

Question # 1 of 10 (Start time: 02:32:36 PM, 01 July 2022)

Total Marks: 1

Greatest resultant of forces 3N and 5N is —.

Select the correct option



5N



2N



3N



8N

[Click to Save Answer & Move to Next Question](#)

Question # 9 of 10 (Start time: 02:40:44 PM, 01 July 2022)

Total Marks: 1

Let X be the Sum of Horizontal forces and Y be the sum of Vertical Forces acting on a particle. If X is -ve and Y is +ve , then the Resultant of the forces act in the——

Select the correct option



first quadrant



third quadrant



second quadrant



fourth quadrant

[Go to Save Answer & Move to Next Question](#)

If the resultant force acting on the particle is $(3i+4j)N$, then what additional single must be applied to make the particle in Equilibrium

Select the correct option

- | | |
|-----------------------|-------------|
| ☐ | $(3i-4j)N$ |
| ☐ | $(-3i-4j)N$ |
| ☐ | $(-7i-7j)N$ |
| ☐ | $(-3i+4j)N$ |

[Click to Save Answer & Move to Next Question](#)

If a body is moving at 2m/s, then 2m/s is the of the body.

Select the correct option

- | | |
|-----------------------|--------------|
| ☐ | acceleration |
| ☐ | velocity |
| ☐ | force |
| ☐ | speed |

Lamys theorem applies to ——coplanar concurrent forces.

Select the correct option

- | | |
|-----------------------|-------|
| ☐ | two |
| ☐ | four |
| ☐ | three |
| ☐ | five |

Click to Save Answer & Move to Next Question

Lamys theorem applies if a particle is in ____.

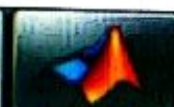
Select the correct option



equilibrium state



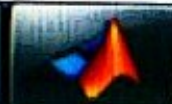
non-equilibrium state



Greatest resultant of forces 3N and 5N is —.

Select the correct option

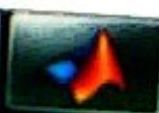
☐	3N
☐	2N
☐	8N
☐	5N



The property of matter that resists changes in its motion is called....

Select the correct option

☐	inertia
☐	weight
☐	force
☐	mass

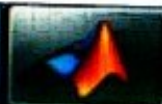


Question # 4 of 10 (Start time: 02:14:13 PM, 01 July 2022)

In Lamy's theorem forces are proportional to the sine of the ———.

Select the correct option

☐	sum the angle between the other two
☐	difference of the angle between the other two
☐	angle between the other two
☐	angle adjacent to it



If a particle is in equilibrium under the action of coplanar Forces then removing a horizontal force makes the particle in

Select the correct option

☐	neither horizontal equilibrium nor vertical equilibrium
☐	vertical equilibrium only
☐	horizontal equilibrium only
☐	Both horizontal and vertical equilibrium



Question # 7 of 10 (Start time: 02:16:27 PM, 01 July 2022)

Let X be the Sum of Horizontal forces and Y be the sum of Vertical Forces acting on a particle then the angle that Resultant force makes with +ve horizontal is given by

Select the correct option

☐

$$\theta = \tan^{-1}\left(\frac{X}{Y}\right)$$

☐

$$\theta = \tan^{-1}\left(\frac{Y}{X}\right)$$

☐

$$\theta = \tan^{-1}(YX)$$

☐

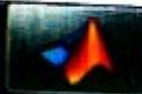
$$\theta = \tan^{-1}(Y + X)$$

MITH304: QUIZ NO. 1
Question # 5 of 10 (Start time: 02:14:53 PM, 01 July 2022)

In Lamy's theorem forces are... to the sine of the angle between the other two.

Select the correct option

☐	proportional
☐	not proportional



Question # 6 of 10 (Start time: 02:15:32 PM, 01 July 2022)

If a body is placed on a horizontal table and the Normal component of the contact force is 100N, then the mass of the body will be ____ kg.

Select the correct option

☐	100
☐	0.1
☐	1
☐	10

Acceleration is a quantity.

Select the correct option

☐	both vector and scalar
☐	scalar
☐	vector
☐	none of the given



Question # 9 of 10 (Start time: 02:17:20 PM, 01 July 2022)

Law of cosines is applicable on_____.

Select the correct option

☐	right-angled triangle only
☐	obtuse-angled triangle only
☐	any triangle
☐	acute-angled triangle only



Question # 1 of 10 (Start time: 02:20:54 PM, 01 July 2022)

If the resultant force acting on the particle is $(3i+4j)N$, then what additional single must be applied to make the particle in Equilibrium

Select the correct option

☐ $(-3i+4j)N$ ☐ $(-3i+4j)N$ ☐ $(3i+4j)N$ ☐ $(-7i-7j)N$ 

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

Select the correct option



$(-3i-4j)$ N



$(-3i+4j)$ N



$(3i-4j)$ N



$(-7i-7j)$ N

The branch of science which deals with the behavior of physical bodies when subjected to forces or displacements is called...

Select the correct option

☐

chemistry

☐

physics

☐

mathematics

☐

mechanics

Question # 3 of 10 (Start time: 02:22:31 PM, 01 July 2022)

Lamy's theorem applies if a particle is in —.

Select the correct option

☐ non-equilibrium state

☒ equilibrium state

Question # 4 of 10 (Start time: 02:22:56 PM, 01 July 2022)

If a particle is in equilibrium under the action of three coplanar concurrent forces, then each force has a magnitude proportional to the — of the angle between the other two.

Select the correct option

☐

cotang

☐

secant

☒

sine

☐

tangent

Greatest Resultant of two forces p and q is possible when angle between the two forces is — degree

Select the correct option

☐	270
☐	90
☐	180
☐	0



Use of cosines is applicable on——

Select the correct option



obtuse-angled triangle only



right-angled triangle only



acute-angled triangle only



any triangle



MT11304 QUIZ NO 1

Quiz Start

Question # 5 of 10 (Start time: 02:24:01 PM, 01 July 2022)

In Lami's theorem forces are proportional to the sine of the ———.

Select the correct option

☐

sum the angle between the other two

☐

difference of the angle between the other two

☐

angle adjacent to it

☐

angle between the other two

Let X be the Sum of Horizontal forces and Y be the sum of Vertical Forces acting on a particle then magnitude of Resultant force acting on the particle if $Y=0$ is given by—

Select the correct option



$R=2X$



$R=2Y$



$R=X$



$R=Y$

Question # 9 of 10 (Start time: 02:27:14 PM, 01 July 2022)

Let X be the Sum of Horizontal forces and Y be the sum of Vertical Forces acting on a particle. If $X=4\text{N}$ and $Y=0\text{N}$ then the angle made by the Resultant with with +ve x-axis is --

Select the correct option

☐ 180 degrees

☐ 0 degrees

☐ 90 degrees

☐ 270 degrees

Question # 9 of 10 (Start time: 02:27:14 PM, 01 July 2022)

Let X be the Sum of Horizontal forces and Y be the sum of Vertical Forces acting on a particle. If $X=4\text{N}$ and $Y=0\text{N}$ then the angle made by the Resultant with +ve x-axis is —

▶ Select the correct option

☐

180 degrees

☐

0 degrees

☐

90 degrees

☐

270 degrees

Question # 10 of 10 (Start time: 02:28:41 PM, 01 July 2022)

The property of matter that resists changes in its motion is called....

Select the correct option

☐	weight
☐	force
☐	inertia
☐	mass



Question # 1 of 10 (Start time: 02:32:54 PM, 01 July 2022)

Total Marks: 1

Three forces $(2i-j)N$, $(4i+3j)N$ and $(-3i+2j)N$ are acting on a body. What is the magnitude of single force that must be applied on the body to make it in complete equilibrium?

Select the correct option

- | | |
|-----------------------|----|
| ☐ | 5N |
| ☐ | 3N |
| ☐ | 2N |
| ☐ | 4N |

[View Question & Answer History](#)

Let X be the Sum of Horizontal forces and Y be the sum of Vertical Forces acting on a particle then the angle that Resultant force makes with +ve horizontal is given by

Select the correct option

 Reload Math Equations

☐

$$\theta = \tan^{-1}\left(\frac{Y}{X}\right)$$

☐

$$\theta = \tan^{-1}\left(\frac{X}{Y}\right)$$

☐

$$\theta = \tan^{-1}(Y + X)$$

☐

$$\theta = \tan^{-1}(YX)$$

[Click to Load Answers & Move to Next Question](#)

Question # 2 of 10 (Start time: 02:33:20 PM, 01 July 2022)

Total Marks: 1

Acceleration is a ____ quantity.

Select the correct option



none of the given



both vector and scalar



vector



scalar

[Click to view Answer & Move to Next Question](#)

Three forces $(2i+3j)N$, $(4i-2j)N$ and $(-5i+4j)N$ are acting on a body. What single force must be applied on the body to make it in complete equilibrium?

Select the correct option

- | | |
|-----------------------|---------|
| ☐ | $i-5j$ |
| ☐ | $-i+5j$ |
| ☐ | $i+5j$ |
| ☐ | $-i-5j$ |

[Go to Save Answer & Move to Next Question](#)

According to Lamy's theorem

Select the correct option

- | | |
|-----------------------|--|
| ☐ | The three forces must be equal |
| ☐ | none of these |
| ☐ | 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 |
| ☐ | The three forces must be at 120° to each other |

[Click to Save Answer & Move to Next Question](#)

Let X be the Sum of Horizontal forces and Y be the sum of Vertical Forces acting on a particle then magnitude of Resultant force acting on the particle is given by

Select the correct option

 Reload Math Equations

- | | |
|-----------------------|------------------------|
| ☐ | $R = \sqrt{X^2 - Y^2}$ |
| ☐ | $R = \sqrt{X^2 + Y^2}$ |
| ☐ | $R = X - Y$ |
| ☐ | $R = X + Y$ |

Click on the correct answer



Question # 9 of 10 (Start time: 02:38:41 PM, 01 July 2022)

Total Marks: 1

If a body of weight 5N is hanging in equilibrium by a light inextensible string then the tension in the string is——

Select the correct option

- | | |
|-----------------------|------|
| ☐ | 0.5N |
| ☐ | 5N |
| ☐ | 0N |
| ☐ | 50N |

[Go to Question](#) [Previous Question](#) [Next Question](#)

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

Select the correct option



motion



rest

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Let X be the Sum of Horizontal forces and Y be the sum of Vertical Forces acting on a particle. If X is -ve and Y is +ve , then the Resultant of the forces act in the——

Select the correct option

- ☐ first quadrant
- ☐ third quadrant
- ☐ fourth quadrant
- ☐ second quadrant

Question 7 of 10 is incorrect



A particle is moving in two-dimensional plane with speed 5m/s. Which of the following is NOT the possible velocity of the particle?

Select the correct option

- | | |
|-----------------------|---------|
| ☐ | $3i+4j$ |
| ☐ | $2i+3j$ |
| ☐ | $5i$ |
| ☐ | $5j$ |

Question 5 of 10 (5 Times) (100% Correct)



Question # 3 of 10 (Start time: 02:34:18 PM, 01 July 2022)

Total Marks: 1

While using Lamy's Theorem which of the following can be angle between any two forces?

Select the correct option



80 degrees



180 degrees



0 degrees



360 degrees

[Click to Save Answer](#) [Click to Next Question](#)

Question # 5 of 10 (Start time: 02:35:35 PM, 01 July 2022)

Total Marks: 1

If the resultant force acts along the line $y=x$, then the resultant makes an angle of — degrees with +ve x-axis.

Select the correct option

☐	45
☐	90
☐	135
☐	0

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If a particle is in equilibrium under the action of coplanar Forces then removing a horizontal force makes the particle in—

Select the correct option



vertical equilibrium only



Both horizontal and vertical equilibrium



neither horizontal equilibrium nor vertical equilibrium



horizontal equilibrium only

Question 4 of 10 (Start time: 02:34:37 PM, 01 July 2022)



Trigonometric ratios are applicable on——.

Select the correct option



obtuse-angled triangle only



any triangle



acute-angled triangle only



right-angled triangle only

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Lamys theorem applies to ——coplanar concurrent forces.

Select the correct option

- | | |
|-----------------------|-------|
| ☐ | four |
| ☐ | five |
| ☐ | three |
| ☐ | two |

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Question # 2 of 5 (Start time: 07:20:46 AM,

The torque depends upon.....

Select the correct option

☐	moment arm only
☐	both force and moment arm
☐	mass
☐	force only

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MTH304 – Statics (QUIZ NO.1)



Question # 1 of 5 (Start time: 07:20:03 AM, 17 February 2022)

A line along which a force act is called-----.

Select the correct option

☐	axis of rotation
☐	a line of acting torque
☐	moment arm
☒	a line of action of force



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Moment of force=-----.

WU MASTER

Select the correct option

☐	$F - d$, where F is force and d is moment arm
☐	F/d , where F is force and d is moment arm
☐	$F \cdot d$, where F is force and d is moment arm
☐	$F + d$, where F is force and d is moment arm



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