NAT I Engineering Mathematics

Sr	Questions	Answers Choice
1	If the vector 2i+4j-2k and 2i +6j+xk are perpendicular then x-7	A. 4 B. 8 C. 14 D. 7
2	If the angle between two vectors with magnitude 8 and 2 is 60° then their scalar product is	A. 12 B. 8 C. 16 D. 1
3	The direction cosines of y-axis are	A. 1,0,0 B. 0,1,0 C. 0,0,1 D. 1,1,1
4	If i,m,n are the direction cosines of a vector $\overline{OP}$ then	A. l² + m² + n² =0 B. l² - m² + n² =1 C. l² + m² + n² =1 D. l² + m² - n² =0
5	The magnitude of a vector can never be	A. Zero B. Negative C. Positive D. Absolute
6	Unit vector in the positive direction of x-axis is	A. $\hat{i}$ B. $\hat{j}$ C. $\hat{k}$ D. All
7	The two different parts of the hyperbola are called is	A. Vertices B. Directrices C. Nappes D. Branches
8	The line through the center and perpendicular to the transverse axis is called the	A. Major axis B. Minor axis C. Focal axis D. Conjugate axis
9	The vertices of the ellipse $x^2 + 4y^2 = 16$ are	A. (±,4,0) B. (0,±,4) C. (± 2,0) D. (0,± 2)
10	The end points of the major axis of the ellipse are called its	A. foci B. Vertices C. Co-vertices D. eccentricity