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## P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

**Seventh Semester, B.E. - Civil Engineering**

**Semester End Examination; Dec. - 2015**

**Quantity Surveying and Estimation**

*Time: 3 hrs*

*Max. Marks: 100*

*Note: i) PART - A is compulsory, Answer any ONE full question from PART - B and TWO full questions from PART - C.*

*ii) Missing data may be suitably assumed.*

### PART - A

1. Fig. (1) Shows the details of a residential Building. Estimate the quantity of following items:
  - a) Quantity of each work for foundation of 30 cm wall 0.9 x 0.9 m. 10
  - b) Providing and laying P.C.C 1:4:8 for foundation of 0.15 m thick. 5
  - c) B.B.M. in C.M. 1:6 for walls of 3 m ht. 10
  - d) Teakwood doors and windows. 10
  - e) R.C.C. 1:2:4 for roofs slab 0.15 m thick. 5

### PART - B

2. Prepare a detailed cum abstract estimate of a septic tank shown in Fig. (2) for the items given below.
  - a) Earthwork in hard soil @ Rs. 150/m<sup>3</sup> 20
  - b) B.B.M. in C.M. 1:6 for walls @ Rs. 5600/m<sup>3</sup>
  - c) Precast R.C.C. slab of 10 cm thick @ Rs.6000/m<sup>3</sup>
  - d) 12 mm thick plastering in C.M. 1:3 @ Rs. 200/m<sup>2</sup>
- 3 a. Write a note on significance of specification during estimation and comment on types of specifications. 5
- b. Write a detailed technical specifications for any three of the following:
  - (i) Cement concrete for foundation
  - (ii) R.C.C. for roof 15
  - (iii) 1<sup>st</sup> class burnt brick masonry
  - (iv) Mozaic flooring work.

### PART - C

4. From the first principle carryout rate analysis for the following items:
  - (i) Cement concrete of 1:3:6 for foundation 20
  - (ii) 1<sup>st</sup> class B.B.H. in C.M. 1:6 for superstructure

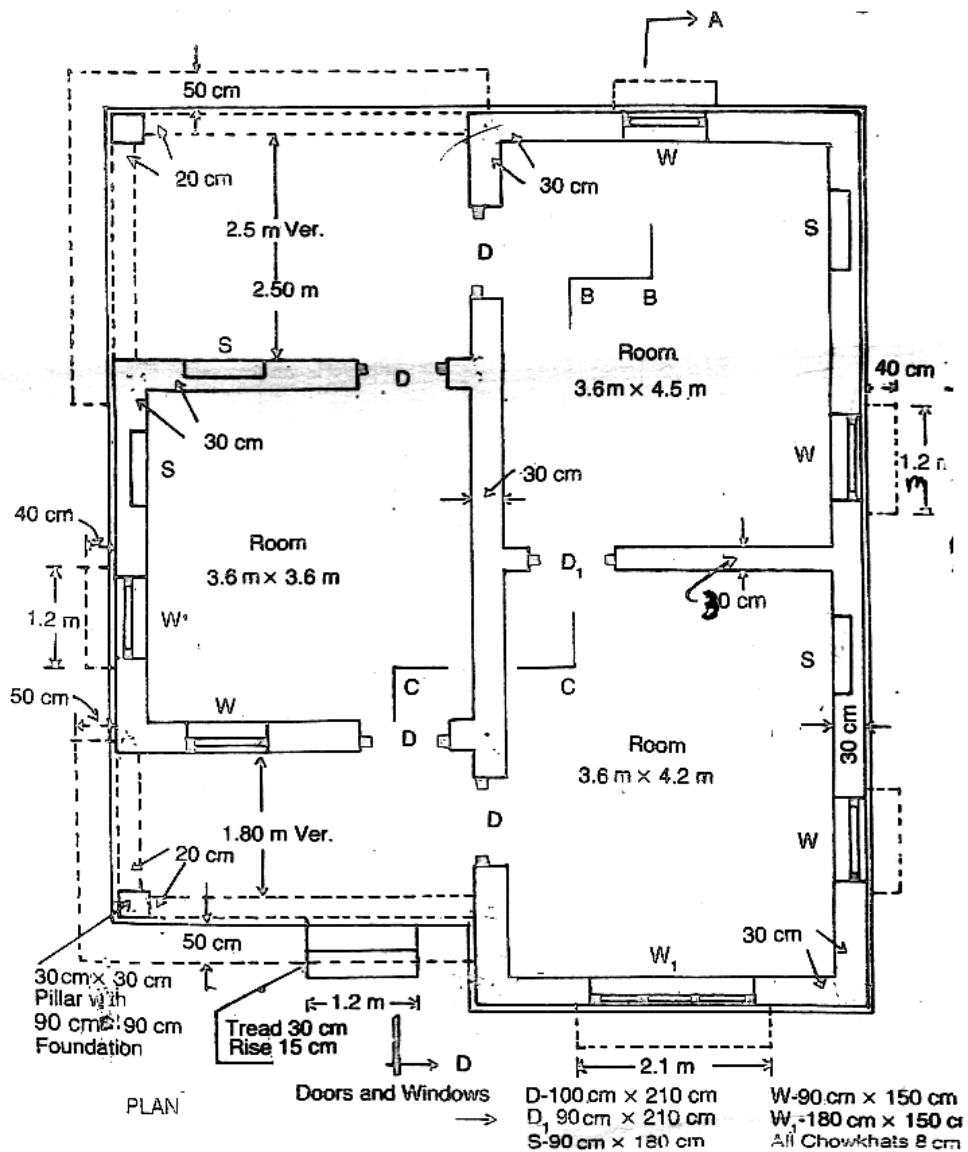
5. The following data refers to a portion of road from 14<sup>th</sup> to 18<sup>th</sup> chainage compute the quantity of earthwork with side slopes. 1:5:1 in cutting and 2:1 in banking having formation width of 10 m by trapezoidal formula method. Given chain length of 20 m.

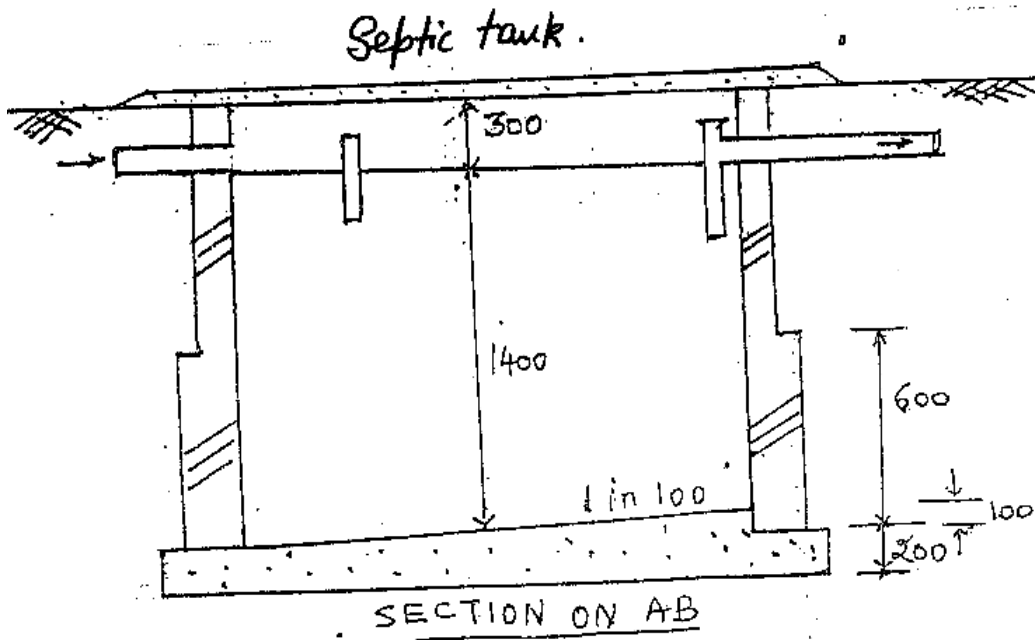
Chainage	14	15	16	17	18
R.L. of ground	58.6	59.2	58.8	58.5	57.8
R.L. of formation	58.2	58.0	57.8	57.6	57.4

6 a. Comment briefly on types of contracts.

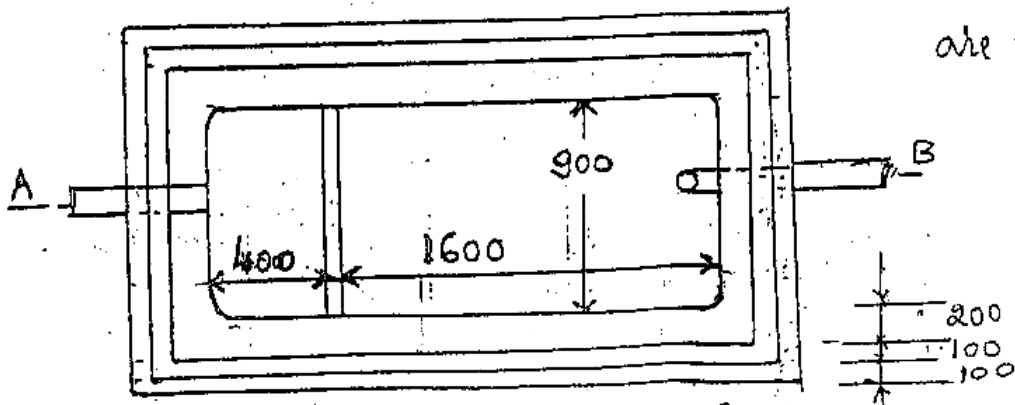
b. Write a brief note on Earnest money Deposit and security deposit.

c. Discuss Administrative approval and technical sanction.





All dimensions are in mm.



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