Total number of printed pages: **Programme(D)/Semester/DCE611**

2024

CONSTRUCTION METHODS AND MACHINERY

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

*Answer **any five** questions.*

1. a) Explain the various stages involved in construction project. (10)

   b) Calculate the book value of equipment at the end of each year by straight line method if the cost of the equipment is Rs. 22,000. Its expected useful life is 6 years and has a salvage value of Rs. 3000. (10)

2. a) Explain the steps followed in the quality control of concrete? (5)

   b) What are the effective measures that can be taken to minimise construction accidents? (5)

   c) List out the items that govern the cost of any construction project. Explain how a proper control of these items effect the construction economy? (10)

3. a) What are the classification of construction accidents? List out the possible accidents in case of building works. (5)

   b) Distinguish between standard and special equipments. What are the factors that govern the selection of equipments? (5)

   c) Compute the average cost of the equipment if its book value on the date of purchase is Rs. 45,000. Its useful life is 7 years and it has no salvage value. (10)

4. a) What are the advantages of a systematically prepared site layout? With the help of typical site layout plan explain its important factors. (5+5)

   b) Using modified straight line method, calculate the book value of equipment at the end of each year if the equipment costs Rs. 43,000. The equipment has an expected useful life of 8 years and a salvage value of Rs. 4000. (10)

5. a) What are the uses of compressed air in construction site? Explain the two types of compressors used in construction site and draw a typical compressed air system. (10)

b) What are the three sub-categories of construction machines? What are the main factors that predetermine the proper operation of construction machines? (5+5)

6. a) Write short notes on: (5x4)

i) Construction schedule

ii) Downtime cost of equipment

iii) Obsolescence cost of equipment

iv) Average value of Equipment

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