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Total Number of Pages : 02

B.Tech  
PEK3E001

3<sup>rd</sup> Semester Back Examination 2019-20  
ENGINEERING ECONOMICS

BRANCH : AEIE, AERO, AUTO, BIOMED, BIOTECH, CHEM, CIVIL, CSE, ECE, EEE, EIE,  
ELECTRICAL, ENV, ETC, FAT, IEE, IT, MANUFAC, MANUTECH, MECH, METTA, MINERAL,  
MINING, MME, PE, PLASTIC, PT, TEXTILE

Max Marks : 100

Time : 3 Hours

Q.CODE : HB753

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

Part-I

Q1 Only Short Answer Type Questions (Answer All-10) (2 x 10)

- Define semi variable cost.
- Two equivalent values are always equivalent. Justify with an example.
- What is derived demand?
- Define hyperinflation.
- How bank rate helps in controlling credit?
- What is net national product?
- Define marginal revenue? Draw the diagram of MR.
- What do you mean salvage value?
- What are the implication of P/V ratio?
- Write down the characteristics of isoquant curve.

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- Illustrate the law of supply.
- Describe different causes of depreciation.
- Find out the maturity value (F<sub>10</sub>), interest amount (I) and effective interest rate (i<sub>eff</sub>) of Rs.2,00,000/ planned to be invested in a project for 10 years at a discount rate of 8.5% compounded quarterly and daily .
- Briefly explain the characteristics of perfect competitive market.
- What is increasing return to scale?
- Find out the equivalent value of sales of a company at the end of sixth year. Sale of first year is Rs10,000/ which increases by Rs.1,000/ per annum till the end of fifth year, where i=8.5% compounded annually.
- Explain how to minimize cost in long run?
- How desirability of a public project is tested in CBA method?
- Form the following test the feasibility of project by using NFV method where i=8.5%.

Year	0	1	2	3	4	5
Cash	-	8000	6000	6000	5000	4000
Flow	28,000					

- Explain the factors affecting quantity of demand of a good.
- What are the methods to control inflation?
- Describe total expenditure method of measuring national income.

**Part-III**

**Only Long Answer Type Questions (Answer Any Two out of Four)**

**Q3** Describe the law of variable proportion. What are the factors that causes the three stages to happen? **(16)**

**Q4** Explain different functions of central bank of a country. **(16)**

**Q5** Explain break even analysis in detail. Discuss different parameters to study the economic health of a firm. **(16)**

**Q6** **(16)**

Direct labor=Rs.1,50,000  
Direct Material=Rs.4,10,000  
Fixed overhead=Rs.1,2,0000  
Variable overhead=Rs.2,00,000  
Sales=Rs.10,00,000

Study the effect on break even sales  
a)if fixed overheads increases by 10%  
b)if variable overheads increases by 10%.