Not yet answered

Marked out of 1.00

Flag question

Time left 0:35:59

A body of mass m moves along the positive x-axis, it starts at velocity vo at t = 0 and it is the origin initially. It is acted by the force such that F = -kv. Find the velocity of body as a function of time

- a. none of the above
- b. v0 exp (-kt/m)
- c. v0 exp (-mt/k)
- d. v0 exp (-t)

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Time left 0:36:07

Question 16

Not yet answered

Marked out of 1.00

Flag question

A non-holonomic constrain may be expressed in the form of

- a. Equality
- b. Inequality
- c. None of these
- d. Vector

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Time left 0:36:16

A positive and a negative charge are initially 50 mm apart. When they are moved close together so that they are now only 10 mm apart, the force between them will be

- a. 5 times greater than before
- b. 5 times smaller than before
- c. 25 times larger than before
- d. 10 times greater than before

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Not yet answered

Marked out of 1.00

Flag question

Time left 0:36:26

A body of mass m moves along the positive x-axis, it starts at velocity vo at t = 0 and it is the origin initially. It is acted by the force such that F = -kv. Find the time in which it will come to rest

- a. $t = kt/m$
- b. none of the above
- c. $t = mt/k$
- d. $t \rightarrow \infty$

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Time left 0:36:36

Question 13

Not yet answered

Marked out of 1.00

Flag question

.....at a point is equal to the negative potential gradient at that point.

- a. Magnetic flux density
- b. Electric flux
- c. Electric intensity
- d. Magnetic flux

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← END OF SECOND SEMESTER EXAMINATION

Not yet answered

Time left 0:36:53

Marked out of 1.00

Flag question

A field line and an equipotential surface are

- a. always at 90°
- b. inclined at any angle 0
- c. none of the above
- d. always parallel

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← END OF SECOND SEMESTER EXAMINATION

Time left 0:37:17

An uncharged conductor is placed near a charged conductor, then

- a. the uncharged conductor gets charged by conduction
- b. the uncharged conductor gets charged by induction and then attracted towards the charging body
- c. it remains as such
- d. the uncharged conductor is attracted first and then charged by induction

Time left 0:37:08

Question 11

Not yet answered

Marked out of 1.00

Flag question

Electric field intensity is a quantity

- a. scalar
- b. vector
- c. both (a) and (b)
- d. none of the above

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← END OF SECOND SEMESTER

Time left 0:37:31

Question 9

Not yet answered

Marked out of 1.00

Flag question

Electric intensity at any point in an electric field is equal to the..... at that point.

- a. potential gradient
- b. none of the above
- c. electric flux
- d. magnetic flux density

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Time left 0:37:39

Question 8

Not yet answered

Marked out of 1.00

Flag question

For an aluminium the modulus of rigidity is 2.1×1010 N/m2 and density is 2.7×103 kg/m3. Find the speed of transverse waves in the medium.

- a. 27.9×103 m/s
- b. 2.79×103 m/s
- c. 24.1×103 m/s
- d. 25.14×103 m/s

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A truck and car are moving on a plane road with same kinetic Energy. They are brought to rest by application of brakes which provide equal retarding forces. Which one of the following statements is true?

a. Distance traveled by truck is shorter than car before coming to rest

b. Distance traveled depends on individual velocity of both the vehicles

c. Distance traveled by car is shorter than truck before coming to rest

d. Both will travel same distance before coming to rest

Time left 0:38:12

Question 6

Not yet answered

Marked out of 1.00

Flag question

Electric displacement is a_____quantity.

- a. scalar
- b. vector
- c. both of the above
- d. none of the above

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← END OF SECOND SEMESTER

Marked out of 1.00

Flag question

Time left 0:38:43

A body of mass m moves along the positive x-axis, it starts at velocity vo at t = 0 and it is the origin initially. It is acted by the force such that F = -kv. Find the value of x at which its velocity become zero

- a. mv0/k
- b. m/kv0
- c. mv0/k2
- d. none of the above

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Question 5

Time left 0:38:25

Not yet answered

Marked out of 1.00

Flag question

A lightly damped oscillator with a frequency v is set in motion by a harmonic driving force of frequency v'. When v' is lesser than v, then the response of the oscillator is controlled by

---

- a. Inertia of the mass
- b. Spring constant
- c. Damping coefficient
- d. Oscillator frequency

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Question 2

Not yet answered

Marked out of 1.00

Flag question

A wave transmits momentum. Can't it transfer angular momentum?

- a. Yes
- b. No

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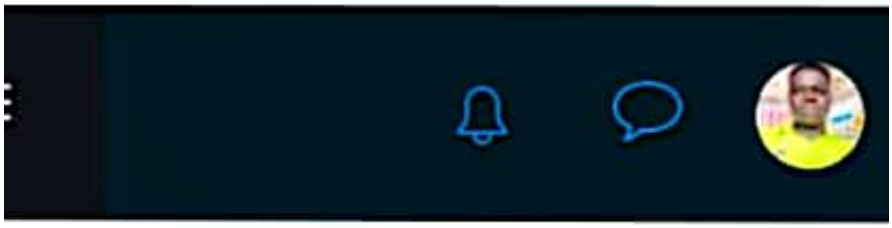

Time left 0:38:58

Question 3

Not yet answered

Marked out of 1.00

Flag question

A pendulum watch can be used in an artificial satellite.

- a. False
- b. True

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Time left 0:39:44

Question 1

Not yet answered

Marked out of 1.00

Flag question

Every simple harmonic motion is periodic motion, but every periodic motion need not be simple harmonic motion.

- a. False
- b. True

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Flag question

Time left 0:35:19

A body of mass m moves along the positive x-axis, it starts at velocity vo at t = 0 and it is the origin initially. It is acted by the force such that F = -kvFind the velocity as a function of distance

- a. v0 - kx/m
- b. v0 + kx/m
- c. v0 - x/m
- d. none of the above

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Finish attempt ...

Not yet answered

Time left 0:35:33

Marked out of 1.00

Flag question

A particle is executing simple harmonic motion at midpoint of mean position and extremely. What is the potential energy in terms of total energy (E)?

- a. E/2
- b. E/8
- c. E/4
- d. E/16

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Time left 0:35:43

A block A of m
released from top of smooth inclined plane and it slides down the plane. Another block of mass m2 such that m2 > m1 is dropped from the same point and falls vertically downwards. Which one of the following statements will be true if the friction offered by air is negligible?

- a. Both blocks will reach ground at same time
- b. Both blocks will reach ground with the same speed
- c. Block A reaches ground before block B
- d. speed of both the blocks when they reach ground will depend on their masses