

# CONCEPT ACADEMY

## “UTSAAH” Test Series

*“Intelligence plus character-that is the goal of true education.”*

**-Martin Luther King Jr.**

**Subject –Maths X | NDA I**

### Topic Covered:-

### Chapter 8:- Area Related to Circles

- The area of a sector of a circle with radius 21cm and sector angle of  $120^\circ$  is  
 (a) **462 sq cm**  
 (b) 288 sq cm  
 (c) 256 sq cm  
 (d) 128 sq cm
- The area of a quadrant of a circle with circumference of 22 cm is  
 (a)  $77 \text{ cm}^2$   
 (b)  **$77/8 \text{ cm}^2$**   
 (c)  $35.5 \text{ cm}^2$   
 (d)  $77/2 \text{ cm}^2$
- In a circle of radius 14 cm, an arc subtends an angle of  $30^\circ$  at the centre, the length of the arc is  
 (a) 44 cm  
 (b) 28 cm  
 (c) 11 cm  
 (d)  **$22/3 \text{ cm}$**
- The perimeter of circle is equal to that of a square, then ratio of their areas is  
 (a) 22:7  
 (b) **14:11**  
 (c) 28:7  
 (d) 7:11
- The ratio of areas of incircle and circumference of a square is  
 (a) **1:2**  
 (b) 1:4  
 (c) 1:3  
 (d) 2:1
- If the area of the circle is 154 sq cm, then its perimeter is  
 (a) 11cm  
 (b) 22cm  
 (c) **44cm**  
 (d) 55cm
- The perimeter of a circle having radius 5cm is equal to:  
 (a) 30 cm  
 (b) 3.14 cm  
 (c) **31.4 cm**  
 (d) 40 cm
- The area of a circle whose circumference is 22 cm, is  
 (a)  $\pi \text{ cm}^2$   
 (b)  **$38.5 \text{ cm}^2$**   
 (c)  $22 \text{ cm}^2$   
 (d)  $77 \text{ cm}^2$
- The area of the circle that can be inscribed in a square of side 8 cm is  
 (a)  $36 \pi \text{ cm}^2$   
 (b)  **$16 \pi \text{ cm}^2$**   
 (c)  $12 \pi \text{ cm}^2$   
 (d)  $9 \pi \text{ cm}^2$
- The area of the square that can be inscribed in a circle of radius 8 cm is  
 (a) 256 cm<sup>2</sup>  
 (b) **128 cm<sup>2</sup>**  
 (c) 642 cm<sup>2</sup>  
 (d) 64 cm<sup>2</sup>
- If the area of a circle is 154 cm<sup>2</sup>, then its perimeter is  
 (a) 11 cm  
 (b) 22 cm  
 (c) **44 cm**  
 (d) 55 cm

12. If the sum of the areas of two circles with radii  $R_1$  and  $R_2$  is equal to the area of a circle of radius  $R$ , then

- (a)  $R_1 + R_2 = R$
- (b)  $R_1^2 + R_2^2 = R^2$**
- (c)  $R_1 + R_2 < R$
- (d)  $R_1^2 + R_2^2 < R^2$

13. The area of circle is 2664 sq. cm, then the diameter is given by

- (a) 7cm
- (b) 14cm
- (c) 28cm
- (d) 56cm**

14. If the perimeter of the circle and square are equal, then the ratio of their areas will be equal to:

- (a) 14:11**
- (b) 22:7
- (c) 7:22
- (c) 11:14

15. Area of the circle with radius 5cm is equal to:

- (a) 60 sq.cm
- (b) 75.5 sq.cm
- (c) 78.5 sq.cm**
- (d) 10.5 sq.cm

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