Mathematics FA Part 1 Online Test

Sr	Questions	Answers Choice
1	Question Image	A. linear equation B. Quadraticequation C. cubicequation D. radicalequation
2	If the sum of the roots of ax^2 - (a + 1) x + (2a + 1) = 0 is 2, then the product of the roots is:	A. 1 B. 2 C. 3 D. 4
3	If the roots of x^2 - bx + c = 0 are two consecutive integers, then: b^2 - 4ac =	A. 0 B. 1 C. -1 D. 2
4	For what value of k, the sum of the roots of the equation x^2 + kx + 4 = 0 is equal to the product of its roots:	A. ±1 B. 4 C. ±4 D. -4
5	If the sum of the roots of the equation kx^2 - 2x + 2k = 0 is equal to their product, then the value of k is:	A. 1 B. 2 C. 3 D. 4
6	The ration of the sum and product of roots of $7x^2$ - 12x + 18 = 0 is:	A. 7:12 B. 2:3 C. 3:2 D. 7:18
7	Synthetic division is a process of:	A. division B. subtraction C. addition D. multiplication
8	If a polynomial P(x) = x2 + 4x2 - 2x + 5 is divided by x - 1, then the reminder is:	A. 8 B. -2 C. 4 D. 5
9	Sum of all four fourth roots of unity is:	A. 1 B. 0 C. -1 D. 3
10	Sum of all three cube roots of unity is:	A. 1 B. -1 C. 0 D. 3
11	How many complex cube roots of unity are there:	A. 2 B. 0 C. 1 D. 3
12	Complex roots of real quadratic equation always occur in:	A. conjugate pair B. ordered pair C. reciprocal pair D. none of these
13	The roots of the equation:	A. complex B. irrational C. rational D. none of these
14	If α, ß are the roots of x^2 + kx + 12=0 such that α-ß = 1 then K = :	A. 0 B. ±5 C. ±7 D. ±15
15	If α, ß are complex cube roots of unity, then 1 + $α^n$ + $ß^n$ = ... where n is a positive integer divisible by 3:	A. 1 B. 3 C. 2 D. 4

16	$3^{2x} - 3^{x} - 6 = 0$ is:	A. reciprocal equation B. exponentialequation C. radicalequation D. none of these
17	Question Image	A. quadratic equation B. reciprocal equation C. exponential equation D. none of these
18	One of the roots of the equation 3x2 + 2x + k = 0 is the reciprocal of the other, then k = ...:	A. 3 B. 2 C. 1 D. 4
19	If P(x) is a polynomial of degree m and Q(x) is a polynomial of degree n, the quotient P(x) + Q(x) will produce a polynomial of degree:	A. m . n, plus a quotient B. m - n, plus a remainder C. m ÷ n, plus a factor D. m + n, plus a remainder
20	If P(x) is a polynomial of degree m and Q(x) is a polynomial of degree n, the product P(x) . Q(x) will be a polynomial of degree:	A. m . n B. m - n C. m + n D. m × n