GSS Majuwa Gulmi, Lumbini province, Nepal

Subject: Science (Set 1/objective)

Class: 10 **Unit: 1 (Force)**

Your name..... **Class**..... **Roll No**.....

Directions: Tick correct answer in the box.

A. If the mass of two bodies A & B increases by two times each by keeping distance between them from their centers constant, the gravitational force

(i) Becomes constant (ii) increases by 4 times

(iii)decreases by 2 times (iv) increases by 2 times

B. What is the value of acceleration due to gravity at the pole of the earth?

(i) Zero (ii) $9.8m/s^2$

(iii) $9.78m/s^2$ (iv) $9.83m/s^2$

C. What would be the force of attraction between any two bodies if masses of both bodies are made double and distance between their centers is halved?

(i) 2 times (ii) 8 times

iii) 16 times (iv) 4 times

D. Which one is correct relation?

(i) $g \propto R$ (ii) $g \propto 1/R^2$

(iii) $g \propto 1/R$ (iv) $g \propto 1/R^3$

E. How much mass can be lifted by a weightlifter on the surface of the moon if he can lift 100kg on the earth?

(i) 586.8kg (ii) 855kg

iii) 568kg (iv) 585kg

F. Which is the value of 'G' on the surface of the moon?

(i) $6.67\times10^{-11}Nm^2/kg^2$ (ii)$9.8m/s^2$

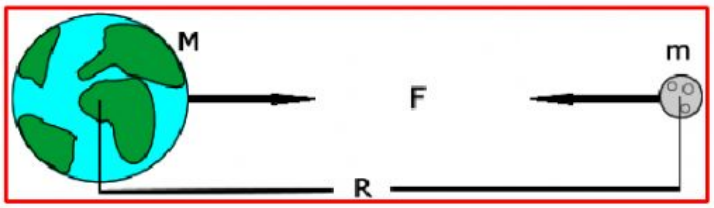
(iii) 760mm of Hg (iv) $10m/s^2$

G. What is the value of gravitational force in between two bodies of mass xkg and 2xkg separated by x meter distance between their centers?

(i) $13.34\times10^{-11}N$ (ii) $6.67\times10^{-11}N$

(ii)$15.34\times10^{-11}N$ (iv) $8\times10^{-11}N$

H. Look at the picture alongside and tick best option below.



(i) $F = \frac{GMm}{R^2}$

(ii) $F = \frac{Gm_1m_2}{R^2}$

(iii) $F = \frac{GMm}{r^2}$

(iv) $F = \frac{GMm}{d^2}$

By Sunil Thapa