

TILAK MAHARASHTRA VIDYAPEETH, PUNE
B.Sc. AVIATION, HOSPITALITY & TRAVEL TOURISM (761)
EXAMINATION: NOVEMBER - 2025
THIRD SEMESTER (2024 PATTERN)
Subject : Physics (761308)

Date: 25/11/2025**Total Marks: 30****Time: 10.00 am to 11.30 am**

- Instructions:**
- 1) Q1. Is compulsory
 - 2) Each question carries equal marks.
 - 3) Attempt any 02 questions from the remaining

Q. 1 Explain the following terms (any 10) (10)

1. Define a physical quantity.
2. Define the SI unit of force.
3. State Newton's First Law of Motion.
4. Define least count of an instrument.
5. Define average speed.
6. Write SI unit of acceleration.
7. Define moment of inertia.
8. Define acceleration due to gravity (g).
9. Define escape velocity.
10. Define stress.

Q. 2 Answer the following: (2 Marks each) (10)

1. State the first law of thermodynamics
2. Define kinetic energy with formula.
3. Define displacement and how it differs from distance.
4. A car accelerates uniformly from rest and attains a velocity of 20 m/s in 5 s. Find its acceleration and the distance covered in this time.
5. What is momentum?

(10)

Q. 3 Explain in brief : (5 Marks each)

1. State and explain the Second Law of Thermodynamics. Give two statements.
2. Explain Pascal's Law with one application.

Q. 4 Write note on following: (2 Marks each) (10)

1. What is surface tension?
2. Define potential energy with an example
3. Explain the difference between speed and velocity.
4. Define torque and explain its significance in rotational motion
5. Define heat capacity.