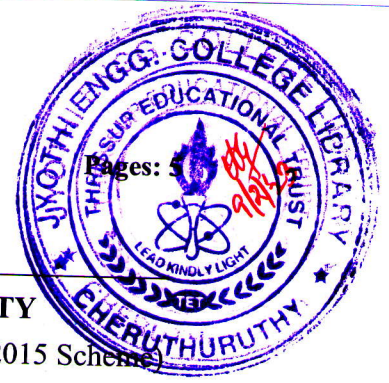E

Reg No.:_____

Name:_____

# APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
Seventh Semester B.Tech Degree (S, FE) Examination January 2023 (2015 Scheme)

**Course Code: CE409**
**Course Name: QUANTITY SURVEYING AND VALUATION**

Max. Marks: 100

Duration: 3 Hours

## PART A
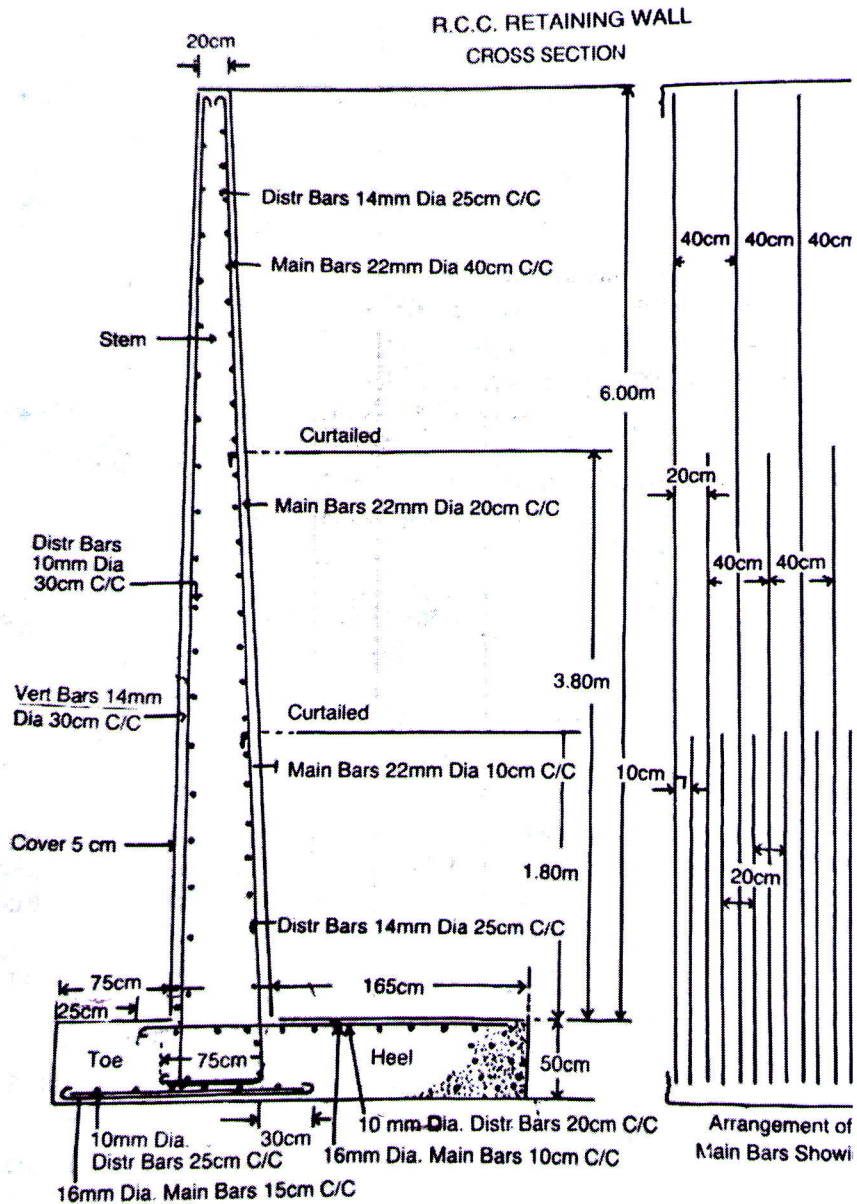*Answer any two full questions, each carries 10 marks.*

Marks

1  a)  Write the detailed specification of Damp proof course.  (10)

2  a)  Explain general specification of a first-class building.  (10)

3  a)  Analyse the rate for 1 cum cement concrete 1:2:4  (10)

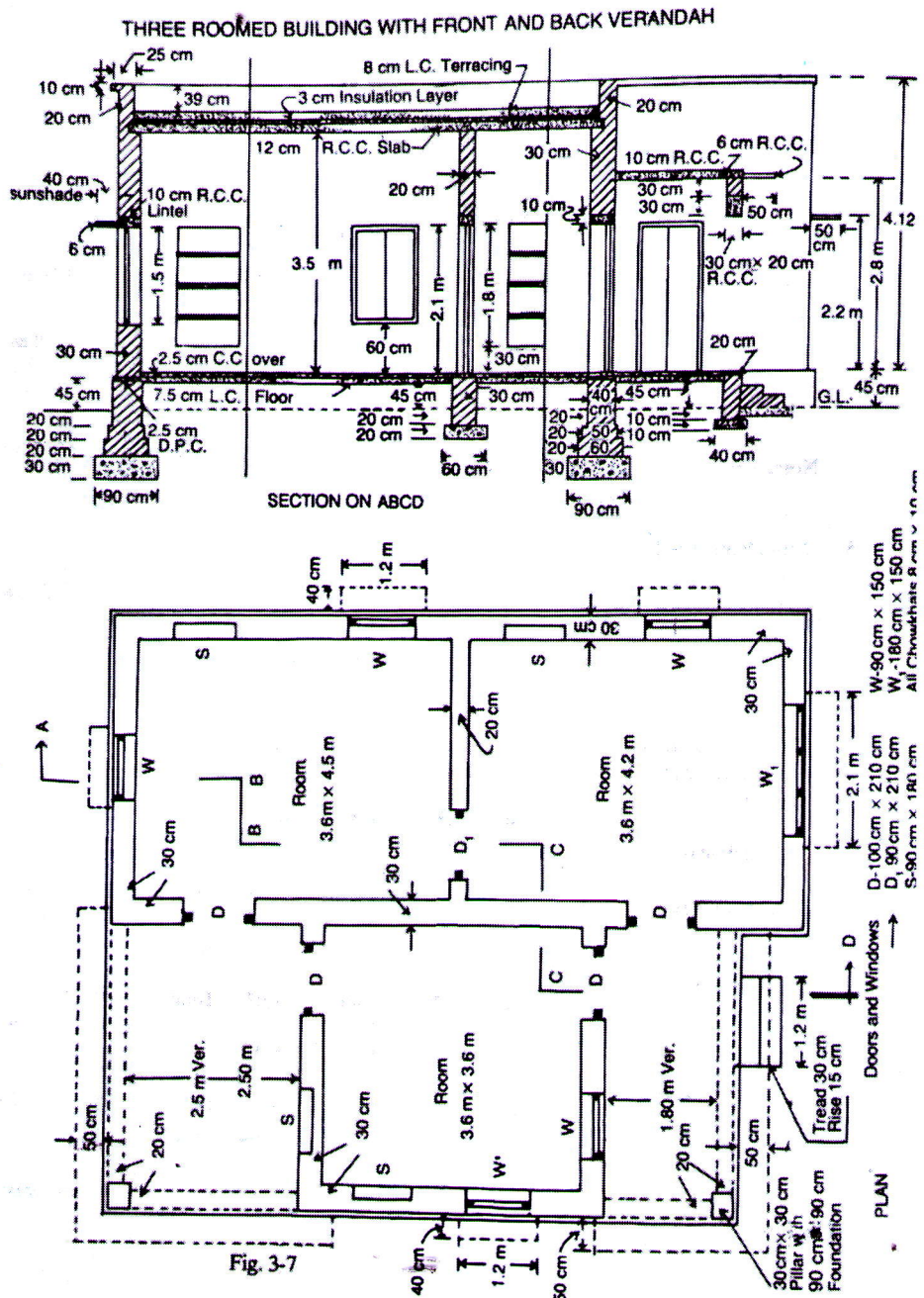| Description | Unit | Quantity | Rate | Amount |
|---|---|---|---|---|
| For 1 m$^3$ | | | | |
| MATERIAL | | | | |
| Stone ballast | m3 | | 1350 | |
| Sand coarse | m3 | | 1350 | |
| cement | ton | | 4940 | |
| LABOUR | | | | |
| Mason | day | 0.1 | 709 | |
| Beldar | day | 1.63 | 558 | |
| Bhisti | day | 0.7 | 617 | |
| Concrete Mixer | day | 0.07 | 800 | |
| Vibrator | day | 0.07 | 370 | |

## PART B
### *Answer any two full questions, each carries 25 marks.*

4  a)  Prepare bar bending schedule for the retaining wall of length 30m shown in    (25)
the figure-1 and find out the total quantity of steel reinforcement required.

R.C.C. RETAINING WALL
CROSS SECTION

20cm

Distr Bars 14mm Dia 25cm C/C

Main Bars 22mm Dia 40cm C/C

40cm | 40cm | 40cm

Stem

6.00m

Curtailed

20cm

Main Bars 22mm Dia 20cm C/C

Distr Bars
10mm Dia
30cm C/C

40cm | 40cm

Vert Bars 14mm
Dia 30cm C/C

3.80m

Curtailed

Main Bars 22mm Dia 10cm C/C    10cm

Cover 5 cm

1.80m    20cm

Distr Bars 14mm Dia 25cm C/C

75cm    165cm

25cm

Toe    75cm    Heel    50cm

10mm Dia.    30cm    10 mm Dia. Distr Bars 20cm C/C    Arrangement of
Distr Bars 25cm C/C    16mm Dia. Main Bars 10cm C/C    Main Bars Showi
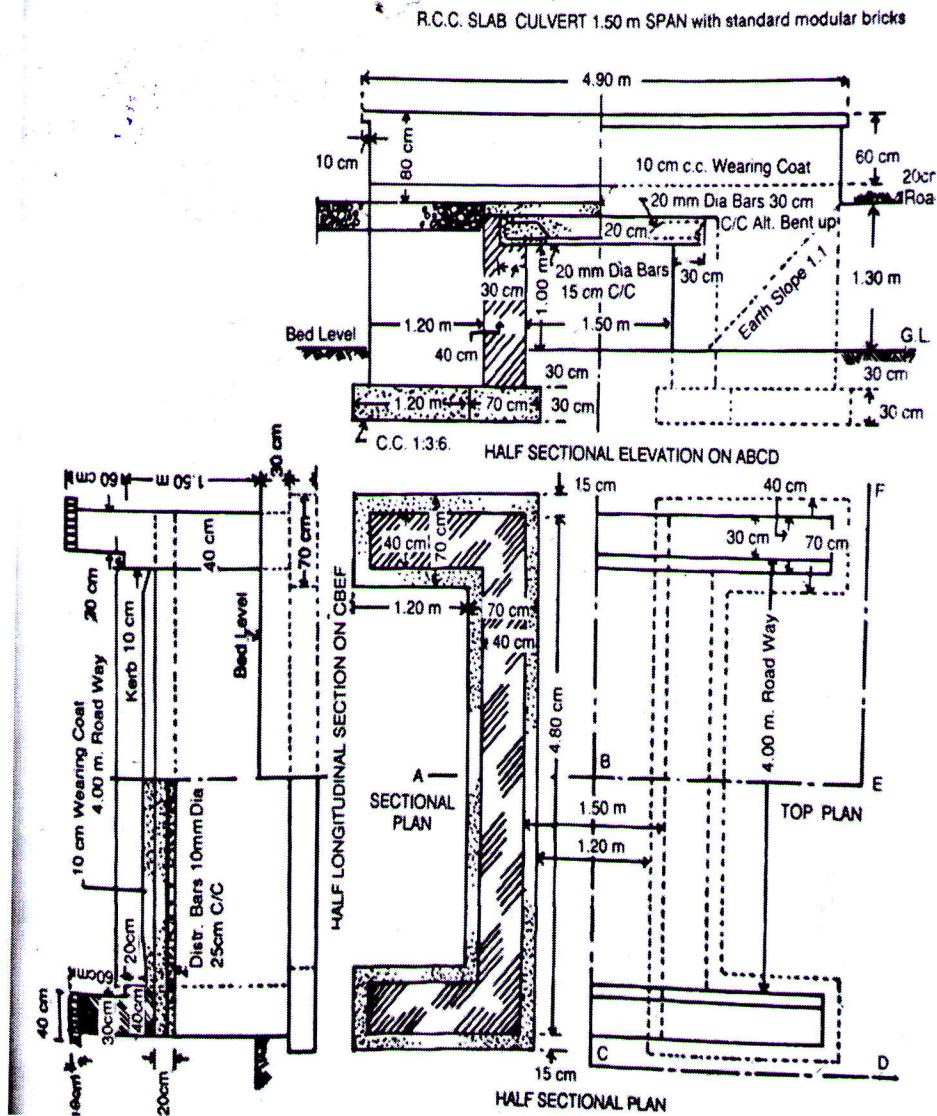
16mm Dia. Main Bars 15cm C/C

5  a)  Prepare a detailed estimate of the following items    (25)
(a) Earth work excavation (b) Foundation and basement (c) Brick work for
super structures, CM1:6 (d) RCC work for roof and sunshade

(Any missing data may be suitably assumed)

THREE ROOMED BUILDING WITH FRONT AND BACK VERANDAH



SECTION ON ABCD



PLAN

Fig. 3-7

6 a) Prepare detailed estimate for slab culvert of 1.5m span and 4m road shown (25) in figure for the following items:

i.) Earthwork, ii.)Cement concrete in foundation, iii.)Brickwork, iv.)RCC slab

(Foundation- Cement concrete 1:2:4, Brickwork in CM 1:4)

R.C.C. SLAB CULVERT 1.50 m SPAN with standard modular bricks



## PART C
### Answer any two full questions, each carries 15 marks.

7  a)  A three storied building is standing on a plot of land measuring 800sq.m .    (10)
The plinth area of each storey is 400 sq.m. The building is of RCC framed
structure and the future life may be taken as 70 years. The building  fetches
gross rent of Rs1500  per month. Workout the capitalised value    of the
property on the basis of 6% net yield. For sinking fund 3% compound
interest may be assumed. Cost of land may be taken as 40 per sq m. Assume
other data.

b)     Explain rent fixation

8 a)     A coloniser intends to purchase a land of 100,000sqm area located in the suburb of a big city to develop in to plots of 700sq.m each after providing necessary roads and parks and other amenities. The current sale price of small plots in the neighbourhood is Rs.30 per sqm. The coloniser wants net profit of 20%. Find out the maximum price of land at which the coloniser may purchase the land?

b)     Differentiate scrap value and salvage value.            (3)

9 a)     Explain different methods of valuation.            (12)

b)     How to determine the depreciation of property?            (3)

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