



SMART TEST SERIES

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Name:		Subject:	Physics-11
Roll # :		Unit(s):	2,
Class:	Inter Part-I	Test:	Type 1 - MCQs Test - Marks=20
Date:		Time:	

Q.1 Four possible answers A, B, C & D to each question are given. Circle the correct one. (20x1=20)

- 1 If A_x and A_y both are negative, the resultant vector will lie in:
(A) First quadrant (B) Second quadrant (C) Third quadrant (D) Fourth quadrant
- 2 If $\vec{A} = 2\hat{i} + \hat{j} + 2\hat{k}$ then $|\vec{A}|$ is:
(A) Zero (B) 3 (C) 5 (D) 9
- 3 The y-component of vector 100N force, making an angle of 30° with the x-axis is:
(A) 50N (B) 20N (C) 10N (D) 80N
- 4 The reverse process of vector addition is called:
(A) Subtraction of vectors (B) Resolution of a vector (C) Negative of a vector
(D) Multiplication of a vector
- 5 The resultant of two forces 3N and 4N acting at right angle to each other is:
(A) 7 N (B) 1 N (C) 5 N (D) 4 N
- 6 In which quadrant vector $2\hat{i} - 3\hat{j}$ lies:
(A) 1st (B) 2nd (C) 4th (D) 3rd
- 7 If R_x is negative and R_y is positive and resultant lies in quadrant:
(A) 1st (B) 2nd (C) 3rd (D) 4th
- 8 Dot product of two non-zero vectors is zero if angle between them is:
(A) 30° (B) 60° (C) 45° (D) 90°
- 9 The magnitude of vector product of two non-zero vectors \vec{A} and \vec{B} is:
(A) $AB\cos\theta$ (B) $AB\sin\theta$ (C) $AB\sin\theta$ (D) $AB\sin\theta\cos\theta$
- 10 The cross product of two anti-parallel vectors is:
(A) 0 (B) 1 (C) Maximum (D) Negative
- 11 $(\hat{i} \times \hat{j}) \times \hat{k} + (\hat{j} \times \hat{i}) \times \hat{i}$ will be:
(A) $-\hat{j}$ (B) \hat{j} (C) \hat{i} (D) $\vec{0}$
- 12 If $A = 2\hat{i}$ and $B = 3\hat{i} + 4\hat{j}$, then $A \cdot B$ is
(A) 1 (B) Zero (C) 14 (D) 6
- 13 The cross product of $\hat{j} \times \hat{k}$ is equal to:
(A) 0 (B) \hat{i} (C) 1 (D) $-\hat{i}$
- 14 The magnitude of $\hat{j} \times \hat{k}$ is:
(A) 0 (B) 1 (C) -1 (D) \hat{i}
- 15 If $AB\sin\theta = AB\cos\theta$ then the angle between \vec{A} and \vec{B} is:
(A) 30° (B) 45° (C) 60° (D) 180°
- 16 If $\vec{A} \times \vec{B}$ is along y-axis, then \vec{A} and \vec{B} are in:
(A) x - y Plane (B) y - z Plane (C) Space (D) x - z Plane
- 17 Torque acting on a particle with respect to the origin is given by:
(A) $T = r \cdot F$ (B) $T = r \times F$ (C) $T = \frac{1}{2}(r \cdot F)$ (D) $T = r \times \frac{1}{2}F$
- 18 Conventionally anti-clockwise torque is taken as:
(A) zero (B) negative (C) positive (D) neither positive nor negative
- 19 Conventionally, clockwise torque is taken as:
(A) negative (B) positive (C) zero (D) neither positive nor negative
- 20 Two equal and opposite forces acting on a body form a:
(A) linear momentum (B) torque (C) angular momentum (D) couple