

Sixth Semester B.E./B.Tech. Degree Examination, June/July 2025

Construction Management and Entrepreneurship

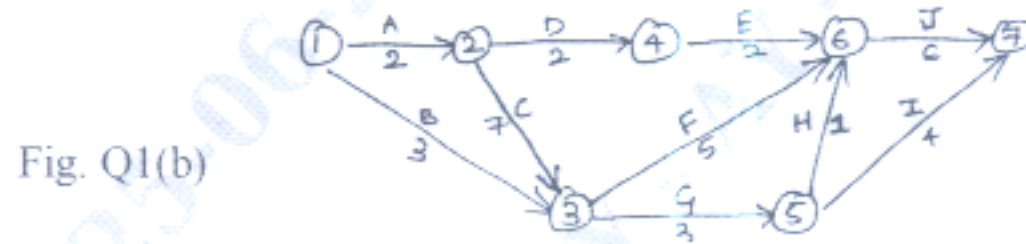
Time: 3 hrs

Max. Marks: 100

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

Module-1

- 1 a. What is Management? Discuss the different functions of management. (08 Marks)
- b. Calculate the project duration of the given network diagram and hence find critical path and critical activities. [Fig. Q.1(b)]. (08 Marks)



- c. List the advantages of bar chart. (04 Marks)

OR

- 2 a. Define Planning. Discuss the different types of it. (08 Marks)
- b. Four activities to be undertaken in series for completion of a project are as follows. Estimate the time required at 95% probability to complete work. Take probability factor (z) for 95% as +1.67. (08 Marks)

Activity	Optimistic Time	Most likely Time	Pessimistic Time
P	8	14	22
Q	7	21	32
R	8	19	28
S	28	40	52

- c. Define matrix organization along with example. (04 Marks)

Module-2

- 3 a. List the different factors affecting the labour productivity. (08 Marks)
- b. Determine the output of a bull dozer with ideal output capacity of 160 m³/hour, fitted with 'A' type blade with bucket capacity of 4.4 m³. The dozer is employed for excavating a hard clayey area with average haulage of 50 m on the ground with down slope of 10%. It has a direct drive transmission and its expected performance is 50 minutes per hour. (08 Marks)
- c. Define 'ABC' classification of materials. (04 Marks)

OR

- 4 a. List the class of labour and statutory laws concerning the labour. (08 Marks)
- b. Explain the procedure of calculating expected outcome of excavator. (08 Marks)
- c. What are the objectives of inventory control? (04 Marks)

Module-3

- 5 a. Discuss the role of TQM in construction. (08 Marks)
- b. List the safety measures to be taken during excavation with neat sketches. (08 Marks)
- c. Explain the need of ethics in engineering. (04 Marks)

OR

- 6 a. Discuss on Project Quality Management Process. (08 Marks)
 b. Explain the role of 'Health , Safety and Environment' (HSE) in construction industry. (08 Marks)
 c. Define Conflict of interest and whistle blowing. (04 Marks)

Module-4

- 7 a. A company is planning to buy a fully automated granite cutting machine. If it is purchased under downpayment, the cost of machine is Rs 16,00,000. If it is purchased under installment basis, the company has to pay 25% of the cost at the time of purchase and the remaining amount in 10 annual equal installments of Rs 2,00,000 each. Identify the best alternative for the company using the present worth method at interest rate of 18% , compounded annually. (08 Marks)
 b. Define simple interest , compound interest , cash flow diagram and interest rate. (08 Marks)
 c. Discuss the reasons for replacement of machinery in industry. (04 Marks)

OR

- 8 a. Conduct economic analysis to determine which of the two machines is attractive. The rate of return is 15%. Use the following data for analysis applying annual equivalent cost method.

Particulars	Machine 'X'	Machine 'Y'
First cost	Rs 1,50,000	Rs 2,40,000
Estimated Life	12 years	12 years
Salvage value	Rs 0	Rs 6,000
Annual maintenance cost	Rs 0	Rs 4,500

(10 Marks)

- b. A crawler tractor's purchase value is Rs 30,00,000. Its resale value is 10% of delivered price after 5 years. It is planned to operate 2000 hours per year. Calculate its annual and hourly depreciation by straight line method. (06 Marks)
 c. With the neat sketch, show the different terms associated with break – even analysis. (04 Marks)

Module-5

- 9 a. What is Entrepreneurship? Explain the characteristics of an entrepreneur. (08 Marks)
 b. Discuss the barriers for Entrepreneurship. (08 Marks)
 c. Explain the role of E – Cells at institutions. (04 Marks)

OR

- 10 a. Discuss the guidelines for preparation of project report. (10 Marks)
 b. Write a note on :
 i) Direct foreign investment and
 ii) Venture capital. (10 Marks)

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