


Name:			
Enrolment No:			
<b>UPES</b> <b>End Semester Examination, May 2023</b>			
<b>Course: Oil Field Asset Management</b> <b>Program: B. Tech. APE UPSTREAM</b> <b>Course Code: CHCE 4004P</b>		<b>Semester: VIII</b> <b>Time : 03 hrs.</b> <b>Max. Marks: 100</b>	
<b>Instructions: All questions are compulsory.</b>			
<b>SECTION A</b> <b>(4Qx5M=20Marks)</b>			
S. No.		Marks	CO
Q1.	State the objectives and benefits of asset management.	5	CO1
Q2.	Discuss the roles of an asset manager.	5	CO1
Q3.	Describe the relationship between post auditing and company's growth.	5	CO2
Q4.	a) Discuss Probable Possible, Proved Reserves, and Prospective Resources. b) Given the following data of an oil field, calculate the Initial Oil in Place. Area = 24,650 acres, Net productive thickness = 54 ft, Porosity = 20%, Average $S_{wi} = 35\%$ , $B_o$ at $p_i = 1.42$ bbl/STB.	5	CO3
<b>SECTION B</b> <b>(4Qx10M= 40 Marks)</b>			
Q5.	Discuss asset valuation along with its methods and importance.	10	CO2
Q6.	Describe the front-end loading tool used for asset management process in oil and gas industry.	10	CO3
Q7.	Explain hydrocarbon exploration licensing policy (HELP) and how it is different from NELP.	10	CO3
Q8.	Explain in depth the objectives of energy policy and the tools that are used with examples.	10	CO3

**SECTION-C**  
**(2Qx20M=40 Marks)**

Q9.	<p>Elaborate the various phases of Oil Feld asset management life cycle.</p> <p style="text-align: center;">Or</p> <p>Summarize asset management models and parameters under each subgroup to be considered for a project in oil and gas industry.</p>	<b>20</b>	<b>CO4</b>																		
Q10.	<p>a) Explain the essential steps of a risk management process.</p> <p>b) A company has to make a choice between two projects, namely A and B. The initial capital outlays of two projects are Rs. 1,35,000 and Rs. 2,40,000 respectively for A and B. there will be no scrap value at the end of the life of both the projects. The opportunity cost of capital of the company is 16%. The annual incomes are as under:</p> <table border="1" data-bbox="337 905 1118 1318"> <thead> <tr> <th>Year</th> <th>Project A</th> <th>Project B</th> </tr> </thead> <tbody> <tr> <td>1</td> <td style="text-align: center;">-</td> <td style="text-align: center;">60000</td> </tr> <tr> <td>2</td> <td style="text-align: center;">30,000</td> <td style="text-align: center;">84,000</td> </tr> <tr> <td>3</td> <td style="text-align: center;">1,32,000</td> <td style="text-align: center;">96,000</td> </tr> <tr> <td>4</td> <td style="text-align: center;">84,000</td> <td style="text-align: center;">1,02,000</td> </tr> <tr> <td>5</td> <td style="text-align: center;">84,000</td> <td style="text-align: center;">90,000</td> </tr> </tbody> </table> <p>You are required to calculate for each Project A and B</p> <p>i) Discounted Payback period ii) Profitability Index iii) NPV</p>	Year	Project A	Project B	1	-	60000	2	30,000	84,000	3	1,32,000	96,000	4	84,000	1,02,000	5	84,000	90,000	<b>20</b>	<b>CO4</b>
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