Name: **Enrolment No:**	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2022

Course: Financing Energy Sector Projects **Semester: VI**
Program: BA Economics (Specialization in Energy Economics) **Time : 03 hrs.**
Course Code: FINC 3006 **Max. Marks: 100**

Instructions: This paper has three sections A, B and C. Please read the instructions in the respective sections.

SECTION A
10Qx2M=20Marks

S. No.		Marks	CO
Q 1	Attempt the following multiple choice questions:		**CO1**
1	Which of the following is not the capital budgeting decision? a. Replacement Projects b. Bill Discounting Decision c. Expansion Projects d. New product & services	**02**	**CO1**
2	"To Calculate Present Value from any Future value, which one of the following we do ?" a. Multiply Future value by effective Rate of Interest b. Divide Future value by effective Rate of Interest c. Plus Future value by effective Rate of Interest d. Minus Future value by effective Rate of Interest	**02**	**CO1**
3	What is the decision rule for NPV ? a. NPV = 0 b. NPV < 0 c. NPV >= 0 d. NPV > 0	**02**	**CO1**
4	Business Risk to the firm of being unable to cover: a. Fixed Operating Cost b. Variable Cost c. Fixed Cost d. None of them	**02**	**CO1**
5	Sensitivity Analysis is a/an a. Relative measure b. Statistical measure c. Absolute measure of risk d. All the them	**02**	**CO1**
6	Production Sharing Contract include a. Cost Oil and Profit Oil b. "Royalty, VAT, Cost Oil and Profit Oil"	**02**	**CO1**

	c. Profit Oil Only d. Cost Oil Only		
7	The operating leverage may be defined as a. The firm's ability to use fixed operating costs to magnify the effects of changes in the sales on its earnings before interest and taxes. b. The firm's ability to use fixed operating costs to magnify the effects of changes in the sales on its earnings after interest and taxes. c. The firm's ability to use fixed operating costs to magnify the effects of changes in the cost on its earnings before interest and taxes. d. The firm's ability to use fixed operating costs to magnify the effects of changes in the sales on its earnings after taxes.	**02**	**CO1**
8	Which of the risks given below are not directly related with the project but related with the environment in which the project operates: a. Inflation risk, b. Interest rate risk, c. Currency exchange risk d. All of the above	**02**	**CO1**
9	Which crowdfunding method is defined as an offer of securities for sale by a private business to the general public, often through an online platform: a. Reward based b. Donation based c. Equity based d. Lending based	**02**	**CO1**
10	Which of the following is defining life cycle cost model: a. This model provides structure for determining the total economic cost of proposed governmental actions. b. This model helps to address the problem of capturing all relevant costs. c. It organizes costs by when during an activity's life they occur. d. All of the above	**02**	**CO1**
SECTION B **4Qx5M= 20 Marks**			
Q	Attempt the following questions:		**CO2**
1	A company is considering an investment proposal to instal new milling controls at a cost of Rs. 50,000. The facility has a life expectancy of 5 years and no salvage value. The tax rate is 35 per cent. Assume the firm uses straight line depreciation and the same is allowed for tax purposes. The estimated cash flows before depreciation and tax (CFBT) from the investment proposal are as follows:	**05**	**CO2**

<table>
<tr><td></td><td><table><tr><td>Year s</td><td>CFBT</td></tr><tr><td>1</td><td>Rs. 10,000</td></tr><tr><td>2</td><td>Rs. 10,692</td></tr><tr><td>3</td><td>Rs. 12,769</td></tr><tr><td>4</td><td>Rs. 13,462</td></tr><tr><td>5</td><td>Rs. 20,385</td></tr></table>
Compute the following :
a. Pay Back Period
b. Average rate of return
Assume : 10 percent discount factor. Use PV table.</td><td></td><td></td></tr>
<tr><td>2</td><td>What is an indifference point in EBIT-EPS analysis? How would you compute it?</td><td>05</td><td>CO2</td></tr>
<tr><td>3</td><td>Compute the DOL from the following information:
<table><tr><td></td><td>Base Level</td><td>New level</td></tr><tr><td>Units sold</td><td>1000</td><td>1100</td></tr><tr><td>Sales price per unit</td><td>Rs. 10</td><td>Rs. 10</td></tr><tr><td>Variable Cost per unit</td><td>6</td><td>6</td></tr><tr><td>Fixed operating cost</td><td>Nil</td><td>Nil</td></tr></table></td><td>05</td><td>CO2</td></tr>
<tr><td>4</td><td>Difference between corporate finance and project finance.</td><td>05</td><td>CO2</td></tr>
<tr><td colspan="4">SECTION-C
3Qx10M=30 Marks</td></tr>
<tr><td>Q</td><td>Attempt the following questions:</td><td></td><td>CO3</td></tr>
<tr><td>1</td><td>Contrast the IRR and NPV methods. In which circumstances these methods give contradictory results, and also recommend that which criteria should be used to select the project and why?</td><td>10</td><td>CO3</td></tr>
<tr><td>2</td><td>A company has the following estimates of the present values of the future cash flows after taxes associated with the investment proposal, concerned with expanding the plant capacity. It intends to use a decision-tree approach to get a clear picture of the possible outcomes of this investment. The plant expansion is expected to cost Rs. 3,00,000. The respective PVs of future CFAT and probabilities are as follows:
PV of future CFAT
<table><tr><td>With expansion</td><td>Without expansion</td><td>Probabilities</td></tr><tr><td>Rs. 3,00,000</td><td>Rs. 2,00,000</td><td>0.2</td></tr><tr><td>Rs. 5,00,000</td><td>Rs. 2,00,000</td><td>0.4</td></tr><tr><td>Rs. 9,00,000</td><td>Rs. 3,50,000</td><td>0.4</td></tr></table>
Advise the company regarding the financial feasibility of the project.</td><td>10</td><td>CO3</td></tr>
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3	"Debt finance help the business owner to protect his/her equity while stresses the business to generate revenue." Discuss various sources of finance and provide a comparative analysis of sources of finance.	**10**	**CO3**
SECTION-D **2Qx15M= 30 Marks**			
Q	Attempt the following questions:		**CO4**
1	Assume that Tyler Co. is involved in Petroleum Operation in Trinidad. Tyler has 49% Working Interest (WI) while Local Oil Company has 51% WI. Annual Gross production is to be split in the following order: 1. Royalty is 15% of annual gross production and is to be paid in kind. 2. VAT is equal to 5% of annual gross production and is to be paid in kind. 3. Cost Oil is limited to 60% of gross production, with costs to be recovered in the following order: i. Operating expenses ii. Exploration Cost (Paid entirely by Co.) iii. Development Cost (49 % by Co. and 51% by local oil co.) 4. Any excess remaining after cost recovery becomes profit oil: i. The government receives 12% of the profit oil. ii. the remainder split between the co and local oil company based on their WI For 2015 assume the following: • Recoverable Operating cost total \$6,000,000 • Exploration cost (unrecovered to date) total 60,000,000. • Development Cost (unrecovered to date) total 600,000,000. • Any cost not recovered in the current year may be carried forward to be recovered in future years. • The gross production for the year is 3,000,000 bbl of oil. • The agreed up price is \$ 60/bbl. **Q. 1** Prepare the Crude Oil Production Sharing to Parties Statement. **Q.2** Analyze the shares of Government, Local company and Tyler Co.	 **15** **15**	 **CO4** **CO4**