Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

B.Sc (OTT)   (Sem.–2)
APPLIED PHYSICS
Subject Code : BSOT-208-19
M.Code : 79844
Date of Examination : 24-12-2022

Time : 3 Hrs.   Max. Marks : 50

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying ONE marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. **Write briefly :**

   a. Define Potential Energy.

   b. What do you understand by Mechanical Efficiency?

   c. What is Molecular weight of the gases?

   d. What are the uses of Thermocouple?

   e. Define specific heat capacity.

   f. State Dalton's law of partial pressure.

   g. Define the process of Diffusion.

   h. How can you prevent explosions?

   i. What is viscosity of a fluid?

   j. What is a compressed gas?

SECTION-B

2. Explain the concept of Density of Gases and molecular agitation.

3. Discuss the concept of Heat capacity of gases.

4. Discuss Dalton's law of partial pressure in detail.

5. Explain turbulent flow pressure loss due to abrupt change in bore of tube.

6. Explain Bernoulli's principle and its clinical application.

SECTION-C

7. Explain and discuss all Gas laws.

8. What is the difference between Oxidation and Combustion? What are deflagrations and how can explosions be prevented?

9. State and derive the expression of thermal conductivity.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.