

# CBCS SCHEME

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18CV51



## Fifth Semester B.E. Degree Examination, June/July 2023 Construction Management and Entrepreneurship

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. What are the functions of management? Explain any three of them. (08 Marks)  
b. Draw the network from the following activity and find critical path and total project duration: (08 Marks)

Activity	P	Q	R	S	T	U	V
Predecessor	-	-	P	P	Q	Q	S, T
Duration days	12	11	11	10	9	13	7

- c. Differentiate between autocrat and democrat management styles. (04 Marks)

**OR**

- 2 a. A project consists of the following activities. Draw the network diagram, calculate EST, EFT, LST, LFT,  $F_T$  and  $F_F$ . (08 Marks)

Activity	10-20	10-30	20-40	30-40	20-50	40-50
Duration (days)	13	12	2	8	15	2

- b. Explain in brief the different types of project plans used in construction industry. (08 Marks)  
c. What is work break down structure? Mention its uses. (04 Marks)

### Module-2

- 3 a. What are the factors affecting labour productivity in construction industry? Briefly explain. (08 Marks)  
b. Calculate time required to grade and finish 50 km of road formation with width equal to thrice the width of the motor grader, using six passes of the motor grader with speed for each of the successive two passes as 6 km/h, 8 m/h and 10 km/h respectively. Assume machine efficiency based on operators skill, machine characteristics and working conditions as 80%. (08 Marks)  
c. Discuss the class of labour in construction project. (04 Marks)

**OR**

- 4 a. Briefly explain the points to be considered for selection of construction equipments. (08 Marks)  
b. A company has purchased an equipment for Rs.1,50,000 with an estimated life of 10 years. The estimated salvage value of the equipment at the end of its lifetime is Rs.25,000. Determine the depreciation charge and book value at the end of various years using the declining balance method of depreciation by assuming 0.2 for K. (08 Marks)  
c. List out the functions of material management. (04 Marks)

### Module-3

- 5 a. Define quality and describe quality control and quality assurance in construction. (08 Marks)  
b. What are the safety measures to be adopted during drilling and blasting? (08 Marks)  
c. Briefly explain concepts of HSE application to construction industry. (04 Marks)

OR

- 6 a. Explain safety through legislation, safety campaign and insurances. (08 Marks)  
 b. Define morals, values and ethics. (06 Marks)  
 c. Briefly write about (i) Gifts and bribes (ii) Whistle blowing (06 Marks)

Module-4

- 7 a. What is engineering economy? Explain the principles of engineering economics. (08 Marks)  
 b. An engineer has two bids for an excavator to be installed in a new building. The details of the bids for the excavator are as follows:

Bid	Engineer's Estimate		
	Initial Cost (Rs.)	Service Life (years)	Annual Operations & Maintenance Cost (Rs.)
Company A	10,50,000	15	60,000
Company B	11,00,000	15	70,500

Determine which bid should be accepted, based on the present worth method of comparison assuming 18% interest rate, compounded annually. (12 Marks)

OR

- 8 a. Define the following terms related to engineering economics:  
 (i) Present worth (ii) Future worth (08 Marks)  
 (iii) Opportunity cost (iv) Capitalized cost  
 b. Determine the effective interest rate for a nominal annual rate of 8% that is compounded:  
 (i) Daily (ii) Monthly (iii) Quarterly (iv) Semi annually (12 Marks)

Module-5

- 9 a. Explain the function of entrepreneur. (08 Marks)  
 b. What are the objectives and MSME? (04 Marks)  
 c. Explain the role of MSME in economic development. (08 Marks)

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OR

- 10 a. Explain different types of feasibility study carried out to start business. (08 Marks)  
 b. What are the different ways to entry into international business? Explain any two ways. (08 Marks)  
 c. Write a short note on role and functions of KIADB. (04 Marks)

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