BOARD OF INTERMEDIATE AND SECONDARY EDUCATION HYDERABAD
S.S.C PART (I) ANNUAL EXAMINATION – _____

Max. mark 75 PHYSICS - I (MODEL PAPER) Time: 3 hours

SECTION – A

MCQs Marks(12)

Choose the correct answer for each from the given options.

(i). The Evaporation can occur at

(a) Freezing Point (b) Melting Point (c) Boiling Point (d) All Temperature

(ii). Back and Forth Motion is called

(a) Circular Motion (b) Linear Motion (c) Vibratory motion (d) N.O.T

(iii).The branch of Physics which is related with the study of motion of objects is called

(a) Mechanics (b) Thermodynamics (c) Electricity (d) N.O.T

(iv). A force of 15 N makes an angle of 60° with horizontal. Its vertical component will be:

(a) 15N (b) 10N (c) 13N (d) 7N

(v). The velocity of a satellite is _____ of the mass.

(a) equal (b) dependent (c) independent (d) N.O.T

(vi). which of the following material is more elastic?

(a) Rubber (b) Steel (c) Glass (d) Wood

(vii). Gravitational field is always _____.

(a) Repulsive (b) Attractive (c) Both (d) N.O.T

(viii). your weight as measured on Earth will be …… on the Moon.

(a) Increased (b) decreased (c) remains same (d) N.O.T

(ix). A burning candle is an example of _____state of matter.

(a) Gas (b) Liquid (c) Solid (d) all three

(x). during which process a gas becomes a liquid _____.

(a) Melting (b) Freezing (c) Condensing (d) Boiling

(xi). If "β"is the co-efficient of volume expansion and "α"is the co-efficient of linear expansion

(a) $\beta=2\alpha$ (b) $\beta=3\alpha$ (c) $\alpha=3\beta$ (d) N.O.T

(xii). What is the kinetic energy of a 50 gm. bullet moving at a speed of 500 $msec^{-1}$ _____.

(a) 6250 joules (b) 1250 joules (c) 2500 joules (d) N.O.T

SECTION – B

(Short Answer Questions): Marks(24)

Note: Answer the following question. Each question carries 03 marks.

Q1.Define the term Physics and also enlist any five name branches of Physics.

Or

Define the forces acting on an object in circular motion.

Q2.How momentum and force related to each other?

Or

Why do you pull your hands while catching a fast moving ball?

Q3.Two unlike parallel forces 10 N Each acting along same line. Find their resultant.

Or

Describe the motion due to gravity Or Motion under gravity or free fall motion**.**

Q4.Difference between “G” and “g”.

Or

Which force causes the Moon to move in Orbit around the Earth?

Q5.If you go on diet and lose weight, you will also lose mass? Explain.

Q6.Calculate the mass of earth by Newton’s law of Gravitation?

Q7.Derive the equation for the Gravitational Potential energy (P.E = mgh).

Q8.Define evaporation. On what factor speed of evaporation depend? Explain

SECTION – C

(Long Answer Questions) Marks(24)

Note: Answer the following question. Each question carries 06 marks.

Q10. Derive the Second Equation of Motion.

Or

State and explain newton’s law of universal gravitation?

Q11. Explain the Law of conservation of Momentum?

Or

A body of mass 10 kg is moving with velocity of 10 m/s. A force acts for 5 seconds to reduce its velocity to 2 m/s. Find the momentum of body before and after application of the force on it.

Q11. State and Explain second law of motion.

Q12. Determination of rectangular components of a vector?

Alternative to Practical (ATP)Compulsory Marks(15).

Q13. Activity: To measure the volume of a solid cylinder by measuring length and diameter of a solid cylinder with a vernier calipers.

Or

Activity: To measure the thickness of a metal strip or a wire by using a micrometer screw gauge.