

LAHORE BOARD

GRADE 9

PHYSICS

2016 GROUP 1

MCQ'S

Section A-(MCQs)

i) Water freezes

at:

(Mark 1)

- A. 0°F
- B. 32°F
- C. -273 K
- D. 0 K

Answer:

- B. 32°F

ii) Land breeze blows from

(Mark 1)

-
- A. Sea to land during night
 - B. Sea to land during the day
 - C. Land to sea during night
 - D. Land to sea during the day

Answer:

- C. Land to sea during night

iii) In which of the following state molecules do not leave their positions?

(Mark 1)

- A. Solid
- B. Liquid
- C. Gas
- D. Plasma

Answer:

- A. Solid

iv) Measuring cylinder is used to measure

(Mark 1)

- A. Mass
- B. Area
- C. Volume
- D. Level of the liquid

Answer:

- C. Volume

v) Inertia depends

on:

(Mar

k 1)

- A. Force
- B. Net force
- C. Mass
- D. Velocity

Answer:

- C. Mass

vi) Gravitational force of the Earth vanishes

at: (Mark 1)

- A. 6400 km
- B. Infinity
- C. 42300 km
- D. 1000 km

Answer:

- B. Infinity

vii) Work will be zero, when the angle between force and distance

is:

(Mark 1)

- A. 45°
- B. 60°
- C. 90°
- D. 180°

Answer:

- C. 90°

viii) By increasing the width of a wall two times its thermal conductivity

will:

(Mark 1)

- A. Become twice
- B. Remain same
- C. Become half
- D. Become one fourth

Answer:

- C. Become half

ix) Amount of a substance in terms of numbers is measured in: (Mark 1)

- A. Gram
- B. Kilogram
- C. Volume
- D. Mole

Answer:

- D. Mole

x) The value of g on moon's surface is 1.6 ms^{-2} . What will be the weight of a 100 kg body on the surface of the moon? (Mark 1)

- A. 100 N
- B. 160 N
- C. 1000 N
- D. 1600 N

Answer:

- B. 160 N

xi) Number of rectangular components of a vector are: (Mark 1)

- A. 1
- B. 2
- C. 3
- D. 4

Answer:

- B. 2

xii) Which of the following is a vector quantity? (Mark 1)

- A. Speed
- B. Distance
- C. Displacement
- D. Power

Answer:

- C. Displacement

Q.2 i) Define Plasma Physics and Nuclear Physics. (Marks 2)

Q.2 ii) What role SI units have played in the development of Science?

(Marks 2)

Q.2 iii) How many divisions are there on Vernier scale? (Marks 2)

Q.2 iv) Convert 20 ms^{-1} speed in kmh^{-1} . (Marks 2)

**Q.2 v) How are vector quantities important to use in our daily life?
(Marks 2)**

Q.2 vi) Define uniform acceleration and give its any example. (Marks 2)

Q.2 vii) Define Newton's first law of motion. (Marks 2)

Q.2 viii) Define centripetal force. Write its equation. (Marks 2)

Q.3 i) Define centre of gravity. (Marks 2)

Q.3 ii) What is meant by couple? (Marks 2)

**Q.3 iii) Define second condition for equilibrium and write its formula.
(Marks 2)**

Q.3 iv) What is meant by moment of arm? (Marks 2)

Q.3 v) What is orbital speed of a low orbiting satellite? (Marks 2)

Q.3 vi) What is meant by the force of gravitation? (Marks 2)

Q.3 vii) Define the unit of power "Watt". (Marks 2)

**Q.3 viii) Differentiate between chemical and mechanical energy.
(Marks 2)**

Q.4 i) Define pressure and write its SI unit. (Marks 2)

Q.4 ii) State the characteristics of kinetic molecular model of matter. (Marks 2)

Q.4 iii) Define stress. (Marks 2)

Q.4 iv) What is meant by latent heat of fusion? (Marks 2)

Q.4 v) Write the difference between heat and temperature. (Marks 2)

Q.4 vi) Write any two applications of thermal expansion. (Marks 2)

Q.4 vii) Define convection. (Marks 2)

Q.4 viii) What measures do you suggest to conserve energy in houses? (Marks 2)

Q.5 a) Prove with the help of graph. $S = v_i t + \frac{1}{2} a t^2$ (Marks 4)

Q.5 b) A body of mass 5kg is moving with a velocity of 10 ms^{-1} . Find the force required to stop it in 2 seconds. (Marks 5)

Q.6 a) Find the centre of gravity of an irregular shaped thin lamina with the help of an experiment. (Marks 4)

Q.6 b) A man M_1 takes 80 S in lifting a load of 200 N through a height of 10m. While another man M_2 takes 10 S in doing the same job. Find the power of each. (Marks 5)

Q.7 a) What is meant by evaporation? On what factors the evaporation of liquid depends? (Marks 4)

Q.7 b) The weight of a metal spoon in air is 0.48 N. its weight in water is 0.42 N. Find its density.

(Marks 5)

LAHORE BOARD

GRADE 9

PHYSICS

2016 GROUP 2

MCQ'S

i) A measuring cylinder is used to measure (Mark 1)

- A. Mass
- B. Area
- C. Volume
- D. Level of liquid

Answer:

- C. Volume

ii) Which one of the following units is not a derived unit? (Mark 1)

- A. Pascal
- B. Kilogram
- C. Newton
- D. Watt

Answer:

- B. Kilogram

iii) Which of the following is a vector quantity? (Mark 1)

- A. Speed
- B. Distance
- C. Displacement
- D. Power

Answer:

- C. Displacement

iv) Which of the following is the unit of momentum? (Mark 1)

- A. Nm
- B. kgms⁻¹
- C. Ns
- D. Ns⁻¹

Answer:

- B. kgms⁻¹

v) The number of perpendicular components of a force are: (Mark 1)

- A. 1
- B. 2
- C. 3
- D. 4

Answer:

B. 2

vi) Earth gravitational force of attraction vanishes at (Mark 1)

- A. 6400 km
- B. Infinity
- C. 42300 km
- D. 1000 km

Answer:

B. Infinity

vii) The value of g on moon's surface is 1.6 ms^{-2} . What will be the weight of a 100 kg body on the surface of the moon? (Mark 1)

- A. 100 N
- B. 1600 N
- C. 1000 N
- D. 160 N

Answer:

D. 160 N

viii) The work done will be zero when the angle between the force and the distance is

(Mark 1)

- A. 45°
- B. 60°
- C. 90°
- D. 180°

Answer:

C. 90°

ix) In which of the following state molecules do not leave their position? (Mark 1)

(Mark 1)

- A. Solid
- B. Liquid
- C. Gas
- D. Plasma

Answer:

A. Solid

x) Normal human body temperature

is: (Mark 1)

A. 15°C

B. 37°C

C. 37°F

D. 98.6°C

Answer:

B. 37°C

xi) In solids heat is transferred

by: (Mark 1)

A. Radiation

B. Conduction

C. Convection

D. Absorption

Answer:

B. Conduction

xii) In gases heat is mainly transferred

by: (Mark 1)

A. Molecular collision

B. Conduction

C. Convection

D. Radiation

Answer:

C. Convection

Q.2 i) What is meant by derived quantities? write example. (Marks 2)

Q.2 ii) Write down the formula to calculate the least count of screw gauge. (Marks 2)

Q.2 iii) Why is the use of zero error necessary in a measuring instrument? (Marks 2)

Q.2 iv) Define acceleration and write its unit. (Marks 2)

Q.2 v) Differentiate between distance and displacement. (Marks 2)

Q.2 vi) What is meant by uniform velocity? (Marks 2)

Q.2 vii) State Newton's first law of motion. (Marks 2)

Q.2 viii) Describe braking and skidding. (Marks 2)

Q.3 i) State the principle of moments. (Marks 2)

Q.3 ii) Define couple. (Marks 2)

Q.3 iii) What is difference between stable and unstable equilibrium? (Marks 2)

Q.3 iv) What is gravitational constant? Write its value. (Marks 2)

Q.3 v) How does the value of "g" vary with altitude? (Marks 2)

Q.3 vi) What are artificial satellites? (Marks 2)

Q.3 vii) Define power and write its formula. (Marks 2)

Q.3 viii) What is work done in lifting brick of mass 2 kg through a height of 5 m above the ground? (Marks 2)

Q.4 i) Write two important features of kinetic molecular model of matter. (Marks 2)

Q.4 ii) The mass of 200 cm³ of stone is 500g. Find its density? (Marks 2)

Q.4 iii) Define pressure. (Marks 2)

Q.4 iv) Write the definition of specific heat. (Marks 2)

Q.4 v) Define evaporation. (Marks 2)

Q.4 vi) What is thermos flask? (Marks 2)

Q.4 vii) Write two consequences of radiation? (Marks 2)

Q.4 viii) Describe the effect of length on thermal conductivity. (Marks 2)

Q.5 a) Describe the methods to reduce friction. (Marks 4)

Q.5 b) A train starts from rest with an acceleration of 0.5 ms⁻². Find its speed in km h⁻¹, when it has moved through 100 m. (Marks 5)

Q.6 a) Explain the difference between centre of mass and centre of gravity. (Marks 4)

Q.6 b) A motor boat moves at a steady speed of 4ms⁻¹. Water resistance acting on it is 4000 N. calculate the power of its engine. (Marks 5)

Q.7 a) Explain pressure in liquids and derive its formula ($p = \rho gh$).

Q.7 b) A container has 2.5 litre of water at 20°C. How much heat is required to boil the water? (Marks 5)