PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – October 2025

Date: 08-10-2025   **Time:** 11.45am to 01.15pm

School: SOE	**Program:** B.Tech (PET)	
Course Code : PET2032	**Course Name:** Petroleum Economics	
Semester: V	**Max Marks**: 50	**Weightage**: 25%

CO - Levels	CO1	CO2	CO3	CO4	CO5
Marks	14	12	12	12	-

Instructions:

    (i) Read all questions carefully and answer accordingly.

    (ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks.   **5Q x 2M=10M**

1	Identify fixed capital investment and working capital.	2 Marks	L1	CO1
2	Define salvage value with a suitable example.	2 Marks	L1	CO1
3	Describe book value and market value with a suitable example.	2 Marks	L1	CO2
4	Define declining balance depreciation and sum-of-the-digits depreciation.	2 Marks	L1	CO3
5	List two advantages of using the Straight-Line depreciation method in petroleum projects.	2 Marks	L1	CO4

Part B

	Answer the Questions.	**Total Marks 40M**		
6.	Describe the concept of effective interest rate and explain why it is important in evaluating long-term oil and gas investments compared to nominal interest.	10 Marks	L2	CO1
	Or			
7.	Differentiate among simple, compound, effective, and nominal	10 Marks	L2	CO1

	interest, and summarize their applications in oil and gas project evaluations.			

8.	The capital cost of an oil field separator is $15,000, with a lifetime of 35 years. If money can be invested at 5% (annual interest rate), Calculate i. The annual depreciation costs ii. The annual capital recovery iii. Capital recovery factor iv. Sinking fund factor	10 Marks	L3	CO2
	Or			
9.	Apply the concept of compound interest to calculate the accumulated sum after 2 year for a principal of $2,000 compounded daily at a nominal interest rate of 20%, repeat the calculation for continuous compounding. Further, calculate the compounding and continuous interest.	10 Marks	L3	CO2

10.	Summarize the concept of depletion and describe any two method commonly used for valuing petroleum reserves.	10 Marks	L2	CO3
	Or			
11.	Explain how India's status as a major oil importer makes understanding depreciation and depletion of domestic petroleum assets important for long-term planning.	10 Marks	L2	CO3

12.	Compare Sinking Fund Depreciation with Declining Balance Depreciation in terms of their impact on cash flows in an offshore project.	10 Marks	L4	CO4
	Or			
13.	Examine the role of OPEC in oil price movements and analyze how sudden discovery of a large petroleum resource in a country could affect asset valuation, depletion planning, and taxation policies.	10 Marks	L4	CO4