PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF ENGINEERING
MID TERM EXAMINATION - DEC 2023

Semester : Semester I - 2023
Course Code : PET1002
Course Name : Sem I - PET1002 - Introduction To Oil and Gas Industry
Program : B. TECH

Date : 11-DEC-2023
Time : 2:30 PM - 4:00 PM
Max Marks : 50
Weightage : 25%

Instructions:
(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS   **(5 X 3 = 15M)**

1. Define renewable energy.

                                                            (CO1) [Knowledge]

2. Highlight the primary advantage of renewable energy sources over non-renewable sources in terms of sustainability.

                                                            (CO1) [Knowledge]

3. Enlist some environmental impact of using non-renewable energy sources.

                                                            (CO1) [Knowledge]

4. Name at least two non-renewable energy sources.

                                                            (CO1) [Knowledge]

5. List some (at least four) examples of a renewable energy source.

                                                            (CO1) [Knowledge]

PART C

ANSWER ALL THE QUESTIONS   **(3 X 5 = 15M)**

6. Define the term bulk volume, pore volume and matrix volume which are relevant with respect to porosity.

                                                            (CO2) [Comprehension]

7. Examine in depth the intricacies of diagenesis and its underlying processes.

                                                            (CO2) [Comprehension]

8. Provide a comprehensive discussion on the process of formation of hydrocarbons during the catagenesis stage.

(CO2) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS   **(2 X 15 = 30M)**

9. Drawing upon your comprehensive comprehension of the petroleum industry, elucidate in a critically discerning manner the paramount significance it holds in the context of national progress and development.

(CO1) [Application]

10. Let's assume you are given a cuboid filled with the solid balls of dimension 100 cm in diameter. The dimensions of the cuboid are 3 meter in length, 3.28 ft in breadth, and 6.56 ft in height. Based on your understanding about the pore volume, matrix volume and bulk volume, try to obtain the porosity and matrix volume of the cuboid.

(CO1) [Application]