

1. Define vector product of two vectors. If vectors A & B are inclined at an angle of  $0$  degree with respect to each other, show that  $\mathbf{A} \times \mathbf{B} = -\mathbf{B} \times \mathbf{A}$  (Year - 1995)
2. Explain commutative & distributive law of dot product (Year - 1994)
3. If  $\mathbf{A} = A_1\mathbf{i} + A_2\mathbf{j} + A_3\mathbf{k}$   $\mathbf{B} = B_1\mathbf{i} + B_2\mathbf{j} + B_3\mathbf{k}$  then Prove that  $\mathbf{A} \cdot \mathbf{B} = A_1B_1 + A_2B_2 + A_3B_3$  (Year - 1994)
4. What are the vector & scalars quantities? (Year - 1993)

For complete Preparation

Aga Khan Board according to SLO's

**Tec - The Education Center**

Call: 0322 - 2610578

5. Two forces  $\mathbf{F}_1$  &  $\mathbf{F}_2$  are acting at a point making an angle ' $\theta$ '. Assuming that  $\mathbf{F}_1$  vector is along x-axis, find the magnitude & direction of the resultant force by resolving them into their rectangular components? (Year - 1993)
6. Define the Scalars Product of two vectors. What are the properties of Scalars Products? Give at least one example of Scalar Product (Year - 1992)
7. What do you understand by dot product & cross product of two vectors? Explain. Give at least one example of each product (Year - 1991)
8. Will the value of a vector quantity change if its reference axes are changed? Explain. (Year - 1991)
9. Show that cross product of a vector is not commutative –  $\mathbf{B} \times \mathbf{A} = -\mathbf{A} \times \mathbf{B}$  . Prove that the magnitude of cross product of two vectors gives the area of parallelogram. (Year - 2010)

Best Educational Website for Demo tests, Test papers, Past Papers & MCQ's

**Aga Khan Board / Karachi Board**

Visit: **[www.tec.edu.pk](http://www.tec.edu.pk)**