

Step Academy official

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STUDENT NAME	
PAPER CODE	77426
TIME ALLOWED	60
Paper Date	09-02-2026



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

Q1. Choose the correct answer.

5X1=5

1. Which of the following devices can be used to polarize light?

- (A) Prism (B) Convex lens (C) Polaroid sheet (D) Plane mirror

2. Polarized sunglasses are use because they:

- (A) Block all light (B) Allow only longitudinal light (C) Reduce glare by blocking horizontal light (D) Magnify incoming light

3. In which phenomenon does the vibration of light occur in multiple planes?

- (A) Polarized light (B) Unpolarized light (C) Circularly polarized light (D) Plane-polarized light

4. If the refractive index of a medium is 1.5, the Brewster's angle is:

- (A) 45° (B) 56.3° (C) 30° (D) 60°

5. Gravitational waves are ripples in:

- (A) Space (B) Time (C) Magnetic fields (D) Space-time

Q2. Write short answers of the following questions.

5X2=10

- 1 . What are the applications of Brewster's angle?
- 2 . Would it be possible to use a polarizer as an analyzer? If yes, give at least two examples.
- 3 . Is Malus' law applicable to unpolarized light?
- 4 . Why are gravitational waves important in astronomy?
- 5 . How are tidal forces related to space-time distortion?

Q3. Write detailed answers of the following questions.

2X5=10

- 1 . State Malus's law. Explain the intensity formula.
- 2 . We wish to use a glass plate of refractive index of 1.5 in air as a polarizer. Find the polarizing angle and angle of refraction.