Step Academy official

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STUDENT NAME	
PAPER CODE	25019
TIME ALLOWED	60
Paper Date	06-02-2026

CLASS	New 1st Year (FSC/ICS)
SUBJECT	Physics
TOTAL MARKS	25
Paper Type	

Q1. Choose the correct answer. **5X1=5**

1. When stress exceeds the elastic limit, the material enters the:

(A) Brittle zone **(B)** Proportional limit **(C)** Plastic region **(D)** Elastic zone

2. The material which has high elastic limit:

(A) Steel **(B)** Rubber **(C)** Glass **(D)** Copper

3. In an ideal fluid, energy loss due to internal friction is:

(A) Zero **(B)** Maximum **(C)** Constant **(D)** NOne

4. The equation of continuity is based on the principle of:

(A) Conservation of energy **(B)** Conservation of momentum **(C)** Conservation of mass **(D)** Conservation of volume

5. The Bernoulli's equation is for a fluid which is:

(A) Viscous **(B)** Compressible **(C)** Inturblen flow **(D)** In steady flow

6. Young's modulus for water is:

(A) Zero **(B)** 1 **(C)** 2 **(D)** 3

Q2. Write short answers of the following questions. **5X2=10**

1 . Differentiate between stress, strain and Young's modulus. Write down their SI units.

2 . State Bernoulli's equation for a liquid in motion and describe some of its applications.

3 . A person is standing near a fast moving train, is there any danger that he will fall towards it?

4 . Two row boats moving parallel in the same direction are pulled towards each other. Explain.

5 . Why wings of an aeroplane are round outward while flattened inward?

Q3. Write detailed answers of the following questions. **2X5=10**

1 . State and prove Bernoulli's equation.

2 . A tank filled with water has a hole at a depth of 5 m from the water surface. Calculate the velocity of water flowing out of the hole.