

Note:- Section B is compulsory. Attempt any two (2) questions from Section C.

نوٹ: حصہ دوم لازمی ہے۔ حصہ سوم میں سے کوئی سے دو سوالوں کے جوابات لکھئے۔

SECTION-B حصہ دوم

2. Write short answers to any five parts. (5x2=10)
- What is meant by base quantities and base units?
 - What is meant by positive and negative zero error of screw gauge?
 - Convert 12 years into seconds.
 - Differentiate between vectors and scalars.
 - What is the difference between variable speed and uniform speed?
 - Differentiate between distance and displacement.
 - What is the SI unit of force? Define it.
 - Write two disadvantages of friction.
3. Write short answers to any five parts. (5x2=10)
- What is meant by neutral equilibrium?
 - What is meant by rigid body?
 - Why does the value of "g" vary from place to place?
 - What is field force?
 - What are artificial satellites?
 - Define Work. What is its SI unit?
 - Why do we need energy?
 - Define Potential Energy and write its formula.
4. Write short answers to any five parts. (5x2=10)
- State the principle of floatation.
 - Define Elasticity.
 - State Hook's Law and write its formula.
 - Define Specific Heat of Substance.
 - What is meant by anomalous expansion of water?
 - Write the uses of Styrofoam.
 - Why conduction of heat does not take place in gases?
 - Write down two uses of non-conductors.

حصہ سوم (ہر سوال کے نو نمبر ہیں)

SECTION - C (Each question carries nine 09 Marks)

5. (a) Derive second equation of motion with the help of speed-time graph. (1+3) (الف) پیدائش نام گران کی مدد سے حرکت کی دوسری مساوات اخذ کیجئے۔
- (b) A body has weight 20N. How much force is required to move it vertically upward with an acceleration of $2ms^{-2}$? (5) (ب) ایک جسم کا وزن 20N ہے۔ اس کو $2ms^{-2}$ کے ایکسریشن سے پیدا اور اڑھانے والے جانے کیلئے کتنی فورس کی ضرورت ہوگی؟
6. (a) Using Newton's Law of Gravitation, find the mass of the earth. (3+1) (الف) نیوٹن کے گریویٹیشن کے قانون کی مدد سے زمین کا ماس معلوم کیجئے۔
- (b) Calculate the power of a pump which can lift 200kg of water through a height of 6m in 10 seconds. (5) (ب) ایک پمپ 200kg پانی کو 10 سیکنڈ میں 6m کی بلندی تک پہنچا سکتا ہے۔ پمپ کی پاور معلوم کیجئے۔
7. (a) What is evaporation? Explain any three factors on which rate of evaporation depends. (1+3) (الف) ایپوریشن کیا ہے؟ کوئی سے تین عوامل کی وضاحت کیجئے جن پر ایپوریشن کی شرح کا انحصار ہوتا ہے۔
- (b) A wooden cube of sides 10cm each has been dipped completely in water. Calculate the upthrust of water acting on it. (5) (ب) ایک گولی کا کعبہ جس کے ہر ضلع کی لمبائی 10cm ہے۔ پانی میں مکمل طور پر ڈوبا ہوا ہے۔ اس پانی کے اچھال کی فورس معلوم کیجئے۔