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VA—25—2024

FACULTY OF SCIENCE

B.Sc. (First Year) (First Semester) EXAMINATION

NOVEMBER/DECEMBER, 2024

(New Pattern)

PHYSICS

Paper-I

(Mechanics and Properties of Matter)

(Thursday, 5-12-2024)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— All questions are compulsory.

1. Explain surface tension. Explain in detail Ferguson's method to find surface tension of liquid. 15

Or

(a) Explain Gravitational field, intensity, gravitational potential and gravitational potential energy. 8

(b) Explain Newton's laws of motion. 7

2. What is cantilever ? Give the expression for depression when the weight of beam is effective and ineffective. 15

Or

(a) Explain in detail the Bernoulli's theorem. 8

(b) Determine coefficient of viscosity by Poiseuille's method. 7

P.T.O.

WT

(2)

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3. Write short notes on (any two) :

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- (a) Kepler's laws of planetary motion
- (b) Excess pressure across a soap bubble
- (c) Critical velocity
- (d) Bending moment.

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