 150 cm2. The length of one of its diagonals is 10cm. The length of the other diagonal is:

(a) 25cm (b) 30cm (c) 35cm (d) 40cm

Q17. The cost of carpeting a room is Rs. 120. If the width had been 4 metres less, the cost of the carpet would have been Rs. 20 less. The width of the room is:

(a) 24m (b) 20m (c) 25m (d) 18.5m

Q18. The area of a field in the shape of a trapezium measures 1440 m2. The perpendicular distance between its parallel sides is 24m. If the ratio of the parallel sides is 5: 3, the length of the longer parallel side is:

(a) 75m (b) 45m (c) 120m (d) 60m

Q19. The perimeter of a rectangle is 160 metre and the difference of two sides is 48 metre. Find the side of a square whose area is equal to the area of this rectangle?

(a) 32 m (b) 8 m (c) 4 m (d) 16 m

Q20. A circular wire of diameter 42 cm is bent in the form of rectangle whose sides are in the ratio 6 : 5. The area of the rectangle is (user π= 22/7)

(a) 540 cm2 (b) 1080 cm2 (c) 2160 cm2 (d) 4320 cm2

Q21. If the height of a cylinder is increased by 15 per cent and the radius of its base is decreased by 10 per cent then by what percent will its curved surface area change?

(a) 3.5 per cent decrease (b) 3.5 per cent increase

(c) 5 per cent increase (d) 5 per cent decrease

Q22. The base and altitude of a right angled triangle are 12 cm and 5 cm respectively. The perpendicular distance of its hypotenuse from the opposite vertex is

(a) 44/13 cm (b) 48/13 cm (c) 5 cm (d) 7 cm

Q23. In right circular cone, the radius of its base is 7 cm and its height 24 cm. A cross-section is made through the midpoint of the height parallel to the base. The volume of the upper portion is

(a) 169 cm3 (b) 154 cm3 (c) 1078 cm3 (d) 800 cm3

Q24. A wire, bent in the form of a square, encloses an area of 484 cm2. If the same wire is bent so as to form a circle, then the area enclosed will be: (Use π= 22/7)

(a) 484 cm2 (b) 538 2/7 cm2 (c) 616 cm2 (d) 644 cm2

Q25. A cone of height 15 cm and base diameter 30 cm is carved out of a wooden sphere of radius 15 cm. The percentage of wasted wood is:

(a) 75% (b) 50% (c) 40% (d) 25%