B.Arch. Degree VII Semester Regular Examination November 2024

AR 1702 ESTIMATION, COSTING AND SPECIFICATION
(2021 Scheme)

Time: 3 Hours   Maximum Marks: 100

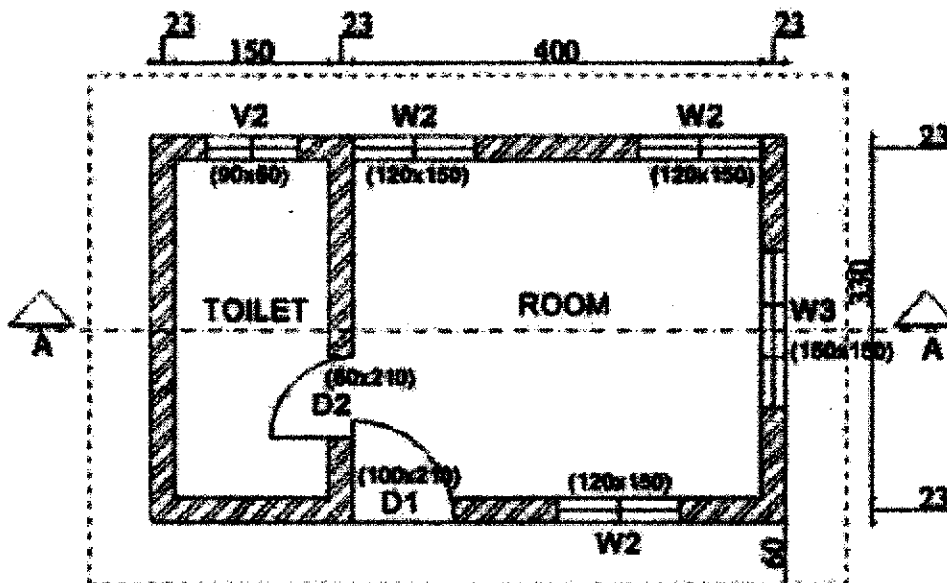## PART A
(Answer *ALL* questions)

(8 × 5 = 40)

I.   Write short notes on the following
   (a)   Purpose of estimating and costing.
   (b)   Units of measurement.
   (c)   Cubical contents method.
   (d)   Bill of quantities.
   (e)   Cost indices.
   (f)   Analysis of rates.
   (g)   Types of specifications.
   (h)   Specification for carriage and stacking of materials.

PART B

(4 × 15 = 60)

II.   Prepare an estimate of quantities for the items mentioned below, based on the drawing as shown in the following figure. Assume any appropriate data, if found necessary
   (i)   Random Rubble masonry for foundation 60 cms × 60 cms.
   (ii)   Brickwork for 3 m high wall.
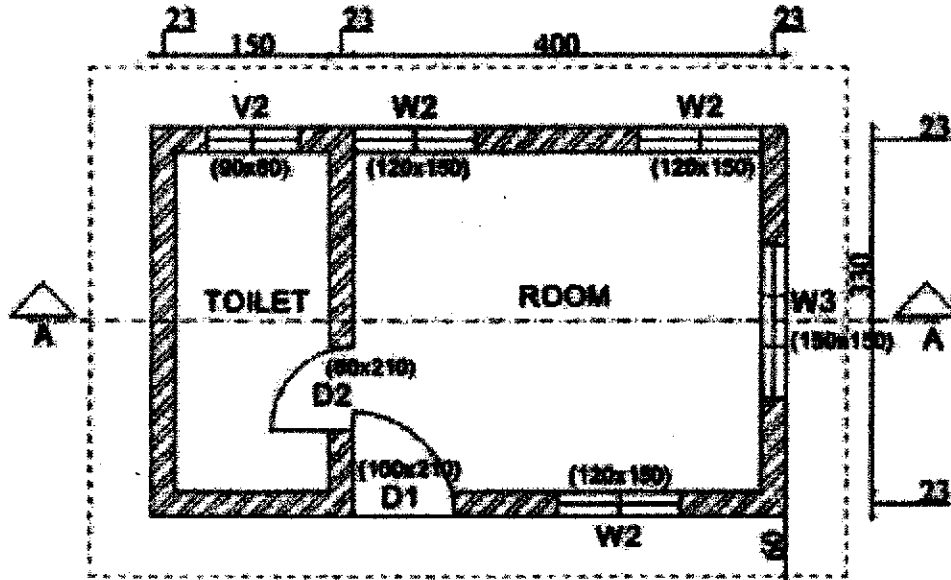   (iii)   15 cms thick Lintel beam over openings.

OR

III.   Prepare an estimate of quantities for the items mentioned below, based on the drawing as shown in the following figure. Assume any appropriate data, if found necessary.

    (i)   12cms thick RCC slab with 60cms projection over external walls.
    (ii)   Tile floor finish of all rooms.
    (iii) Exterior painting.

IV.   What is the purpose of an approximate estimate? Compare the various types of approximate estimates stating the basic differences and advantages of each.

OR

V.   What are the various types of detailed estimates? Explain the method of deriving detailed quantities for any two construction work items.

VI.   Work out the quantity of given materials required for 1:1.5:3 concrete and analyze the unit rate using the details given below.

Description	Quantity	Rate (₹)	unit
20 mm (nominal size) broken stone	?	1300.00	m^3
Sand	?	1200.00	m^3
Cement	?	5700	Tonne
Mason	0.2	900.00	each
Man	1	800.00	each
Woman	3.5	750.00	each

OR

VII.   Work out the unit rate for the following work.

Cement Concrete work, mix 1:5:10, using 40 mm broken stone.

Material	Quantity	Rate	unit
Broken stone	?	1300.00	m^3
Sand	?	1200.00	m^3
Cement	?	5700	Tonne
Mason	0.35	900.00	each
Man	1.5	800.00	each
Woman	2.5	750.00	each

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VIII.   Write detailed specification for Random Rubble (75 cm × 75 cm) in Foundation and (45 cm × 45 cm) in Plinth.

OR

IX.   Write general specification for the following items.

    (i)   PCC.

    (ii)   Plastering.

    (iii)   RCC.

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