

GREENLAWNS HIGH SCHOOL
FIRST SEMESTER EXAMINATION

15-9-2022

SUBJECT : PHYSICS

CALSS : VIII

TIME : 1 hour 30 min

MARKS : 60

Q.1 Fill in the blanks :-

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- (a) The gas on being cooled directly change into solid this process is called _____.
- (b) Trust on unit area of the Earth surface due to the column of the air is called _____ pressure.
- (c) _____ is the capacity of doing work.
- (d) The rate of doing work by the body is known as _____.
- (e) When heated a metal rulers length changes from 15 CM to 16.5 cm the ruler has undergone _____ expansion.
- (f) In solid molecules only _____ about their mean position so they have very little kinetic energy.

Q.2 Write True or False and correct the False statement :-

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- (a) Gases have only the superficial expansion.
- (b) Presence of humidity increases the rate of evaporation.
- (c) Angle of incidence and the angle of reflection lies in a same plane.
- (d) The photoelectric cell converts light energy into electrical energy.
- (e) Ink get field into a fountain pen due to osmotic pressure.

(f) A force is expressed by stating both its magnitude and direction.

Q.3 Distinguish between (two points)

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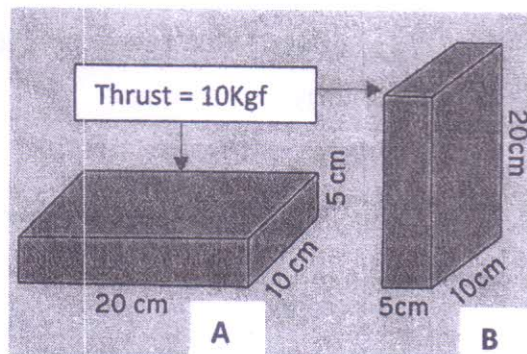
- (a) Energy and Power
- (b) Potential energy and Kinetic energy
- (c) Pressure and Moment of force.

Q.4 Identify the energy conversion in the given examples :-

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- (a) Person speaking using a microphone.
- (b) Burning of logs of wood in camp fire.
- (c) Solar power bike standing on open ground.
- (d) Bullet in a gun hit by a fire pin of gun.
- e) Rotation of armature in a generator.
- (f) Bursting of sparklers.
- (g) Hydroelectric power plant.

Q.5 Analyse the figure and answer the questions



- (a) Thrust in both the cases are equal explain why ? 2
- (b) Why pressure exerted by a brick in position A is less than in position B. 1
- (c) Brick in position A or position B will sink faster. 1
- (d) Write the formula to calculate area when thrust and pressure are known 1

- (e) Unit of pressure for the given figure. 1
- (f) Write 2 factors affecting the pressure on given surface. 2

Q.6



- (a) Draw the lateral inversion of letters in F . 2
- (b) Image distance from mirror is _____ the object distance from the mirror.
[< , = , >] 1
- (c) How glass is converted into a plane mirror? 2
- (d) Why image produced by a plane mirror cannot be taken on a screen. 1

Q.7 Solve the following : 8

- (a) A bird cage of mass 9.5 kg suspended at a third floor of the building height of each floor is 10 m calculate the energy possess by the cage. ($g = 10 \text{ N}$)
- (b) Calculate the power required to do a work of 765 joule for 1.5 minutes.
- (c) Toy car having a mass of 350 gram was moving with a velocity of 8 m/s. Find the k.E. possessed by the car.
- (d) The dimensions of a pillar of a building weighing 450 Kgf are 2.5 m x 1.5 m. Find the pressure exerted on the ground by 4 identical pillars of the building.

Q.8 Give scientific reasons : 8

- (a) No work is done in case of pushing a wall.
- (b) When a hot liquid is poured into a thick glass tumbler it cracks.
- (c) School bags have a broad straps.

(d) In summer water gets cooled in earthen pot.

Q.9 Label the diagram of showing sublimation and deposition :-

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