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NEET MOTION IN A PLANE — SCALARS AND VECTORS, ADDITION AND SUBTRACTION OF VECTORS — PYQS

Max. Marks: 20 **Questions:** 5

Section A (MCQ) — 5 questions

Q.1 If the magnitude of sum of two vectors is equal to the magnitude of difference of the two vectors, the angle between these vectors is [NEET 2016 (Phase 1)]

(1) 45° (2) 180° (3) 0° (4) 90°

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Q.2 A body is moving with velocity 30 m/s towards east. After 10 seconds its velocity becomes 40 m/s towards north. The average acceleration of the body is [AIPMT 2011 (Prelims)]

(1) 1 m/s^2 (2) 7 m/s^2

(3) $\sqrt{7}$ m/s^2 (4) 5 m/s^2

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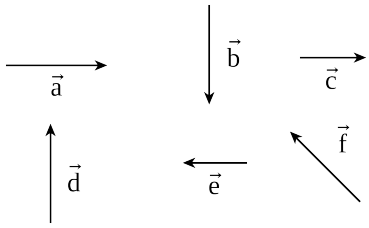
Q.3 Six vectors, $\vec{a}$ through $\vec{f}$ have the magnitudes and directions indicated in the figure. Which of the following statements is true? [AIPMT 2010 (Prelims)]



(1) $\vec{b}+\vec{c}=\vec{f}$ (2) $\vec{d}+\vec{c}=\vec{f}$

(3) $\vec{d}+\vec{e}=\vec{f}$ (4) $\vec{b}+\vec{e}=\vec{f}$

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Q.4 The vectors $\vec{A}$ and $\vec{B}$ are such that $|\vec{A}+\vec{B}|=|\vec{A}-\vec{B}|$. The angle between the two vectors is [AIPMT 2006]

(1) 45° (2) 90° (3) 60° (4) 75°

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Q.5 If $|\vec{A}+\vec{B}|=|\vec{A}|+|\vec{B}|$, then angle between $\vec{A}$ and $\vec{B}$ will be [AIPMT 2001]

(1) 90° (2) 120° (3) 0° (4) 60°

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ANSWER KEY

Ques.	1	2	3	4	5						
Ans.	**4**	**4**	**3**	**2**	**3**						