31061 – Construction Management with MIS

UNIT 1

PART – A (2 MARK)

1. Define construction management?
2. What is meant by financial feasibility?
3. Explain about EMD?
4. Write the functions of construction management?
5. Define building economics?
6. What are the two sectors carrying out the construction project?
7. What do you understand by Technical feasibility?
8. What is meant by construction team?
9. Name the public sector organization involved in civil engineering construction project in Tamilnadu?
10. Write the objectives of planning?
11. What is meant by ecological feasibility?

PART – B (3 MARK)

1. What are the purposes of Reconnaissance survey?
2. Define contract and contract document?
3. Explain about Land acquisition?
4. What are the duties of sub contractor?
5. Define sub contract?
6. What are the types of estimate? Explain it.
7. What is EMD? Why it is collected?
8. State Preliminary survey?
9. Define tender notice?
10. What is meant by work order?
11. Define Administrative approval?
12. What is meant by termination of contract?

PART – C (10 MARK)

1. Write a short note on (i)Land acquisition (ii)Administrative approval (iii)Technical sanction
2. Explain about Earnest money deposit and Security money deposit.
3. Explain in detail the various stages of a construction project.
4. List the advantages of planning to client? (5)
5. Under what circumstances termination of contract is followed? (5)
6. Explain about duties and responsibilities of owner, consultant and contractor.
7. Define tender document. What are the information to be furnished in tender document.
8. Explain (i)Advantages of planning to client and engineer (ii)Security and acceptance of tender.
9. Explain briefly about preliminary planning?

10. What are the particulars to be furnished in a contract document?
11. Explain about different types of contract?
12. Explain about different types of construction sector?
13. What is contract agreement? What are the information given in contract agreement?

UNIT 2

PART – A (2 MARKS)

1. List the forms of business organization?
2. What is meant by Partnership?
3. Draw the organization chart of a medium construction company?
4. What is meant by work charged establishment?
5. Define decentralization?
6. Define percentage completion report?
7. What are the qualities of efficient construction manager?
8. Define sole proprietorship?
9. Define cooperative society?
10. Who will issue the building stability certificate in PWD?
11. Define DLR?
12. Who is the superior officer to executive engineer?

PART – B (3 MARKS)

1. What is meant by bill?
2. What is meant by imprest and cash book?
3. List the qualities of efficient construction manager?
4. Explain about DLR?
5. Explain work charged establishment?
6. What is work register?
7. What is meant by consumable material?
8. What is cash book?
9. Define NMR?
10. What are the uses of percentage completion report?
11. What is decentralization?
12. What is imprest cash account?
13. What are the purposes of using work register?

PART – C (10 MARK)

1. Explain about the rules for recording measurements in measurement book.
2. Explain the duties of Chief engineer and Superintending engineer.
3. Describe the various forms of business organization.
4. Write a note on (i)percentage completion report (ii)Responsibilities of Executive engineer.
5. Explain about (i)Partnership (ii)Joint stock company
6. Explain construction supervision and superintendence.
7. Explain (i)Organization setup of PWD (ii)NMR
8. What are the types of payments to contractor and explain briefly.
9. Explain (i)work charged establishment (ii)M-book
10. Explain the duties of Assistant engineer in PWD?
11. Explain briefly the procedure being followed in PWD in Tamilnadu in the preparation, checking and payment of bills for the work done.

UNIT 3

PART – A (2 MARKS)

1. Define scheduling?
2. What is an Event?
3. Draw a specimen page of material schedule?
4. What are the types of schedule?
5. Define slack?
6. What is the significance of critical path?
7. Define standard deviation?
8. Define bar chart?
9. What is meant by dummies in network?
10. Define Float?

PART – B (3 MARKS)

1. Define Resource leveling and Resource planning?
2. What is meant by crashing in time – cost analysis?
3. State the Fulckerson's rule for numbering of event?
4. Define Resource management?
5. What are the resources used in construction?
6. Define cost slope?
7. What is the need for crashing an activity?
8. Explain about material resource?
9. Define EFT?
10. What is crash time?
11. Draw the time-cost optimization curve?

PART – C (10 MARKS)

1. A project consist of following activities. The precedence relationship between the activities are as below. Draw the network and name the activities. Tabulate TE, TL and slack for each event.

Activity	1-2	2-3	2-4	3-4	3-5	4-5	5-6
Duration in weeks	3	6	9	4	8	5	4

2. Explain briefly about time-cost analysis in trade.

3. The following are the three time estimates of activities. Compute the average expected time for each activity. Draw the project network diagram. Calculate T_E, T_L and slack for each mode. Identify the critical path. What is the expected project length.

Activity	1-2	1-3	1-4	2-5	3-5	4-6	5-6
T_0 (week)	1	1	2	1	2	2	3
T_1	1	4	2	1	5	3	6
T_p	7	7	8	1	14	10	15

4. Explain (i)Dummy activity (ii)Float and slack (iii)Crash time (iv)Crash cost.

5. A project consist of following activities from A to H. The precedence relationships between the activities are as follows. A and B are starting activity. H is the end activity. C follows A. D follows A. E follows B. F follows C. G follows D and E. H follows G and F. The duration in days of various activities are A=7, B=8, C=9, D=5, E=4, F=6, G=9 and H=3. Draw the network diagram. Identify the critical path. Find the project completion time.

6. Explain (i)Resource leveling (ii)Time-cost optimization curve

7. The following table list the jobs of a network with three time estimates.

Activity	1-2	1-6	2-3	2-4	3-5	4-5	6-7	5-8	7-8
T_0 (days)	3	2	6	2	5	3	3	1	4
T_1	6	5	12	5	11	6	9	4	19
T_p	15	14	30	8	17	15	27	7	28

Draw the project network diagram. Calculate T_E, T_L and slack for each mode. Identify the critical path. What is the expected project length.

8. Explain (i)Bar chart with neat sketch (ii)Optimum utilization of resources.

9. Explain time-cost curve and the characteristics of curve with a graph.

10. Explain about classification of scheduling?

11. Explain (i)Resource planning? (ii)Cost slope and its significations?

UNIT 4
PART – A (2 MARKS)

1. What are the various factors on which the quality of work depends?
2. What are the various causes of accident?
3. Define arbitration?
4. What are the three quality assurance techniques?
5. What are elements of quality?
6. List out the different modes of settlement of disputes?
7. What do you meant by safety measurement?
8. Define sampling?
9. What is the purpose of contract labour act?

PART – B (3 MARKS)

1. Mention the categories where Dispute arises?
2. What are the aim of labour acts?
3. What is meant by Engineering ethics?
4. List the labour legislation?
5. What is meant by code of ethics?
6. State the need for labour legislation?
7. Mention the ethical issues?
8. Mention the categories of disputes?
9. Name the main provisions of Factory act?
10. Write the functions of EPF act?
11. Define engineering ethics?

PART – C (10 MARKS)

1. Explain how sampling of material is taken for testing?
2. Write a note on (i)Value based ethics (ii)Professional institutions.
3. Describe about quality assurance techniques.
4. Write about (i)Employees provident fund act (ii)Code of ethics.
5. Explain different approach to improve safety in constrction.
6. Explain about (i)Contract labour act (ii)Employees provident fund act
7. Explain about (i)Arbitration (ii)Payment of wages act
8. Explain about causes of accident?
9. Explain about Arbitration with its advantages?
10. Explain about Factories act.
11. Explain in detail the roll of three major parties in safety management?
12. Explain about (i)Factories Act (ii)Value based ethics

UNIT 5
PART – A (2 MARKS)

1. Define Entrepreneurship?
2. What are the uses of NIDCO?
3. List the concept of Entrepreneurship?
4. Define Database?
5. Name the organization involved in Entrepreneurship?
6. Define MIS?
7. Write the role of Entrepreneurship?
8. Write the important requirement of the successful Entrepreneur?
9. Expand ICICI?
10. Write the rewards in Entrepreneur activity?
11. Write the existing programs in India for Entrepreneur development?

PART – B (3 MARKS)

1. What is meant by Database approach?
2. What is meant by Financial management?
3. List the rewards for Entrepreneur?
4. Write the software package used in construction management?
5. Explain about global banking culture?
6. Write the benefits of Database approach?
7. Explain about time value of money?
8. What is meant by simulation package operations?
9. Define cash flow?
10. What are the objectives of rural banking?
11. What is robot technology?
12. Explain TANSIDCO?

PART – C (10 MARKS)

1. What is the role and significance of Entrepreneurship?
2. State the outlines of MIS?
3. Describe the role of SIS, DIC and TANSIDCO in developing entrepreneurship.
4. Briefly explain (i)construction automation (ii)IRR method of financial management
5. Calculate the NPV of a project which has the following cash flow steam. Also state whether the project is accepted or rejected?

Year	1	2	3	4	5
Cash inflow(Rs)	1,00,000	1,50,000	2,00,000	2,20,000	2,60,000

Initial investment is Rs.5,00,000. The interest rate is 10% and the discounting factors for next five years are 0.909, 0.826, 0.751, 0.683, 0.621 respectively.

6. Explain (i)Risk and rewards in Entrepreneurship (ii)Construction automation and Robotics.

7. Explain the activities of different types of bank?

8. Calculate the NPV and PI of a machine from the following data. The initial investment is Rs.50,000, duration 5 years, salvage value Rs.4,800, PV factor for 5 years 0.621 @ 10%.

Year	1	2	3	4	5
Cash inflow(Rs)	10,000	8,000	7,000	6,000	4,000
PV factor @ 10%	0.909	0.826	0.751	0.683	0.621

9. Write the requirements of an Entrepreneur? (5)

10. How computer being used in the field on construction industry?