Code No: 155BD **R18**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year I Semester Examinations, February - 2022
ENGINEERING ECONOMICS AND ACCOUNTANCY
(Common to CE, MMT)

Time: 3 hours **Max. Marks: 75**

Answer any five questions
All questions carry equal marks

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1.a) Define elasticity of demand. Describe the various methods of measuring the elasticity of demand.
b) Explain the basic principles and methodology of engineering economics. [8+7]

2.a) Explain Baumol's sales maximization theory.
b) Explain the Marris balanced rate of growth theory of the firm. [7+8]

3.a) Explain the methods of inflation calculation and describe the measures to control inflation.
b) Explain the various concepts of national income. [8+7]

4.a) Explain the new Industrial policy of India.
b) Define Fiscal policy. Explain in detail with recent amendments. [7+8]

5.a) What are the various methods of evaluating capital expenditure proposals? Write its merits and demerits.
b) Dream well Co. is considering two projects, X & Y, with cash flows (CF) as shown below:

Period	CF(X)	CF(Y)
0	-60,000	-120,000
1	23,000	70,000
2	23,000	30,000
3	23,000	30,000
4	23,000	25,000

The opportunity cost of capital for X is 13%. The opportunity cost of capital for Y is 11%. Calculate the Payback period, ARR and NPV for each project. Based on your analysis which project should be accepted? [8+7]

6.a) Distinguish between profits and cash flows. Why are cash flow important in investment decisions?

b) **Bullock Gold Mining: -**

Seth Bullock, the owner of Bullock Gold Mining, is evaluating a new gold mine in South Dakota. Dan Dority, the company's geologist, has just finished his analysis of the mine site. He has estimated that the mine would be productive for eight years, after which the gold would be completely mined. Dan has taken an estimate of the gold deposits to Alma Garrett, the company's financial offer. Alma has been asked by Seth to perform an analysis of the new mine and present her recommendations on whether the company should open the new mine. Alma has used the estimates provided by Dan to determine the revenue that could be expected from the mine. She has also projected the expenses of opening the mine and the annual operating expenses. If the company opens the mine, it will cost $750 million today, and it will have a cash outflow of $75 million nine years from today in costs associated with closing the mine and reclaiming the area surrounding it. The expected cash flow each year from the mine are shown in the following table. Bullock Mining has a 12% required return on all of its gold mines.

Year	Cash Flow
0	-$750,000,000
1	130,000,000
2	180,000,000
3	190,000,000
4	245,000,000
5	205,000,000
6	155,000,000
7	135,000,000
8	95,000,000
9	-75,000,000

i) Calculate PBP, IRR, NPV and PI value of the proposed mine.
ii) Based on your analysis, should the company open the mine? [7+8]

7.a) Illustrate the EBIT-EPS analysis with suitable example.

b) The more debt the firm issues, the higher the interest rate it must pay. That is one important reason why companies should operate at conservative debt levels. Critically evaluate this statement. [8+7]

8.a) Explain the following:
i) Profit Volume Ratio ii) Break Even Point iii) Margin of Safety

b) Explain the following: i) Journal ii) Trial Balance. [9+6]

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