

# P P SAVANI UNIVERSITY

Fifth Semester of B. Arch. Examination

December 2022

SAAR3230 Estimation Costing & Specification

19.12.2022, Monday

Time: 01:00 p.m. To 03:00 p.m.

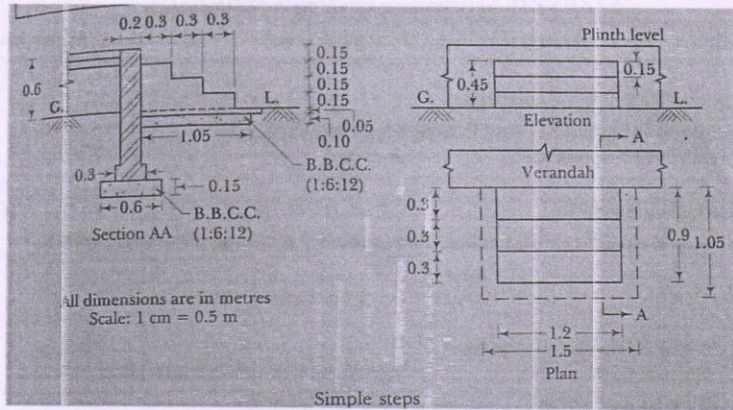
Maximum Marks: 40

## Instructions:

1. The question paper comprises of two sections.
2. Make suitable assumptions and draw neat figures wherever required.
3. Use of scientific calculator is allowed.

Q - 1	Attempt the following MCQ.	[09]	CO	BTL
i.	While estimating the quantities for the construction of a building, the correct metric unit is (a) Meter for length (b) Cu. m for area (c) Sq. m for volume (d) litter for capacity	1	1	2
ii.	The rate of an item of work depends on (a) Specifications of work (b) Specifications of materials (b) (c) Proportion of mortar (d) All of above	3	1	1
iii.	In long and short wall method of estimation, the length of long wall is the Centre-to-Centre distance between the walls and (a) breadth of the wall (b) half breadth of wall on each side (c) one fourth breadth of wall on each side (d) None of these	1	2	2
iv.	To make out an estimate for a work the following data are necessary-Drawing, Specification and _____ (a) materials (b) rates (c) labours (d) transportation	1	1	1
v.	The term _____ is used to denote a procedure of costing or valuing an item of work on the basis of actual labourers and materials required. (a) prime cost (b) hour-work (c) day-work (d) sub-work	3	1	1
vi.	_____ is required for preliminary studies of various aspects of a work or project. (a) Supplementary Estimate (b) Plinth Area Estimate (c) Revised Estimate (d) Abstract Estimate	3	1	1
vii.	For 100 sq. m cement concrete (1: 2: 4) 4 cm thick floor, the quantity of cement required, is (a) 0.94 m <sup>3</sup> (b) 1.00 m <sup>3</sup> (c) 0.98 m <sup>3</sup> (d) 0.90 m <sup>3</sup>	2	5	5
viii.	Lead and lift are the term used in (a) Earth work (b) Appropriation of funds (c) Salvage value (d) Tender notifications	3	1	1
ix.	How many bricks required in 1 m <sup>3</sup> brickwork? (a) 50 nos. (b) 5000 nos. (c) 50000nos. (d) 500nos.	2	5	5
Q - 2	Attempt any THREE of the following.	[15]		
(a)	Enlist the different types of estimates. Explain any two in detail.	1	1	1
(b)	What are the different methods of computing quantities? Explain in brief.	1	1	1
(c)	Workout the rate analysis of plain cement concrete (PCC) of proportion (1:3:6).	2	4	4
(d)	Write specifications of brickwork I class in c. m. (1:6).	2	4	4
(e)	Write detailed note on Schedule of Rate.	1	2	2
Q - 3	Attempt any THREE of the following.	[16]		
(a)	Define rate analysis and mention its purpose.	1	1	1
(b)	Prepare an estimate of simple steps as shown in fig. The general specifications are as follow: 1. The foundation concrete is to be of B.B.C.C (1:6:12)	2	4	4

2. The brickwork is of 1<sup>st</sup> class in cement mortar (1:6)]
3. The rises of steps are to be finished with 12 mm thick sagol finish cement plaster in cement mortar (1:4)
4. The trades of the steps are to be finished with polished kotah stone flooring.



- |     |  |   |   |
|-----|--|---|---|
| (c) | Write a short note on importance and use of specifications.                              | 1 | 1 |
| (d) | Workout the rate analysis of providing and laying HYSD steel reinforcement.              | 2 | 5 |
| (e) | What are the different factors should be consider while preparing a detailed estimation. | 1 | 1 |

\*\*\*\*\*

CO : Course Outcome Number

BTL : Blooms Taxonomy Level

Level of Bloom's Revised Taxonomy in Assessment

1: Remember	2: Understand	3: Apply
4: Analyze	5: Evaluate	6: Create