

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI EXAMINATION – SUMMER 2025

Subject Code: 3161303

Date: 26-05-2025

Subject Name: Estimation , Specifications and Project Management

Time: 10:30 AM TO 01:00 PM

Total Marks:70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

- | | | | |
|------------|-----|--|-----------|
| Q.1 | (a) | Enlist types of shallow foundation and describe isolated sloped footing in detail. | 03 |
| | (b) | Differentiate between Long-wall Short-wall and Centre Line method. | 04 |
| | (c) | Illustrate different types of Rubble Masonry. | 07 |
| Q.2 | (a) | Give the market rates for following materials
i. Cement ii. Steel iii. Red Brick | 03 |
| | (b) | A local municipal corporation wants to construct overhead water tank with 10,00,000 litter capacity. Prepared tender notice. | 04 |
| | (c) | State the different types of contracts, explain any one in detail. | 07 |
| | | OR | |
| | (c) | State the factors affecting cot of project. | 07 |
| Q.3 | (a) | Write the essential requirement of Contract. | 03 |
| | (b) | State the objectives of estimation. | 04 |
| | (c) | Write the detail specification for 1 st class brick masonry work | 07 |
| | | OR | |
| Q.3 | (a) | Discuss the security deposit and earnest money deposit. | 03 |
| | (b) | Illustrate SOR. | 04 |
| | (c) | Write the detail specification for PCC work in 1:4:8 proportion. | 07 |
| Q.4 | (a) | Write short notes on Arbitration. | 03 |
| | (b) | Describe lump sum contract. | 04 |
| | (c) | Prepare the Rate Analysis for RCC work in 1:1.5:3 proportion. | 07 |
| | | OR | |
| Q.4 | (a) | Discuss work charge establishment. | 03 |
| | (b) | Describe unit rate contract. | 04 |
| | (c) | Prepare the Rate Analysis for single coat smooth plaster in 1:3 proportion. | 07 |
| Q.5 | (a) | State the importance of project scheduling. | 03 |
| | (b) | Illustrate project networking with example. | 04 |
| | (c) | Write short notes on Mile stone chart and Barr chart. | 07 |
| | | OR | |
| Q.5 | (a) | State the objectives of project planning. | 03 |
| | (b) | Illustrate dummy activity in project network. | 04 |
| | (c) | Write short notes on PERT and CPM. | 07 |

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2024****Subject Code:3161303****Date:20-05-2024****Subject Name:Estimation , Specifications and Project Management****Time:10:30 AM TO 01:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS
Q.1	(a) Estimate the quantity for Excavation from Figure 1.	03
	(b) Estimate the quantity for P.C.C. & R.C.C. from Figure 1.	04
	(c) Estimate the quantity for Brick masonry work and Plaster work from Figure 1.	07
Q.2	(a) Give classification of specification.	03
	(b) Explain Long wall – short wall method for Estimate by example.	04
	(c) Write Specifications of R.C.C work proportion (1:2:4).	07
	OR	
	(c) Write Specifications of excavation.	07
Q.3	(a) Enlist and explain various type of foundation	03
	(b) Write Essential requirements of contract.	04
	(c) What is Earnest money and Security deposit?	07
	OR	
Q.3	(a) Explain rubble masonry with its types in details.	03
	(b) What is Tender? What is importance of the Tender?	04
	(c) Draft out a typical tender notice to be given in local newspaper for construction of laboratory building worth RS 10,00,000.	07
Q.4	(a) Difference between Event and Activity.	03
	(b) Write Rate analysis for the Marble flooring.	04
	(c) Write Rate analysis for the RCC slab proportion (1:2:4) with steel reinforcement.	07
	OR	
Q.4	(a) What are general provisions of condition of contract?	03
	(b) Write Rate analysis for the Oil Painting.	04
	(c) Write Rate analysis for the P.C.C. proportion (1:6:12).	07
Q.5	(a) What do you mean by Preceding Activity in the project management?	03
	(b) Explain advantage and disadvantage of Network diagram for Project Management.	04
	(c) Difference between PERT and CPM.	07
	OR	
Q.5	(a) What is Project planning?	03
	(b) Explain about Bar chart for Project Management.	04
	(c) Explain four methods of project planning.	07

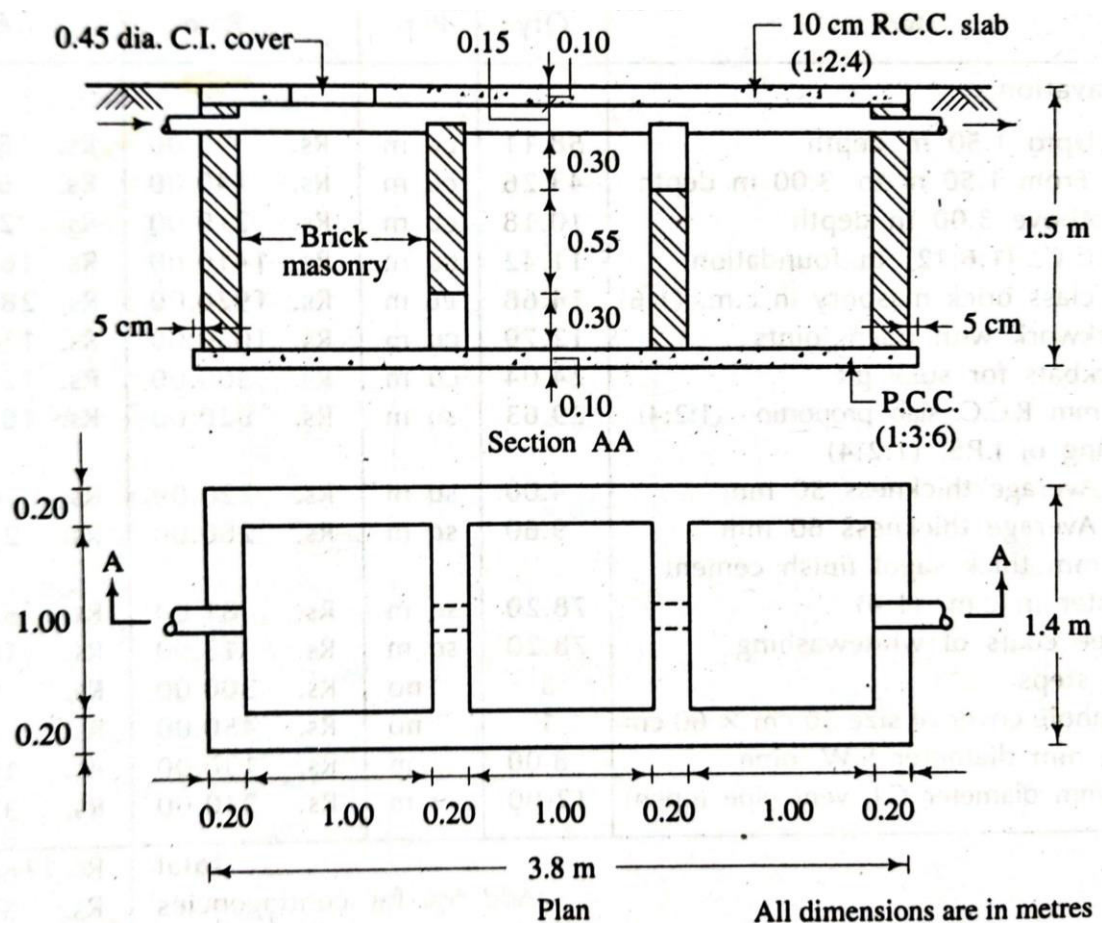


Figure 1: Section and Plan view of Septic Tank

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2023****Subject Code:3161303****Date:10-07-2023****Subject Name:Estimation , Specifications and Project Management****Time:10:30 AM TO 01:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS
Q.1	(a) Estimate the quantity for B.B.C.C. from Figure 1.	03
	(b) Estimate the quantity for Brick masonry work in septic tank from Figure 1.	04
	(c) Estimate the quantity for Excavation from Figure 1.	07
Q.2	(a) Estimate the quantity for R.C.C. Slab from Figure 1.	03
	(b) Estimate the quantity for 30 cm Brick masonry work in Soak pit from Figure 1.	04
	(c) Give classification of specification.	07
	OR	
	(c) Write Specifications of Cement-concrete work Flooring in proportion (1:2:4).	07
Q.3	(a) Describe Lump-sum Contract.	03
	(b) Explain rubble masonry with its types in details.	04
	(c) Describe Essential requirements of contract.	07
	OR	
Q.3	(a) Explain Earnest money.	03
	(b) Write purpose of foundation.	04
	(c) Draft out a typical tender notice to be given in local newspaper for construction of laboratory building worth RS 20,00,000.	07
Q.4	(a) Explain needs of Construction Management.	03
	(b) Write Rate analysis for the Excavation in ordinary soil.	04
	(c) Write Rate analysis for the 1.0 m wide RCC step proportion (1:2:4) with steel reinforcement.	07
	OR	
Q.4	(a) What do you mean by Project Management?	03
	(b) Write Rate analysis for the Whitewashing in three coats.	04
	(c) Write Rate analysis for the Brickbat Cement Concrete proportion (1:6:12) for foundation and plinth.	07
Q.5	(a) What do you mean by Project Scheduling?	03
	(b) Difference between Event and Activity.	04
	(c) From the data of table 1, create critical path bar chart.	07
	OR	
Q.5	(a) What do you mean by Mile stone chart?	03
	(b) Difference between PERT and CPM.	04
	(c) From the data of table 1, prepare the network diagram and create critical path.	07

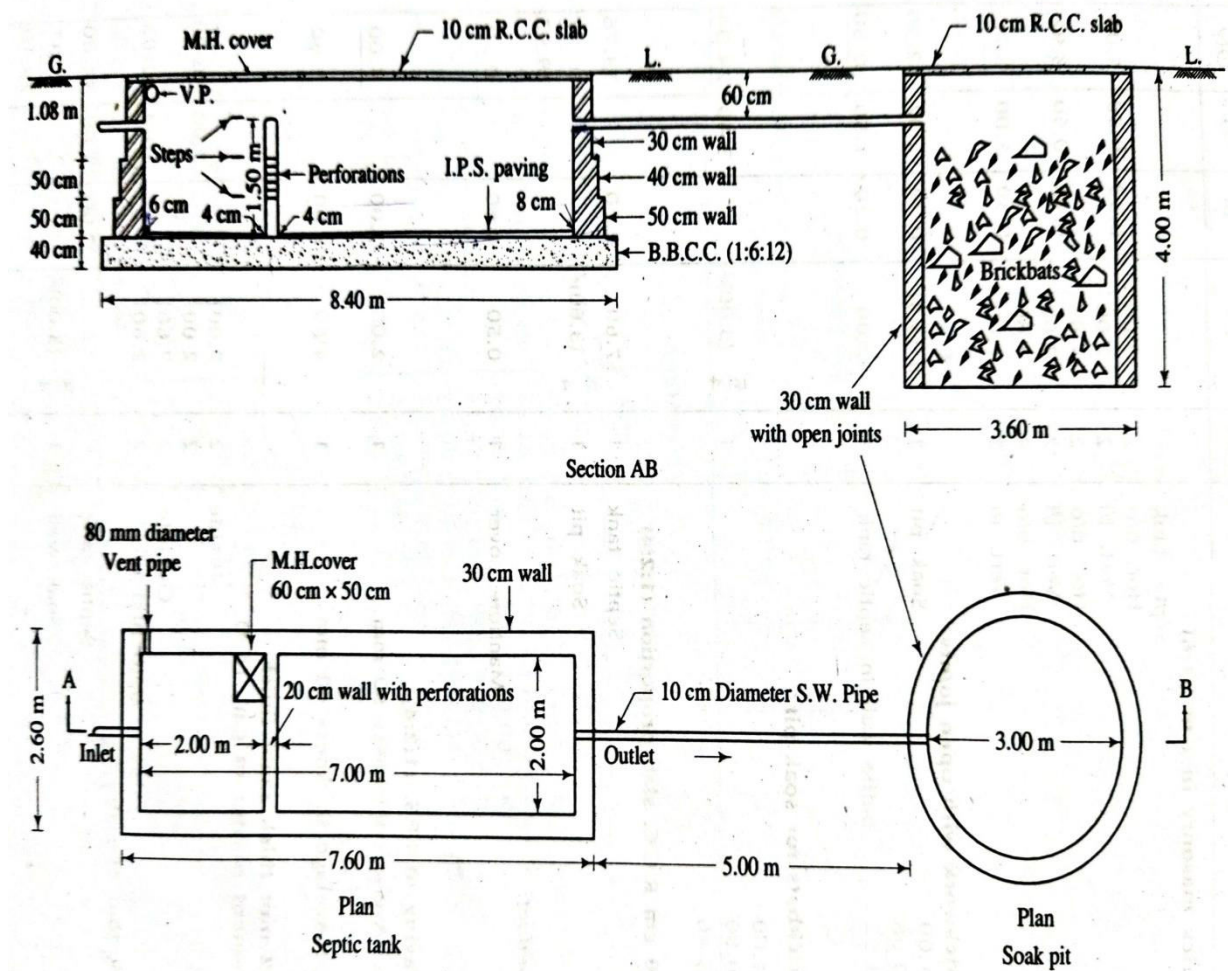


Figure 1: Section and Plan view of Septic Tank with Soak pit

Table 1: Data for Network diagram and Bar Chart

Activity	Duration in days	Preceding activity	Following activity
A	3	None	B, C
B	4	A	D
C	6	A	D, E
D	3	B,C	F
E	6	C	G
F	4	D	I
G	5	E	H,J
H	3	G	I
I	6	F,H	L
J	4	G	K
K	4	J	L
L	4	I,K	None

***** All the Best *****

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2022****Subject Code:3161303****Date:06/06/2022****Subject Name:Estimation , Specifications and Project Management****Time:10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

- Q.1** (a) Define Project Management. **03**
 (b) Differentiate between CPM & PERT. **04**
 (c) Explain center line method of estimation with suitable example. **07**
- Q.2** (a) Define Specification. **03**
 (b) Differentiate between “Earnest Money” and “Security Deposit”. **04**
 (c) Write detailed specifications of R.C.C. (1:2:4). **07**
- OR**
- (c) Prepare rate analysis for Cement concrete (1:2:4). **07**
- Q.3** (a) What do you mean by Tender? **03**
 (b) What is the importance of Project Planning? **04**
 (c) Write a short note on Arbitration. **07**
- OR**
- Q.3** (a) What do you mean by Estimation? **03**
 (b) Enlist uses of Specification. **04**
 (c) How Tender notice is prepared? **07**
- Q.4** (a) What do you mean by Bar chart? **03**
 (b) Classify Specifications. **04**
 (c) Describe Unit-rate Contract. **07**
- OR**
- Q.4** (a) What do you mean by Project Scheduling? **03**
 (b) Describe Unbalanced Tender with example. **04**
 (c) Describe Lump-sum Contract. **07**
- Q.5** (a) What do you mean by CPM? **03**
 (b) Give classification of Contracts. **04**
 (c) What are the essential requirements of a valid Contract? **07**
- OR**
- Q.5** (a) Define Rate analysis. **03**
 (b) Describe project networking technique with one example. **04**
 (c) Enlist types of Foundation and explain any one with neat sketch. **07**
