

X- SCIENCE – UNIT -1 – MODEL QUESTION PAPER – 2024**TOTAL MARK : 25 M****Choose the best correct answer (5 x 1 = 5m)**

1. In which of the following sport the turning of effect of force used

- a) swimming b) tennis c) cycling d) hockey

2. The mass of a body is measured on 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) 2M c) M/4 d) M

3. Impulse is equals to

- a) rate of change of momentum b) rate of force and time
c) Change of momentum d) rate of change of mass

4. To project the rockets which of the following principle(s) is / (are) required?

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

Fill in the blanks:

5. A man of mass 100 kg has a weight of _____ at the surface of the Earth.

Answer any FIVE questions (5 x 3 =15 m)

6. Why a spanner with a long handle is preferred to tighten screws in heavy vehicles?

7. While catching a cricket ball the fielder lowers his hands backwards. Why?

8. How does an astronaut float in a space shuttle?

9. State Newton's first law

10. A mechanic unscrew a nut by applying a force of 140 N with a spanner of length 40 cm. What should be the length of the spanner if a force of 40 N is applied to unscrew the same nut?

11. If a 5 N and a 15 N forces are acting opposite to one another. Find the resultant force and the direction of action of the resultant force

Answer any ONE questions (1 x 5 =5 m)

12.State and prove the law of conservation of linear momentum.

13.Describe rocket propulsion.

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