



	Internal Assessment Test - 1	Academic Year: 2019 - 20
ACA- R-17		Semest-1
Date: 15.06.2019		Date Time:
Class: F.Y.Bsc		Max. Marks: 20 marks
Sub: Mechanics & Properties of matter		

.Q.1. State whether the following statement is true or false. (02)

1). Newton's second law is known as law of inertia

Ans:

2. When an object is at rest or constant velocity in inertial frame of reference, then sum of all forces acting on it must be zero.

Ans:

3. Gravitational force is non-conservative.

Ans:

4. The motion of water in high fall is an example of turbulent flow.

Ans:

5. With rise in temperature, surface tension increases.

Ans:



Q.2. Choose the correct alternative for the following Questions. (05)

1. Swimming is possible on account of

- a) First law of motion
- b) Second law of motion
- c) Third law of motion
- d) Newton's law of gravitation.

2. Which of the following pair of physical quantity has same dimension? -

- a) Work and energy
- b) Force and Work
- c) Work and Power
- d) none of them.

3. What is unit of energy in SI unit?

- a) Joule
- b) Erg
- c) Watt
- d) Newton

4. The equation of continuity for a liquid may be written as

- a) $A_1 V_1 = A_2 V_2$
- b) $A_1 P_1 = A_2 P_2$
- c) $P_1 V_1 = P_2 V_2$
- d) $\beta_1 C_1 = \beta_2 C_2$

5. Surface tension depends on

- a) Contamination of liquid surface
- b) Presence of impurity in liquid
- c) Temperature
- d) All of these



Q.3. Attempt all of the following. (05)

1. Define angle of contact.

2. Define viscosity.

3. What do you mean by streamline flow?

4. Define kinetic energy of a body. Give its SI unit.

5. State Newton's second law of motion.



Q.4. Attempt all of the following.

(05)

1. What is surface tension? And give its unit.

2. State Bernoulli's principle.

3. State work – Energy Theorem.

4. State law of conservation of energy.

5. Can action and reaction forces cancel each other?



		Academic Year: 2019 - 20
ACA- R-17	Internal Assessment Test - 1	Semest-1
Date: 15.06.2019		Date :16/10/2019 Time:8:30 to 9:30
Class: F.Y.Bsc		Max. Marks: 10 marks
Sub: Mechanics & Properties of matter		

Q.1. State whether the following statement is true or false. (02)

- 1). Newton's second law is known as law of inertia
2. When an object is at rest or constant velocity in inertial frame of reference, then sum of all forces acting on it must be zero.

Q.2. Choose the correct alternative for the following Questions. (02)

1. What is unit of energy in SI unit?

- a) Joule b) Erg c) Watt d) Newton

2. The equation of continuity for a liquid may be written as

- a) $A_1 V_1 = A_2 V_2$ b) $A_1 P_1 = A_2 P_2$ c) $P_1 V_1 = P_2 V_2$ d) $\beta_1 C_1 = \beta_2 C_2$

Q.3. Write answers in one or two sentence. (03)

1. Define angle of contact.
2. Define viscosity.
3. What do you mean by streamline flow?

. Q.4 Attempt all of the following. (03)

- 1 surface tension
2. Conservative force.
3. Elasticity



ACA- R-17	Internal Assessment Test - 1	Academic Year: 2019 - 20
Date: 15.06.2019		Semest-II
Class: F.Y.Bsc		Date : 4/3/2020 Time: 8 to8:45
Sub: Heat & Thermodynamics		Max. Marks: 10 marks

Q.1. State weather the following statement is true or false. (02)

1). Internal energy of thermodynamic system is not path function but it is point function

Ans _

2. If the door of a refrigerator is kept open in the hall, the temperature of the hall decreases

Ans _

Q.2. Choose the correct alternative for the following Questions. (02)

1. A heat engine is a device which converts heat energy into

a) Mechanical energy

b) Electrically energy

c) Sound energy

d) Chemical energy

2. When water vapour condenses into water, its entropy

a) Increases

b) Decreases

c) Remains unchanged

d) None of these

Q.3. Write answers in one or two sentence. (03)

1. State zeroth law of thermodynamics.

Ans:



2. What is the effect of pressure on the melting point of the solid?

Ans:

3. State the principle of air conditioning?

Ans:

. Q.4 Attempt all of the following.

(03)

1 Isothermal Processes

Ans:

2. Entropy

Ans:

3. Heat Engine.

Ans: