

YOUTUBE CHANNEL: S KHAN ACADEMY

MTH622 QUIZ#4 FILE

SOLVED BY SANAULLAH KHAN

CONTACT NO:03066793776

Subject Enrolment

1. Online classes are available (Mathematics)
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 - Assignment's
 - Quizzes
 - GDB's
3. Solved quiz files
4. Past papers
5. Any info about virtual university of Pakistan

Final project (MTH620)

Email:

Sanaullahkhan03066793@gmail.com

Facebook:

Sanaullah Khan

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SANAULLAH KHAN
MSc. MATHEMATICS
FOR QUIZ CONTECT
(03066793776)

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Quiz List Quiz

quiz.vu.edu.pk/QuizQuestion.aspx?ver=5731fb2c-7746-47f1-bc0b-2fa00258adc8

MTH622:Quiz no.4

Quiz Start Time: 09:00 PM, 10 March 2022

Question # 1 of 5 (Start time: 09:00:50 PM, 10 March 2022) Total Marks: 1

The moment of inertia of a rigid body about a given axis is equal to the same about a parallel axis through the centroid plus the moment of inertia due to the total mass placed at the centroid.

Select the correct option

☐ false

☒ true

Click to Save Answer & Move to Next Question

Quiz List Quiz

quiz.vu.edu.pk/QuizQuestion.aspx?ver=766ef8b3-2ec9-4029-9644-1d6df682bcde

MTH622:Quiz no.4

Quiz Start Time: 09:00 PM, 10 March 2022

Question # 2 of 5 (Start time: 09:01:24 PM, 10 March 2022) Total Marks: 1

If a time dependent vector function $\vec{A}$ is represented by $\vec{A}_f$ and $\vec{A}_r$ in fixed and rotating coordinate systems, then $\left(\frac{d\vec{A}}{dt}\right)_f = \left(\frac{d\vec{A}}{dt}\right)_r + \omega \times \vec{A}_r$, where it is not necessary that the origins of the two systems coincide initially.

Select the correct option

☒ false

☐ true

Click to Save Answer & Move to Next Question

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Quiz List Quiz

quiz.vu.edu.pk/QuizQuestion.aspx?ver=40024d65-d085-46e1-9967-05813605afaf

MTH622:Quiz no.3

Quiz Start Time: 09:00 PM, 10 March 2022

Question # 3 of 5 (Start time: 09:01:55 PM, 10 March 2022) Total Marks: 1

Point, where the total volume of the body is assumed to be concentrated is-----.

Select the correct option

☐ centroid of mass

☐ center of area

☒ centroid of volume

☐ all of the mentioned

Reload Math Equations

Click to Save Answer & Move to Next Question

Quiz List Quiz

quiz.vu.edu.pk/QuizQuestion.aspx?ver=9c1a21d2-9ef2-4452-a05b-27eb210b75ff

MTH622:Quiz no.4

Quiz Start Time: 09:00 PM, 10 March 2022

Question # 4 of 5 (Start time: 09:02:50 PM, 10 March 2022) Total Marks: 1

The principal moment of inertia matrix is a

Select the correct option

☐ identity matrix

☒ diagonal matrix

Click to Save Answer & Move to Next Question

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quiz.vu.edu.pk/QuizQuestion.aspx?ver=a69ed29e-1143-4490-84bb-183407b4c66e

MTH622:Quiz no.4

Quiz Start Time: 09:00 PM, 10 March 2022

Question # 5 of 5 (Start time: 09:03:38 PM, 10 March 2022) Total Marks: 1

If the center of mass is at origin then the coordinate axes (xyz axes) and the principal axes of the rigid body are.....

Select the correct option

perpendicular

coincident

Reload Math Equations

Click to Save Answer & Move to Next Question

Quiz List Quiz

quiz.vu.edu.pk/QuizQuestion.aspx?ver=a69ed29e-1143-4490-84bb-183407b4c66e

MC210204176: MUHAMMAD AMMAR SHAKIR

MTH622:Quiz no.4

Quiz Start Time: 09:00 PM, 10 March 2022

Question # 5 of 5 (Start time: 09:03:38 PM, 10 March 2022) Total Marks: 1

If the center of mass is at origin then the coordinate axes (xyz axes) and the principal axes of the rigid body are.....

Select the correct option

perpendicular

coincident

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Saving...

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MT1622-Quiz no.4

Recording [00:01:07]

Perpendicular axis theorem can be applied for which of the following bodies?

Select the correct option

☐ Cylinder of radius R and height h

☐ A cube of side 'a'

☐ Disc of radius R and thickness t

☒ Ring having radius R & negligible cross section

Reload Math Equations

Click to Save Answer & Move to Next Question

9:16 PM 3/10/2022

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MT1622-Quiz no.4

Recording [00:01:46]

Question # 2 of 5 (Start time: 09:16:39 PM, 10 March 2022) Total Marks: 1

Given that the moment of inertia of the disc about a line passing through the center and perpendicular to the plane of disc is $\frac{1}{2}Mr^2$, then the moment of inertia of the disc about any diameter is

Select the correct option

☒ $\frac{1}{4}Mr^2$

☐ $\frac{1}{2}Mr^2$

Reload Math Equations

Click to Save Answer & Move to Next Question

9:17 PM 3/10/2022

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MTH622: Quiz no.4

1919x869 Recording [00:02:06] Quiz Start Time: 09:15 PM, 10 March 2022

Question # 3 of 5 (Start time: 09:17:14 PM, 10 March 2022) Total Marks: 1

Three particles of masses m , $2m$ and $3m$ are held in a rigid light framework at points $(0, 1, 1)$, $(1, 0, 1)$ and $(1, 1, 0)$, respectively. Find I_{yy}

Select the correct option

☐ 7m

☒ 8m

Reload Math Equations

Click to Save Answer & Move to Next Question

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quiz.vu.edu.pk/QuizQuestion.aspx?ver=f10364f7-9380-48df-b201-d3a874367ed1

MTH622: Quiz no.4

1919x869 Recording [00:02:43] Quiz Start Time: 09:15 PM, 10 March 2022

Three mutually orthogonal eigenvectors for a 3×3 symmetric matrix exist if

Select the correct option

☐ the eigenvalues are only repeated

☐ the eigenvalues are only distinct

☒ the eigenvalues are either distinct or repeated

☐ the eigenvalues are imaginary

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MTH622-Quiz no 4 1919x869 Recording [00:03:19] Quiz Start Time: 09:15 PM, 10 March 2022

Question # 5 of 5 (Start time: 09:18:17 PM, 10 March 2022) Total Marks: 1

Three particles of masses m , $2m$ and $3m$ are held in a rigid light framework at points $(0, 1, 1)$, $(1, 0, 1)$ and $(1, 1, 0)$, respectively. Find I_{xx}

Select the correct option

8m

7m

Reload Math Equations

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MTH622-Quiz no 4 1919x869 Recording [00:03:19] Quiz Start Time: 09:30 PM, 10 March 2022

Question # 1 of 5 (Start time: 09:30:12 PM, 10 March 2022) Total Marks: 1

The axis about which moment of area is taken is known as -----.

Select the correct option

axis of area

axis of moment

axis of reference

axis of rotation

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MC210204521: SANA TOUHEED

MTH622:Quiz no.4

Time Left 87 sec(s)

Quiz Start Time: 09:30 PM, 10 March 2022

Question # 2 of 5 (Start time: 09:30:53 PM, 10 March 2022) Total Marks: 1

Three particles of masses m , $2m$ and $3m$ are held in a rigid light framework at points $(0, 1, 1)$, $(1, 0, 1)$ and $(1, 1, 0)$, respectively. Find I_{yy}

Select the correct option

8m

7m

Reload Math Equations

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← → ↻ quiz.vu.edu.pk/QuizQuestion.aspx?ver=79bac56b-d368-471c-8ee5-5306b2058c3c

MTH622:Quiz no.4

Time Left 87 sec(s)

Quiz Start Time: 09:30 PM, 10 March 2022

Question # 3 of 5 (Start time: 09:31:08 PM, 10 March 2022) Total Marks: 1

The moment of inertia of a plane rigid body about an axis perpendicular to the body is equal to the difference of the moment of inertia about two mutually perpendicular axis lying in the plane of the body and meeting at the common point with the given axis.

Select the correct option

false

true

Click to Save Answer & Move to Next Question

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MTH622:Quiz no.4 Quiz Start Time: 09:30 PM, 10 March 2022

Question # 4 of 5 (Start time: 09:31:25 PM, 10 March 2022) Total Marks: 1

If a time dependent vector function $\vec{A}$ is represented by $\vec{A}_f$ and $\vec{A}_r$ in fixed and rotating coordinate systems, then $\left(\frac{d\vec{A}}{dt}\right)_f = \left(\frac{d\vec{A}}{dt}\right)_r + \omega \times \vec{A}_r$, where it is not necessary that the origins of the two systems coincide initially.

Select the correct option

☐ true

☒ false

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MTH622:Quiz no.4 Quiz Start Time: 09:30 PM, 10 March 2022

Question # 5 of 5 (Start time: 09:31:53 PM, 10 March 2022) Total Marks: 1

Three particles of masses m , $2m$ and $3m$ are held in a rigid light framework at points $(0, 1, 1)$, $(1, 0, 1)$ and $(1, 1, 0)$, respectively. Find I_{zz}

Select the correct option

☒ 9m

☐ 8m

Reload Math Equations

Click to Save Answer & Move to Next Question

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