GRAND TEST#2

1.If a point of a 21 cm radius fly wheel travels 5040 meter in a minute. Through how many radians does the wheel turn in one second?

2. A belt 24.75 meters long passes around a 2.5 cm diameter pulley. As the belt makes 4 complete revolutions in a minute, find the number of radians through which the wheel turns in one second

3. If sin = , p () lies in the third quadrant, find all the remaining trigonometric functions

4. If a = b = c, then prove that r1 : R : r = 3 : 2 : 1

5. A piece of plastic strip 1 meter is bent to form an isosceles triangle with 95o as its largest angle. Find the length of the sides

6. An Aeroplane is flying at a height of 9000m. If the angle of depression of a field market is 23o, find the aerial distance.

7. The measures of two sides of a triangle are 4 cm and 5 cm, find the third side such that area of the triangle is 6 sq. cm.

8.prove that:

\* = \* + = 2 \* =

\* ( + ). ( - ) = - \* = -

**MCQS**

1. radians in degree equal to:

a. 600 b. 900 c.1200 d. 1500

2. radians in degree equal to:

a. 600 b. 900 c.1200 d. 1500

3. If 𝑡𝑎𝑛𝜃 = −1 /3and 𝑠𝑖𝑛𝜃 is negative, (𝜃) lies in this quadrant.

a. 3rd quadrant b. 1st quadrant c. 4𝑡h𝑞𝑢𝑎𝑑𝑟𝑎𝑛𝑡 d. 2nd quadrant

4. The area of a circle of radius r is:

a. 2𝜋𝑟 b. c. 𝜋𝑟2 d. 2𝜋𝑟2

5.The basic unit of angle is

a.radian b.degree c.both d.none

6.if the arc length and radius of the circle is equal then the angle becomes

a.radian b.degree c.both d.none

7.The distance ‘’ of the point (x1, y1) from the origin is given by:

A) B) C) D)

8. ( + ) – ( - ) =?

A) 2 B) -2 C) -2 D) 2

9.Which one is false?

A) 2 = 2 B) 2 = 2 - 2

C) 2 = 2-1 D) 2 =

10.4– 4=?

A) 2 B) 2 C) D)

11.Which one is not true?

A) (-) = + B) (-) =

C) (+) = D) (270o + ) =

12.In a triangle ABC, , which angle is the smallest?

A) B) C) D) None

13.In a right of the triangle *ABC* with right angle at B, which one is true

A) B) C) D)

14.Which one is true?

1. B)

C) D)

15.Which one is known as Hero’s formula?

1. B)

C) D)

16.In a triangle . The largest angle is

1. B) C) D) None