

Total No. of Questions : 6]

SEAT No. :

P1534

[Total No. of Pages : 2

BE/Insem/APR-152
B.E. (Civil) (Semester - II)
QUANTITY SURVEYING, CONTRACTS & TENDERS
(2015 Pattern)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates :

- 1) Answer Q.No. 1 or 2, Q.No. 3 or 4, Q. No. 5 or 6.
- 2) Use of electronic pocket calculator is allowed.
- 3) Assume suitable data, if necessary.

Q1) a) State the different types of estimates. Explain any two of them. [6]

b) Write short note on Centage charges and prime cost. [4]

OR

Q2) a) Explain bay method and cubic content method. [4]

b) Prepare an approximate estimate for a 2 storied RCC building using the following data. [6]

- i) Floor area on each floor - 200 sq.m.
- ii) Built up area - 1.2 times the floor area.
- iii) Plinth Area Rate - Rs. 1800/- per sq.m.
- iv) Work charge establishment and contingencies are 8% of the construction cost.
- v) Cost of water supply, drainage and electrification is 16% of sum total.

Q3) In a framed structure a room has clear dimensions of 5m × 4m. External walls are 200 mm thick. Clear height of room is 3.0m. Masonry is in solid cement concrete block in CM (1:8). Slab is 100 mm thick in RCC Grade (M25). The external faces of the room are plastered in CM (1:4) having thickness of 25mm in sand face plaster. Internal plaster in neeru finish has CM (1:6) and is 15mm thick, columns are placed in all 4 corners of room aligned along the longer length having dimensions of 200 × 450 mm where as the beams are

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having width of 200 mm and depth of 500 mm also in grade M25. The schedule of openings in the room are as follows :

- i) Panelled wooden door $D_1 = 2.2 \times 2.2$ m, 1 number
- ii) Flush door, $D_2 = 1.4 \times 1.8$ m, 1 number
- iii) Steel window, $W_1 = 1.2 \times 1.6$ m, 1 number fully glazed
- iv) Exhaust fan opening, 1 number having 200 mm diameter occupying full wall thickness.

The door frames, wooden are placed such that their reveal width is 100mm and flush on the internal face of wall. Neglect thickness of window frame. Assume lintel of size 200×200 mm, with beasing of 0.15m on either sides.

Determine the following quantities in the format of measurement sheet:

- a) RCC M25 for columns. [2]
- b) RCC M25 for beams. [2]
- c) Steel reinforcement in slab assuming 1% steel. [3]
- d) Concrete block Masonry in CM (1:8). [3]

OR

Q4) For the framed structure described in Q3 above determine the following quantities in the format of measurement sheet.

- a) External sand face plaster in CM (1:4) [4]
- b) Internal neeru finish plaster in CM (1:6) [4]
- c) Steel reinforcement in beam assuming 2% steel. [2]

Q5) a) State the types of specifications and explain any one. [4]

- b) Assuming suitable data, determine the quantities of materials required for 10 m^3 of M20 grade concrete. [6]

OR

Q6) a) What is task work? What is its use in rate analysis? [4]

- b) Draft a detailed specification for M20 grade of concrete for RCC slab. [6]

