# **NEW STANDARD ACADEMY**

### SEMRI KOTHI SUPER MARKET, RAEBARELI

### **CLASS 10 (Maths) DPP (Academy)14-05-2024**

d) No solution

b)  $b^2$ -4ac

d)  $\frac{b2-2ac}{c^2}$ 

1. Number of real solution of  $(X^27x + 11)^{x^2-11x+30} = 1$  is

2. If 'r' and 's' are the roots of equation  $ax^2+bx+c=0$  is

a) 4c) 6

3.	If the sum of the two roots of the equation product of two roots is	$\frac{1}{x+a} + \frac{1}{x+b} = \frac{1}{c}$ is zero, then the $b)\frac{a^2+b^2}{a^2}$	
	a) 0	b)— <u>2</u>	
	c) $\frac{a+b}{2}$	d) $-\frac{(a^2+b^2)}{2}$	
4.	A group of girls planned a picnic. The budget for food was rs. 2400. Due to illness, 10 girls could not go to picnic and cost of food for each girl increased by RS. 8. How many girls had planned the picnic?  a) 60  b) 50		
	c) 65	d) 57	
5.	The number of root satisfying the equal a) 1	ation $\sqrt{5-x} = x\sqrt{5-x}$ is / are : b) 2	
	c) 3	d) 0	
6.	If 2 is a root of the equation $x^2+bx+12=$ equal roots, then $q =$	is a root of the equation $x^2+bx+12=0$ and the equation $x^2+bx+q-0$ has all roots, then $q =$	
	a) 8	b) -8	
	c) 16	d) -16	

7.	•	ne quadration $x^2$ -6x-2=0 and if $a_n = \alpha^n - \beta^n$ , then
	the value of $\frac{a_{10}-2_{a_8}}{2_{a_9}}$ is:	
	a) 6.0	b) 5.2
	c) 5.0	d) 3.0
8.	What will be the difference	of the roots of quadratic equation $4y^2-4y+1=0$ ?
	a) 0	b) 1
	c) $-\frac{1}{2}$	d) 2
9.	Graph drawn from the equa	ation $y= x2-3x-4$ will be:
	a) Circle	b) Parabola

10. If roots of the equation  $(a^2 + b^2)x^2 - 2(ac + bd)x + (c^2 + d^2) =$ 

d) Hyperbola

b) 0

d) 2

c) Straight line

a) 1

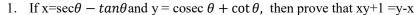
c) -1

0 are equal then bc - ad =

## **NEW STANDARD ACADEMY**

#### SEMRI KOTHI SUPER MARKET, RAEBARELI

### CLASS 11 (Maths) DPP (Academy)14-05-2024



- 2. Prove that  $\frac{Sinx-cosx+}{sinx+cos-1} = secx + tanx$ .
- 3. If  $2 \cos x + \sin x = 1$  then find the value of  $7 \cos x + 6 \sin x$ .
- 4. If  $\sin x + \sin^2 x + \sin^3 x = 1$  then find the value of  $\cos^6 x 4 \cos^4 x + 8\cos^2 x$ .
- 5. Let (-3,-4) be a point on the terminal side of  $\theta$ . Find the sine cosine and tangent of  $\theta$
- 6. Evaluate each of the following trigonometric functions:
  - a)  $\cos \frac{4\pi}{2}$

- b)  $\tan (-210^{\circ})$
- c) cosec  $\frac{11\pi}{4}$
- 7. State if the given angles are coterminal.
  - -185°, 535° i)
- ii) 1000° 270°
- iii)  $\frac{15\pi}{4} \frac{17\pi}{4}$
- 8. If cosec A+cot  $A=\frac{11}{2}$ , than tan A=

- b)  $\frac{15}{16}$  c)  $\frac{44}{117}$  d)  $\frac{117}{43}$
- 9. If  $\sin \theta = \frac{24}{25}$  and  $\theta$  lies in the second quadrant, then  $\sec \theta + \tan \theta =$
- b) -5
- c) -7
- 10. If  $\sin(\alpha \beta) = \frac{1}{2}$  and  $\cos(\alpha + \beta) = \frac{1}{2}$ , where  $\alpha$  and  $\beta$  are positive acute angles, then
  - a)  $\alpha = 45^{\circ}$ ,  $\beta = 15^{\circ}$
  - b)  $\alpha = 15^{\circ}, \beta = 45^{\circ}$
  - c)  $\alpha = 60^{\circ}, \beta = 15^{\circ}$
  - d) None of these