**18ME601**

**Hall Ticket Number:**

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| **III/IV B.Tech (Regular) DEGREE EXAMINATION** | | | |
| **July, 2021** | **Mechanical Engineering** | | |
| **Sixth Semester** | **ENGINEERING ECONOMICS AND FINANCIAL ANALYSIS** | | |
| **Time:** Three Hours | | **Maximum: 5**0 Marks | |
| *Answer Question No. 1 Compulsorily.* | | | (10X1 = 10 Marks) |
| *Answer* ***ANY ONE*** *question from each Unit.* | | | (4X10=40 Marks) |
| *Answer* ***all*** *questios from Q1* | | | (1X10=10 Marks) |

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| 1. | a) | Economics | CO1 | |  |
|  | b) | Present worth | CO1 | |  |
|  | c) | Time value of money | CO1 | |  |
|  | d) | P/V ratio | CO2 | |  |
|  | e) | Depreciation | CO2 | |  |
|  | f) | Capital budgeting | CO3 | |  |
|  | g) | Trial Balance | CO3 | |  |
|  | h) | Working capital. | CO3 | |  |
|  | i) | State the three types of errors in drawing networks. | CO4 | |  |
|  | j) | What are the types of Activities in project management? | CO4 | |  |
| **Unit - I** | | | | | |
| 2. | a) | Elaborate the relationship between Engineering, Technology and Economic Development | CO1 | **5M** | |
|  | b) | Briefly explain the various factors of production. | CO1 | **5M** | |
|  |  | Or |  |  | |
| 3. | a) | Define economics and explain relevance decision making for engineers | CO1 | **5M** | |
|  | b) | Compare price elasticity and income elasticity. | CO1 | **5M** | |
| **Unit - II** | | | | | |
| 4. | a) | Explain cost concept. Elaborate elements of cost | CO2 | **5M** | |
|  | b) | State the various methods of distribution of overhead costs | CO2 | **5M** | |
|  |  | Or |  |  | |
| 5. | a) | Define breakeven point. What are the assumptions in breakeven analysis? | CO2 | **5M** | |
|  | b) | Two machines X and Y are purchased, each for Rs. 1, 50,000. The estimated life of machine is 6 years. The estimated scrap value is 25,000. Calculate the depreciation charged using Sum of year’s digits method. | CO2 | **5M** | |
| **Unit - III** | | | | | |
| 6. | a) | Describe the steps in estimation of working capital | CO3 | **5M** | |
|  | b) | Explain the modern methods of capital budgeting. | CO3 | **5M** | |
|  |  | Or |  |  | |
| 7. | a) | Write and explain the components of profit and loss account and balance sheet. | CO3 | **10M** | |
| **P.T.O.**  **18ME601**  **Unit - IV** | | | | | |
| 8. | a) | Assuming that the expected times are normally distributed; find the probability of meeting the schedule date as given for the network.   |  |  |  |  | | --- | --- | --- | --- | | Activity | Optimistic | Most likely | pessimistic | | 1-2 | 2 | 5 | 14 | | 1-3 | 9 | 12 | 15 | | 2-4 | 5 | 14 | 17 | | 3-4 | 2 | 5 | 8 | | 4-5 | 6 | 6 | 12 | | 3-5 | 8 | 17 | 20 |   Scheduled project completion date is 30 days. Also find the date which the project manager can complete the project with probability of 0.90. | CO4 | **10M** | |
|  |  | Or |  |  | |
| 9. | a) | How does the PERT technique help a Project manager in decision making? | CO4 | **5M** | |
|  | b) | Define network. Write the rules for drawing network diagram with an example. | CO4 | **5M** | |

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