

Sixth Semester B.E. Degree Examination, July/August 2022 Construction Management \& Entrepreneurship

Time: 3 hrs.
Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.

## Module-1

1 a. What is Management? Discuss the characteristics of the management.
(08 Marks)
b. The activity data of the project is tabulated below. Draw the network diagram and calculate the project duration. Also identify critical path and critical activities.

| Activity | Preceding Activity | Duration (Days) |
| :---: | :---: | :---: |
| X | - | 5 |
| Y | X | 2 |
| C | - | 6 |
| D | - | 4 |
| E | D | 7 |
| F | Y, C \& E | 3 |

c. List the advantages and limitations of barchart.
(08 Marks)

## OR

2 a. Briefly explain the functions of management in an organization.
(08 Marks)
b. Differentiate between the following plans:
(i) Directional and specific plans
(ii) Long term and short term plans.
(08 Marks)
c. List the functions/activities of construction manager.

## Module-2

3 a. What is labour productivity? Discuss the factors affecting labour productivity. (08 Marks)
b. Estimate the hourly production in bulk volume of a backhoe with bucket capacity of $0.96 \mathrm{~m}^{3}$ that is employed on excavation of a foundation, which is four meters deep in hard digging soil. The excavated earth is to be loaded in waiting dump trucks, placed at a swing angle of $75^{\circ}$. Take performance efficiency as $83 \%$ and ideal output for equivalent face shovel of bucket capacity of $0.96 \mathrm{~m}^{3}$ as 150 loose cubic meter.
(08 Marks)
c. What are the advantages of inventory control?
(04 Marks)

## OR

4 a. Enlist the factors to be considered for the selection of construction equipment.
(08 Marks)
b. Explain the process of material management in construction industry.
(08 Marks)
c. Define equipment employment cost, owing cost and operating cost. Give the relation between them.
(04 Marks)

## Module-3

5 a. Discus Total Quality Management in construction industry.
(08 Marks)
b. What are the safety measures to be taken during drilling and blasting?
c. Compare ethics and morality.

## OR

6 a. Give an account on the safety measures considered during excavation.
(08 Marks)
b. Write a note on the following:
(i) Safety campaign
(ii) Gifts and bribes
(iii) Whistle blowing.
(12 Marks)

## Module-4

7 a. Compare and contrast between the micro-economics and macroeconomics.
(08 Marks)
b. An engineer has two bids for an elevator to be installed in a new building. The details of the bids for the elevators are as follows:

| Bid | Initial Cost <br> (Rs.) | Service Life <br> (Years) | Annual O\&P Cost <br> (Rs.) |
| :---: | :---: | :---: | :---: |
| A | $4,50,000 /-$ | 15 | 27,000 |
| B | $5,40,000 /-$ | 15 | 28,500 |

Determine which bid should be accepted based on the present worth method of comparison assuming $15 \%$ interest rate, compounded annually.
(10 Marks)
c. Define the terms 'interest' and 'future worth'.
(02 Marks)

## OR

8 a. A company has to replace a present facility after 15 years at an outlay of Rs.5,00,000/It plans to deposit an equal amount at the end of every year for the next fifteen years at an interest rate of $18 \%$, compounded annually. Find the equivalent amount that must be deposited at the end of every year for the next 15 years.
(08 Marks)
b. Construct a Break Even Chart (Typical one). Show the salient features of it in the chart along with explanation.
(08 Marks)
c. What is simple and compound interest? Write interest formula for both.

## Module-5

9 a. Discuss the functions of entrepreneur.
b. Give a brief note on SISI.
c. Outline the contents of the typical project report.

## OR

10 a. Explain the different stages in the entrepreneurial process.
(08 Marks)
b. Briefly explain on KIADB.
c. Discuss the role of venture capital in setting out a business.

