K C S

Class Name X **Marks: 15**

Starting Time: 08:00AM **Ending Time: 08:20AM**

Q.1 Tick correct option accordingly. Each part carry one mark.

Q1. Inertia of a body depends on

a. Weight of the object b. acceleration due to gravity c. mass of the object d. both a&b

Q2. impulse is equal to

a. rate of change of momentum b. rate of force and time c. change of momentum d. rate of change of mass

Q3. in which of the following sport for the turning effect of force used

a. swimming b. tennis c. cycling d. hockey

Q4. plotting a graph for the momentum on the x-axis is and time on y axis slope of momentum time graph gives

a. impulsive force b. acceleration c. force d. rate of force

Q5. Newton's third law is applicable

a. for a body at rest b. for a body in motion c. both a&b d. only for bodies with equal masses

Q6. the unit of g is ms^-2 . it can be also expressed as

a. cms^-1 b. N kg^-1 c. N m^2 kg^-1 d. cm^2 s^-2

Q7. 1 kilogram force equals to

a. 9.8 dyne b. 9.8*10^4 N c. 98*10^4 dyne d. 980 dyne

Q8. the mass of your body is measured on your planet earth as M kg when it is taken to a planet of radius half that of the earth then its value will be _____kg

a. 4 M b. 2 M c. M/4 d. M

Q9. if the Earth shrinks 50 % of its real radius its mass remaining the same the weight of your body on the earth will

a. decreases by 50 % b. increases by 50 % c. decreases by 25 % d. increases by 300%

Q10. To project the rockets which of the following principles are required

a. Newton's third law of motion b. Newton's law of gravitation c. law of conservation of momentum d. both a and c

Q11. the refractive index of four substances aA,B,Cand D are 1.31 1.43 1.33 2.4 respectively the speed of light is maximum in

a.A b. B c. C d. D

Q12. where should an object be placed so that a real and inverted image of same size is obtained by a convex lens

a. f b. 2f c. infinity d. between f and 2f

Q13. small bulb is placed at the principal focus of a convex lens and the bulb is switched on the lens will produce

a. convergent beam of light b. divergent beam of light c. parallel beam of light d. coloured beam of light