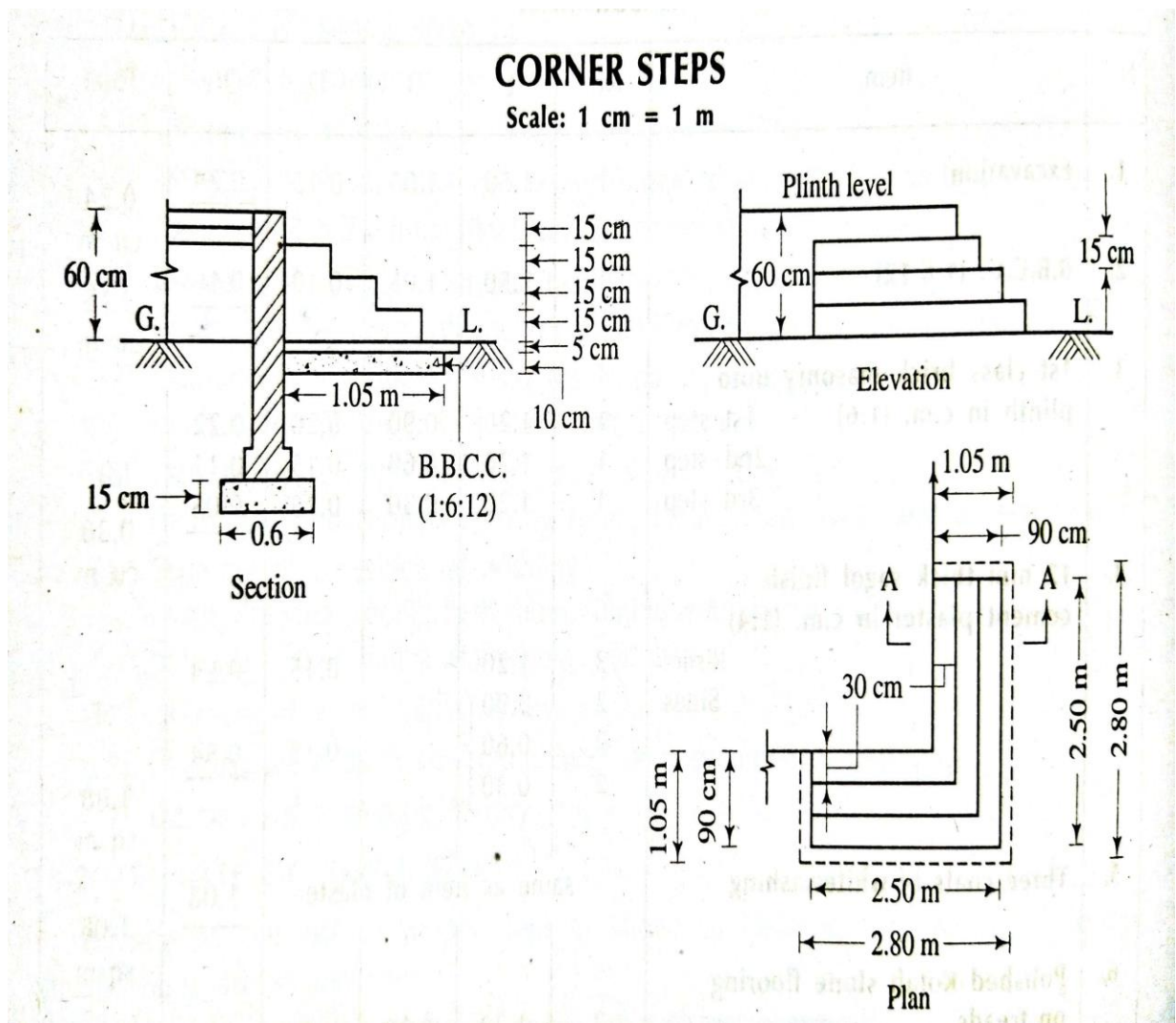


**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI (NEW) EXAMINATION – WINTER 2023****Subject Code:3161303****Date:07-12-2023****Subject Name:Estimation , Specifications and Project Management****Time:02:30 PM TO 05:00 PM****Total Marks:70****Instructions:**

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**

- |            |  |           |
|------------|--|-----------|
| <b>Q.1</b> | (a) Estimate the quantity for Excavation from Figure 1.  | <b>03</b> |
|            | (b) Estimate the quantity for B.B.C.C. from Figure 1.  | <b>04</b> |
|            | (c) Estimate the quantity for Brick masonry work and Plaster work from Figure 1.               | <b>07</b> |
| <b>Q.2</b> | (a) Estimate the quantity for Kotah stone flooring from Figure 1.                              | <b>03</b> |
|            | (b) Prepare Abstract (Cost Estimation) for the Corner step from Figure 1.                      | <b>04</b> |
|            | (c) Write Specifications of 20 mm sand faced cement plaster.                                   | <b>07</b> |
|            | <b>OR</b>  |           |
|            | (c) Write Specifications of painting in three coats.   | <b>07</b> |
| <b>Q.3</b> | (a) What is contract? What is importance of the contract?                                      | <b>03</b> |
|            | (b) Write purpose of foundation.   | <b>04</b> |
|            | (c) Explain various types of contract.   | <b>07</b> |
|            | <b>OR</b>  |           |
| <b>Q.3</b> | (a) What is unbalanced Tender?   | <b>03</b> |
|            | (b) Write brief note on subsurface investigation.  | <b>04</b> |
|            | (c) Explain three forms of Tender.   | <b>07</b> |
| <b>Q.4</b> | (a) What do you mean by Preceding Activity in the project management? Explain it with example. | <b>03</b> |
|            | (b) Write Rate analysis for the Oil Painting.  | <b>04</b> |
|            | (c) Write Rate analysis for the RCC beam proportion (1:2:4) with steel reinforcement.          | <b>07</b> |
|            | <b>OR</b>  |           |
| <b>Q.4</b> | (a) Explain factors affecting Project planning.  | <b>03</b> |
|            | (b) Write Rate analysis for the Marble flooring.   | <b>04</b> |
|            | (c) Write Rate analysis for the P.C.C. proportion (1:6:12).                                    | <b>07</b> |
| <b>Q.5</b> | (a) What do you mean by dummy activity in the project management?                              | <b>03</b> |
|            | (b) Explain advantage and disadvantage of Bar chart.   | <b>04</b> |
|            | (c) From the data of table 1, create critical path bar chart.                                  | <b>07</b> |
|            | <b>OR</b>  |           |
| <b>Q.5</b> | (a) Explain needs of Construction Management.  | <b>03</b> |
|            | (b) Explain about Network diagram for Project Management.                                      | <b>04</b> |
|            | (c) From the data of table 1, prepare the network diagram and create critical path.            | <b>07</b> |



**Figure 1: Section, Elevation and Plan view of Corner step**

**Table 1: Data for Network diagram and Bar Chart**

Activity	Duration in days	Preceding activity	Following activity
A	3	None	B, C
B	2	A	D, E
C	3	A	E
D	5	B	F
E	6	B, C	F, G
F	5	D, E	None
G	4	E	None

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