DPP-1 **BATCH COURSE TIMINGS 7:15P.M-8:15 P.M(EMERGE CLASS 11th)/5 P.M-6:30P.M (EXPERT BATCH)**

C - III **JAI SHREE RAM**

1. Both the roots of given equation

$(x-a)(x-b)+(x-b)(x-c)+(x-c)(x-a)=0$ are always

(a) Positive (b) Negative (c) Real (d) Imaginary

2. If the roots of $(b-c)x^2+(c-a)x+(a-b)=0$ are equal then $a+c=$

(a) 2b (b) b^2 (c) 3b (d) b

3. If the roots of equation $\frac{1}{x+p}+\frac{1}{x+q}=\frac{1}{r}$ are equal in magnitude but opposite in sign, then $(p+q)=$

(a) 2r (b) r (c) - 2r (d) None of these

4. If 3 is a root of $x^2+kx-24=0$, it is also a root of

(a) $x^2+5x+k=0$ (b) $x^2-5x+k=0$

(c) $x^2-kx+6=0$ (d) $x^2+kx+24=0$

5. For what values of k will the equation

$x^2-2(1+3k)x+7(3+2k)=0$ have equal roots

(a) 1, -10/9 (b) 2, -10/9 (c) 3, -10/9 (d) 4, -10/9

6. If the difference between the corresponding roots of

$x^2+ax+b=0$ and $x^2+bx+a=0$ is same and $a\neq b$, then

(a) $a+b+4=0$ (b) $a+b-4=0$

(c) $a-b-4=0$ (d) $a-b+4=0$

7. If the sum of the roots of the quadratic equation

$ax^2+bx+c=0$ is equal to the sum of the squares of their

reciprocals, then $a/c, b/a, c/b$ are in

(a) A.P. (b) G.P. (c) H.P. (d) None of these

8. If the roots of the equation $x^2-5x+16=0$ are α, β and the roots of equation $x^2+px+q=0$ are $\alpha^2+\beta^2$, $\alpha\beta/2$, then

(a) $p=1, q=-56$ (b) $p=-1, q=-56$

(c) $p=1, q=56$ (d) $p=-1, q=56$

9. If $\alpha\neq\beta$, but $\alpha^2=5\alpha-3, \beta^2=5\beta-3$, then the equation whose roots are $\frac{\alpha}{\beta}$ and $\frac{\beta}{\alpha}$ is

REF CODE MLJSIRLIVE(10 % OFF) WITH COMPLETE PERSONAL GUIDANCE SUPPORT

(a) $x^2-5x-3=0$ (b) $3x^2-19x+3=0$

(c) $3x^2+12x+3=0$ (d) None of these

10. If α and β are roots of the equation $x^2-ax+b=0$ and $V_n=\alpha^n+\beta^n$, then

(a) $V_{n+1}=a\,V_n-b\,V_{n-1}$ (b) $V_{n+1}=b\,V_n-a\,V_{n-1}$

(c) $V_{n+1}=a\,V_n+b\,V_{n-1}$ (d) $V_{n+1}=b\,V_n+a\,V_{n-1}$

1. (c) 2.A 3.A 4.C 5.B 6.A 7.C 8.B9.B 10.A