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

Total No. of Questions : 09

B.Tech. (Petroleum Refinery Engineering) (2013 Batch EL-II)
(Sem.–8)

PETROLEUM ECONOMICS

Subject Code : BTPC-803(D)
Paper ID : [74325]

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO 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. Answer briefly :

a) Does crude oil prices affect natural gas prices?

b) Define Reserve auditing.

c) Explain NPV and how it is calculated.

d) What are the main OPEC countries?

e) What is information needed for economic evaluation of an E&P project?

f) Mention the steps to determine the present value of an annuity due.

g) Explain Time Value of Money.

h) What is real option theory?

i) What is the difference between depreciation and amortization?

j) What is NELP?

SECTION-B

Q2. Explain the crude oil pricing mechanism.

Q3. Describe the standard practices for reporting reserves.

Q4. Express your assessment on E&P activities of any National Oil company.

Q5. If an oil company expects a cash flow of $800,000 by the end of 10 years, and 10% is the current interest rate on money, calculate the N.P.V. of this venture.

Q6. Explain the concept of Preference Theory with example.

SECTION-C

Q7. Explain Geopolitics of oil. Describe the current geopolitical situations with respect to India.

Q8. Calculate the payout period for the two alternatives of capital expenditures involving an investment of $2 million each for a sulfur removal plant, as given below. The life of project 1 and project 2 is 6 and 10 years, respectively.

Year	**Cash Flow (S)**	
	Project 1	**Project 2**
0	2,000,000	2,000,000
1	1,500,000	200,000
2	500,000	300,000
3	400,000	400,000
4	350,000	400,000
5	250,000	400,000
6	200,000	400,000
7	100,000	400,000
8	–	400,000
9	–	400,000
10	–	400,000

Q9. Describe the role of OPEC and Non-OPEC countries in global oil scenario.