NAT I Engineering Mathematics

Sr	Questions	Answers Choice
1	The cube roots of unity ω = ------------------------	A. $1-i\ \sqrt{-3}\ /\ 2$ B. $-1+i\ \sqrt{-3}\ /\ 2i$ C. $-1+i\ \sqrt{3}\ /\ 2$ D. $1+i\ \sqrt{3}\ /\ 2$
2	One of the roots of the equation $2x^2 + 3x + n = 0$ is the reciprocal of the other, then n = ----------------	A. Both A,B have the same number of columns B. Both A,B do not have the same order C. Number of col A is same as number of rows of B D. Number of rows of A is same as number of col of B
3	The degree of the polynomial $2x^4 + 3x^2 + 16x + 28 = x^4 + 2x^2$ is	A. $[a_{ij} - b_{ji}]$ B. $[a_{ij} - b_{ij}]$ C. $[a_{ij} - b_{ij}]$ D. $[a_{ij}] - [b_{ij}]$
4	If α and β be irrational roots of a quadratic equation, then	A. $\alpha = b/a$ and $\beta = ca$ B. $\alpha = a/b$ and $\beta = -c/a$ C. $\alpha^2 + \beta^2 = 1$ D. $\alpha = -b/a$ and $\beta = c/a$
5	An m x n matrix is said to be rectangular if	A. Forms a group w.r.t. addition B. Non commutative group w.r.t. multiplication C. Forms a group w.r.t. multiplication D. Doesn't form a group
6	If the order of A is n x m. Then order of kA is	A. Forms a group B. Does not form a group C. Contains no additive identity D. Contains no additive inverse
7	If A and B are matrices such that AB=BA=I then	A. A and B are multiplicative inverse of each other B. A and B are additive inverses of each other C. A and B are singular matrices D. A and B are equal
8	If any two rows (or any two columns) of a square matrix are inter changed, the determinant of the resultant matrix is	A. True B. False C. Fallacious D. Some times true
9	In general matrices do not satisfy	A. Not a group B. A group w.r.t. subtraction C. A group w.r.t. division D. A group w.r.t. multiplication
10	If A and B are matrices of same order than (A + B)(A + B)=	A. addition B. multiplication C. subtraction D. None