

EXERCISE 5

Multiple Choice Questions (MCQs)

Four options are given in each of the following questions fill the circle in front of that choice which you think is correct. Cutting or filling two or more circles is not allowed:

- Q.1
- (i) If a constant force \vec{F} acts on a particle during any interval of time and the particle undergoes a displacement \vec{d} , the work done by the force is
 (a) $\vec{F} + \vec{d}$ (b) $\vec{F} - \vec{d}$ (c) $\vec{F} \times \vec{d}$ (d) $\vec{F} \cdot \vec{d}$
- (ii) The work done by a variable force \vec{F} is
 (a) $\int \vec{F} d\vec{r}$ (b) $\int \vec{F} \times d\vec{r}$ (c) $\int \vec{F} \cdot d\vec{r}$ (d) $\vec{F} \cdot d\vec{r}$
- (iii) The work done by a number of forces acting on a particle is _____ the work done by their resultant.
 (a) less than (b) equal to (c) greater than (d) none of these
- (iv) Any line perpendicular to the plane of a couple is called the _____ of the couple.
 (a) arm (b) moment (c) axis (d) none of these
- (v) The moment of a couple equals the _____ of the moments of its components about any point of space.
 (a) sum (b) difference (c) product (d) none of these
- (vi) The physical effect of a couple acting on a rigid body is to give _____ to the body about the axis of the couple.
 (a) rotation (b) translation (c) motion (d) none of these
- (vii) _____ forces are those forces which the different parts of a system exert on each other.
 (a) External (b) Internal (c) Central (d) none of these
- (viii) _____ forces are those forces which are not due to any part of the system but which are due to some external agency.
 (a) External (b) Internal (c) Central (d) none of these
- (ix) Internal forces _____ Newton's Third Law of Motion.
 (a) never obey (b) obey (c) do not obey (d) none of these
- (x) Applied forces and forces of constraint are two types of _____ forces.
 (a) external (b) internal (c) central (d) none of these

- (xi) When a particle or body is made to move along or rest on a curve or surface, the force exerted by such curve or surface is called _____ force.
 (a) central (b) active (c) reactive (d) none of these
 (a) (b) (c) (d)
- (xii) An external force which is not due to any constraint is called _____ force.
 (a) central (b) active (c) reactive (d) none of these
 (a) (b) (c) (d)
- (xiii) If a particle rests on or moves along an inclined plane, the reaction of plane is _____ force.
 (a) central (b) active (c) reactive (d) none of these
 (a) (b) (c) (d)
- (xiv) If a particle rests on or moves along an inclined plane, the weight of the particle is _____ force.
 (a) central (b) active (c) reactive (d) none of these
 (a) (b) (c) (d)
- (xv) If a set of particles or a body in equilibrium is supposed to undergo a displacement, the forces acting thereon being regarded as constant during the displacement, then such a displacement is called _____
 (a) angular (b) virtual (c) reactive (d) none of these
 (a) (b) (c) (d)
- Q.2**
- (i) Constraints in which the sum of the virtual works of all the forces of constraints in any virtual displacement of a system is _____ is called workless or ideal constraints.
 (a) negative (b) zero (c) positive (d) none of these
 (a) (b) (c) (d)
- (ii) The reaction of a smooth surface with which the body is in contact is _____ constraint.
 (a) not a workless (b) a workless (c) not an ideal (d) none of these
 (a) (b) (c) (d)
- (iii) The reaction of a fixed point or fixed axis of a body is _____ constraint.
 (a) not a workless (b) not an ideal (c) a workless (d) none of these
 (a) (b) (c) (d)
- (iv) Reaction at the point of contact of a fixed surface on which a body rolls without sliding is _____ constraint.
 (a) not a workless (b) not an ideal (c) a workless (d) none of these
 (a) (b) (c) (d)
- (v) The mutual action and reaction of two bodies which roll upon each other is _____ constraint.
 (a) not a workless (b) not an ideal (c) a workless (d) none of these
 (a) (b) (c) (d)
- (vi) Tension of an inextensible string is _____ constraint.
 (a) not a workless (b) not an ideal (c) a workless (d) none of these
 (a) (b) (c) (d)

- (xii) When a particle or body is made to move along or rest on a curve or surface, the force exerted by such curve or surface is called _____ force.
 (a) central (b) active (c) reactive (d) none of these
- (xiii) An external force which is not due to any constraint is called _____ force.
 (a) central (b) active (c) reactive (d) none of these
- (xiv) If a particle rests on or moves along an inclined plane, the reaction of plane is _____ force.
 (a) central (b) active (c) reactive (d) none of these
- (xv) If a particle rests on or moves along an inclined plane, the weight of the particle is _____ force.
 (a) central (b) active (c) reactive (d) none of these
- (xvi) If a set of particles or a body in equilibrium is supposed to undergo a displacement, the forces acting thereon being regarded as constant during the displacement, then such a displacement is called _____.
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- Q.2**
- (i) Constraints in which the sum of the virtual works of all the forces of constraints in any virtual displacement of a system is called _____ workless or ideal constraints.
 (a) negative (b) zero (c) positive (d) none of these
- (ii) The reaction of a smooth surface with which the body is in contact is _____ constraint.
 (a) not a workless (b) a workless (c) not an ideal (d) none of these
- (iii) The reaction of a fixed point or fixed axis of a body is _____ constraint.
 (a) not a workless (b) not an ideal (c) a workless (d) none of these
- (iv) Reaction at the point of contact of a fixed surface on which a body rests without sliding is _____ constraint.
 (a) not a workless (b) not an ideal (c) a workless (d) none of these
- (v) The mutual action and reaction of two bodies which roll upon each other is _____ constraint.
 (a) not a workless (b) not an ideal (c) a workless (d) none of these
- (vi) Tension of an inextensible string is _____ constraint.
 (a) not a workless (b) not an ideal (c) a workless (d) none of these

MTH304 Statics

Question No : 32 of 52

Marks: 1 (Budgeted Time Min

Correct condition for state of equilibrium in principle of moment is-----.

Answer (Please select your correct option)

Distance between the two objects in beam balance should be same

Resultant force should be zero

The weight of both objects on the beam balance should be same

The tension should be equal on both sides

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Done

Start

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A rigid body or set of rigid bodies subject to workless constraints is in equilibrium if and only if virtual work is done by the applied forces and applied torques in any arbitrary infinitesimal displacement consistent with the constraints.

Answer (Please select your correct option)

Negative

Zero

Positive

None of these

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MTH304 Statics

Question No : 17 of 52

Marks: 1 (Budgeted Time Min)

If a particle rests on or moves along an inclined plane, the reaction of plane is..... force.

Answer (Please select your correct option)

Central

Active

Reactive

None of these

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17



The direction of friction is ----- to the direction in which the body moves or tends to move.

Answer (Please select your correct option)

Parallel

Opposite

Normal

None of these

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115:00

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Done

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MTH304 Statics

BC180

Question No : 14 of 52

Marks: 1 (Budgeted Time Min)

..... Forces are those forces which are not due to any part of the system but which are due to some external agency.

Answer (Please select your correct option)

External

Internal

Central

None of these

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117:00

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MTH304 Statics

Question No : 15 of 52 Marks: 1 (Budgeted)

Internal forces ----- Newton's Third law of motion.

Answer (Please select your correct option)

- Never obey
- Obey
- Do not obey
- None of these

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MTH304 Statics

Question No : 8 of 52

Marks: 1 (Budgeted Time)

If a body changes its position with respect to its surrounding then it is said to be in state of.....

Answer (Please select your correct option)

Motion

Rest

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The physical effect of a couple acting on a rigid body is to give to the body about the axis of the couple.

Answer (Please select your correct option)

Rotation

Translation

Motion

None of these

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13





MTH304 Statics

B4

Question No : 31 of 52 Marks: 1 (Budgeted Time Min)

Moment of force is defined as -----.

Answer (Please select your correct option)

- Product of the force 'F' and the perpendicular distance 'd' moved in the direction of force
- Quotient of the force 'F' and the perpendicular distance 'd' moved in the direction of force
- Product of the force 'F' and the perpendicular distance 'd' from line of action of the force to the pivot
- Quotient of the force 'F' and the perpendicular distance 'd' from line of action of the force to the pivot

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A body of negligibly small dimension is called a.....

Answer (Please select your correct option)

Particle

Rigid body

Mass

None of the given

Start Time: 11:30 AM

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Done

Start

VU Examination Syste...

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Any line perpendicular to the plane of the couple is called theof the couple.

Answer (Please select your correct option)

Arm

Moment

Axis

None of these

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Time Left



12



If a set of particles or a body in equilibrium is supposed to undergo a displacement, the forces acting thereon being regarded as constant during displacement, then such a displacement is called..... displacement.

Answer (Please select your correct option)

Angular

Virtual

Reactive

None of these

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Done

Start

VU Examination syste...

New Microsoft Office Wo...

MathType (Lite mode) - ...

An external force which is not due to any constraint is called..... force or applied force.

Answer (Please select your correct option)

Central

Active

Reactive

None of these

Start Time: 11:30 AM

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Done

Start

VU Examination Syste...

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MathType (Lite mode) - ...



MTH304 Statics

Question No : 11 of 52

Marks: 1 (Budgeted Time)

The work done by a number of forces acting on a particle is the work done by their resultant

Answer (Please select your correct option)

Less than

Equal to

Greater than

None of these

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11



MTH304 Statics

Question No : 19 of 52

Marks: 1 (Budgeted Time)

The reaction of a smooth surface with which the body is in contact is constraint.

Answer (Please select your correct option)

Not a workless

A workless

Not an ideal

None of these

Start Time 11:30 AM

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Time Left



19



Normal reaction the penetration of two bodies into each other.

Answer (Please select your correct option)

Causes

Prevents

Does not prevent

None of these

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Time Left



23



friction is μ and with the other against a smooth vertical wall, then its inclination to the vertical is -----

Answer (Please select your correct option)

$\cos^{-1}(2\mu)$

$\sin^{-1}(2\mu)$

$\cot^{-1}(2\mu)$

$\tan^{-1}(2\mu)$

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Done

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Tension of an inextensible string is constraint.

Answer (Please select your correct option)

Not a workless

Not an ideal

A workless

None of these

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Done

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New Microsoft Office Wo...

MathType (Lite mode) - ...

If the friction between two bodies in contact is not zero, then the bodies are said to be ----- bodies.

Answer (Please select your correct option)

Rigid

Rough

Smooth

None of these

Start Time: 11:30 AM

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Time Left



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Done

Start

VU Examination System

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MathType (Lite mode) - ...

The ratio of limiting friction to the normal reaction is called the ----- of the friction.

Answer (Please select your correct option)

Magnitude

Direction

Coefficient

None of these

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Time Left



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Done

Start

VU Examination syste...

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MathType (Lite mode) - ...

MTH304 Statics

Question No : 35 of 52

Mark

Turning effect of force is termed as-----.

Answer (Please select your correct option)

- Action of force
- Action of torque
- Unstable action of force
- Moment of torque

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Time Left



35

The reaction of fixed point or fixed axis of a body is..... constraint.

Answer (Please select your correct option)

Not a workless

Not an ideal

A workless

None of these

Start Time 11 30 AM

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Done

Start

VU Examination Syste...

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MathType (Lite mode) - ...

No.1: Multiple Choice Questions.

The quantity of matter in a body is called its

- (a) acceleration (b) velocity (c)

A body of negligible small dimensions is termed as

- (a) Heavy body (b) Small body (c)

The concept of a particle is an ideal one and represents a geometri

- (a) ellipse (b) triangle (c)

A body may be regarded as an aggregate of

- (a) ellipses (b) triangles (c)

A body is said to be a rigid body if the distance between any two

- (a) changes (b) Remains unchanged (c)

A body is said to be rigid body if it _____ its shape in any way.

- (a) changes (b) does not change (c)

A body is said to be in motion if it _____ its position with re

- (a) Does not change (b) changes (c)

A body is said to at rest if it _____ its position with respect to it

- (a) Does not change (b) changes (c)

Rest and motion of a body are _____ concepts.

- (a) absolute (b) Not relative (c)

1- The physical quantity which changes or tends to change the stati

- (a) force (b) acceleration (c)

1- The line passing through the point of application in the direction

- (a) Line (b) force (c)

2- If a force system is equivalent to a single force \vec{R} is called the

- (a) resultant (b) component (c)

3- The branch of mechanics which deals with bodies at rest is

- (a) dynamics (b) statics (c)

4- The branch of mechanics which deals with bodies in motion is

- (a) dynamics (b) statics (c)

1- If two forces \vec{P} and \vec{Q} act at an angle α , then the angle of their resultant is

- (a) $\tan^{-1}\left(\frac{P}{Q}\right)$ (b) $\tan^{-1}\left(\frac{Q \sin \alpha}{P + Q \cos \alpha}\right)$ (c)

2- The resultant of two forces of equal magnitude will _____ the angle between them.

- (a) Not bisect (b) trisect (c)

3- Two forces of magnitude 7 and 4 units act at an angle 60° , the angle of their resultant is

- (a) $\tan^{-1}\left(\frac{2\sqrt{3}}{9}\right)$ (b) $\tan^{-1}\left(\frac{7\sqrt{3}}{15}\right)$ (c)

4- Two forces of magnitude 7 and 4 units act at an angle 60° , the angle of their resultant is

- (a) $\tan^{-1}\left(\frac{2\sqrt{3}}{9}\right)$ (b) $\tan^{-1}\left(\frac{7\sqrt{3}}{15}\right)$ (c)

5- The magnitude of the resultant forces \vec{P} and \vec{Q} acting perpendicular to each other is

- (a) $\sqrt{P^2 + Q^2}$ (b) $P^2 + Q^2$ (c)

6- The resultant of two concurrent forces $\lambda \vec{OA}$ and $\mu \vec{OB}$ is _____, where \vec{OC} is the diagonal of the parallelogram formed by \vec{OA} and \vec{OB} .

- (a) $(\lambda + \mu) \vec{OC}$ (b) $(\lambda - \mu) \vec{OC}$ (c)

7- Forces P, Q act at a point O and their resultant is R. If any transversal line AC is drawn through O, perpendicular to R, then

$$\frac{P}{OA} + \frac{Q}{OB} =$$

- (a) $\frac{R^2}{OC}$ (b) $\frac{R}{OC}$ (c)

8- The necessary and sufficient condition for a particle to be in equilibrium is

$$\vec{P}_1 + \vec{P}_2 + \dots + \vec{P}_n =$$

- (a) \vec{i} (b) \vec{j} (c)

9- If a particle is in equilibrium under the action of three forces, then the angle between any two forces is _____ to the other two.

- (a) cosine (b) sine (c)

10- If the particle is in equilibrium under the action of three forces in the same plane, then

- (a) $\frac{P}{\cot \alpha} = \frac{Q}{\cot \beta} = \frac{R}{\cot \gamma}$ (b) $\frac{P}{\tan \alpha} = \frac{Q}{\tan \beta} = \frac{R}{\tan \gamma}$ (c)

11- The tendency of a force to turn a body about a point is called the _____ of the force.

- (a) magnitude (b) direction (c)

12- If \vec{r} is the position vector of the point of application A of the force \vec{F} about O is $\vec{M} =$

- (a) $\vec{r} \cdot \vec{F}$ (b) $\vec{r} \times \vec{F}$ (c)

13- The moment of a force \vec{F} about a point O is _____ to the plane containing O and the line of action of the force.

- (a) Not perpendicular (b) parallel (c)

55- The moment of a force is _____ if the rotation is clockwise.

- (a) zero (b) positive

56- The necessary and sufficient condition for the equilibrium of a system of forces is

- (a) zero (b) positive

57- If forces are completely represented by the sides of a polygon whose moment is represented by _____ the area of the polygon.

- (a) Half of (b) twice

58- If a particle is in equilibrium under the action of three coplanar forces, the angle between the other two.

- (a) (λ, μ) Theorem (b) Lami's Theorem

59- If the concurrent forces are represented by $\lambda \overline{OA}$ and $\mu \overline{OB}$, then the angle between them is _____ that $AC:CB = \mu:\lambda$.

- (a) (λ, μ) Theorem (b) Lami's Theorem

60- The moment about a point O of the resultant of a system of coplanar forces is equal to the sum of the moments of the various forces about the same point O.

- (a) (λ, μ) Theorem (b) Lami's Theorem

61- If \vec{R} is the resultant of two forces \vec{P} and \vec{Q} acting on a particle, then the direction of \vec{R} is _____

- (a) direction (b) momentum

62- A given force \vec{R} can be replaced by an _____ number of pairs of forces.

- (a) finite (b) infinite

63- The forces \vec{P} and \vec{Q} are called the _____ components of \vec{R} .

- (a) vector (b) scalar

64- The magnitudes of forces P and Q are _____ components of the resultant R.

- (a) vector (b) scalar

65- If $\vec{r} = \vec{r}t$ is the position vector of the particle P, then the velocity of P is _____

- (a) $\frac{d\vec{r}}{dt}$ (b) $\frac{d^2\vec{r}}{dt^2}$

66- If $\vec{r} = \vec{r}t$ is the position vector of the particle P, then the acceleration of P is _____

- (a) $\frac{d\vec{r}}{dt}$ (b) $\frac{d^2\vec{r}}{dt^2}$

67- The magnitude of the velocity vector is called the _____ of the particle.

- (a) acceleration (b) velocity

68- _____ is a measure of push or pull on an object.

- (a) Force (b) Work

69- A force is a _____ quantity.

- (a) vector (b) scalar

70- Work is characterized by its magnitude, its direction, and its point of application.

- (a) Force (b) Work

71- A set of forces acting on a particle or rigid body is called a _____

- (a) Momentum system (b) Couple system

3- The product of the mass of the object and velocity is called its

- i) velocity (b) momentum (c) acceleration

4- If a particle of mass m is moving with a velocity \vec{v} , then its linear momentum is

- i) $m\vec{a}$ (b) $m^2\vec{a}$ (c) $m^2\vec{v}$

5- Mathematical form of Newton's second law of motion is $\vec{F} =$

- i) $m\vec{a}$ (b) $m^2\vec{a}$ (c) $m^2\vec{v}$

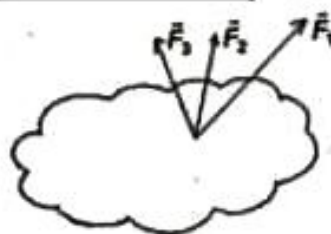
5- The forces passing through a single point are called _____ forces.

- i) parallel (b) concurrent (c) Non-concurrent

7- The forces lying in the same plane are called _____ forces.

- i) Non-coplanar (b) coplanar (c) skew

3- Forces \vec{F}_1 , \vec{F}_2 and \vec{F}_3 are _____ forces.



- i) parallel (b) concurrent (c) Non-concurrent

3- Forces \vec{P} and \vec{Q} have _____ of action.



- i) Same direction (b) Different lines (c) Same lines

3- The action of a given force system on a body _____ if we add to or subtract from the equilibrium.

- i) Is changed (b) Remains unchanged (c) Is changed rapidly

4- The point of application of a force acting on a rigid body _____ be transferred to any other point

(ii) A particle subject to workless constraints is in equilibrium if and only if _____ virtual work is done by the applied forces in any arbitrary infinitesimal displacement consistent with the constraints.

- (a) negative (b) zero (c) positive (d) none of these
- Ⓐ Ⓑ Ⓒ Ⓓ

(iii) A set of particles subject to workless constraints is in equilibrium if and only if _____ virtual work is done by the applied forces in any arbitrary infinitesimal displacement consistent with the constraints.

- (a) negative (b) zero (c) positive (d) none of these
- Ⓐ Ⓑ Ⓒ Ⓓ

(iv) A rigid body or a set of rigid bodies subject to workless constraints is in equilibrium if and only if _____ virtual work is done by the applied forces and applied torques in any arbitrary infinitesimal displacement consistent with the constraints.

- (a) negative (b) zero (c) positive (d) none of these
- Ⓐ Ⓑ Ⓒ Ⓓ

The applied torque means the _____ of an applied couple.

- (a) axis (b) arm (c) moment (d) none of these
- Ⓐ Ⓑ Ⓒ Ⓓ

Short Questions

Answer the following short questions:

- 10- Speed is the magnitude of _____
(a) 50N (b) **5N** (c) 0.5N (d) 0N
- 11- The property of matter that resists changes in its motion is called _____
(a) acceleration (b) force (c) **velocity** (d) energy
- 12- The property of matter that resists changes in its motion is called _____
(a) mass (b) weight (c) **inertia** (d) force
- 13- The branch of science which deals with the behavior of physical bodies when subjected to forces or displacement is called _____
(a) **mechanics** (b) physics (c) mathematics (d) chemistry
- 14- Lamy's Theorem cannot be applied if angle between any two forces is _____
(a) **180 degrees** (b) 100 degrees (c) 70 degrees (d) 40 degrees
- 15- In Lamy's theorem forces are _____ to the sine of the angle between the other two
(a) **proportional** (b) Non proportional
- 16- Let X be the Sum of Horizontal forces and Y be the sum of Vertical Forces using on a particle. If $X=0$ N and $Y=-5$ N then the angle made by the horizontal with +ve x-axis is _____
(a) 0 degrees (b) 90 degrees (c) 180 degrees (d) **270 degrees**
- 17- If the resultant force acts along the line $y=x$, then the resultant makes an angle of _____ degrees with +ve axis
(a) 0 (b) **45** (c) 90 (d) 135
- 18- Law of cosines is applicable on _____
(a) Acute-angled triangle only (b) **Obtuse-angled triangle only** (c) Right-angled only (d) Any triangle
- 19- If a body is moving at $(2i+3j)$ m/s, then $(2i+3j)$ m/s is the _____ of the body.
(a) **velocity** (b) speed (c) acceleration (d) force

1) 0 (b) 90 (c)

5- A body is held in equilibrium by two parallel strings. Tension on

1) 5 Kg (b) 10 kg (c)

5- If a body is hanging in equilibrium by a light inextensible string w

1) 2 kg (b) 5 kg (c)

7- A body is hanging in equilibrium by a light in-extensible string.

ust be _____

1) halved (b) doubled (c)

3- According to Lamy's theorem

1) The three forces must be equal (b)

2) If the three forces acting at a point are in equilibrium, then each force is proportional to the sine of the angle between the other two

3- The branch of mechanics which deals with the bodies at rest is ca

1) dynamics (b) statics (c)

2- If a body is in equilibrium under the action of coplanar force

quilibrium, downward forces need to be

1) halved (b) unchanged (c)

4- If a force of 10 N acts at an angle of 30 degrees with the horizont

1) 5 (b) 8.66 (c)

2- Let X be the Sum of Horizontal forces and Y be the sum of Vert

resultant of the forces act in the _____

1) First quadrant (b) Second quadrant (c)

3- Lamy's Theorem cannot be applied if a body is in state of ve

coplanar forces.

1) True (b)

4- If the mass of a particle is 8 kg, then its weight will be _____ N.

1) 80 (b) 8 (c)

5- Horizontal and vertical components of the force acting on a par
n the particle is _____

1) 7 N (b) 12 N (c)

5- $\vec{OC} = \frac{1}{7}\vec{R}$ then C divides AB in the ratio _____

1) 8:1 (b) 1:6 (c)

7- If two concurrent forces are represented by OA and OB, then th

C:CB=1:1

1) 2 OC (b) OC (c)

- 1) $R=X$ (b) $R=Y$ (c) $R=2X$ (

2- If the resultant force acting on the particle is $(3i+4j)N$, then what additional single must be applied for equilibrium

- 1) $(3i-4j)N$ (b) $(-3i+4j)N$ (c) $(-3i-4j)N$ (

3- Let X be the Sum of Horizontal forces and Y be the sum of Vertical Forces acting on a particle. If $X=4$ and $Y=3$, the angle made by the Resultant with +ve x-axis is _____

- 1) 0 degrees (b) 90 degrees (c) 180 degrees (

4- If two forces p and q act at an angle α , then the angle

- 1) $\tan \theta = \frac{psin \alpha}{q + pcos \alpha}$ (b) $\tan \theta = \frac{psin \alpha}{q - pcos \alpha}$ (c) $\tan \theta = \frac{psin \alpha + q}{pcos \alpha}$ (

5- If two concurrent forces are represented by $\lambda\vec{OA}$ and $\mu\vec{OB}$, their resultant is given by $(\lambda + \mu)\vec{OC}$. If λ is -ve then $OC:CB=\mu:\lambda$. If λ is -ve then _____

- 1) C lies between A and B (b) A lies between C and B (c) B lies between A and C (

6- Law of Sines is applicable on _____

- 1) Acute-angled triangle only (b) Obtuse-angled triangle only (c) Right-angled only (

7- Lamy's Theorem can be applied if a body is in state of vertical equilibrium only under the action of three forces.

- 1) True (b) False (

8- Let X be the Sum of Horizontal forces and Y be the sum of Vertical Forces acting on a particle. If the resultant force acting on the particle is given by

- 1) $R = \sqrt{X^2 + Y^2}$ (b) $R = \sqrt{X^2 - Y^2}$ (c) $R = X - Y$ (

9- If a particle is in equilibrium under the action of coplanar forces, then sum of horizontal forces is

- 1) 0 (b) 1 (c) -1 (

10- For(Lambda,mu) theorem to be satisfied, forces should be _____

- 1) Equal in magnitude (b) parallel (c) Co-planar (

11- If a body doesn't change its position with respect to its surrounding then it is said to be in state of

- 1) rest (b) motion (c) equilibrium (