KQS COACHING CENTER

|Date: _____||Class: XI | | Paper: Physics | | Time: 60 minutes | |Max. Marks: 25 | |Test # 3|

|NAME:_____ | |F.NAME:_____|

Q1: Two tugboats are towing a ship, Each exerts a force of 6000 N, and the angle between the two ropes is 50°,Calculate the resultant force on the ship.

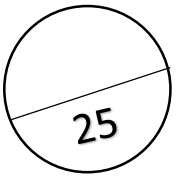
Q2: A car weighing 10,000 N on a hill which makes an angle of 30° with the horizontal. Find the components of car weight parallel and perpendicular to the road.

Q3: find the projection of the vector $\vec{A} = \hat{\imath} - 2\hat{\jmath} + \hat{k}$ onto the direction of vector $\vec{B} = 3\hat{\imath} - 6\hat{\jmath} + 2\hat{k}$.

Q4: Two vectors $\vec{A}$ and $\vec{B}$ are such that $|\vec{A}| = 3$, $|\vec{B}| = 4$ and $\vec{A} \cdot \vec{B} = -5$

Find the angle between $(\vec{A} + \vec{B})$ and $(\vec{A} - \vec{B})$.

Q5: Prove that Area of parallelogram is equal to cross product.



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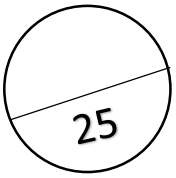

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