

- (b) Find out rate analysis for excavation in a trench for foundation. 10
7. (a) Discuss in detail procedure to fix up rates per unit of item. 10
- (b) Find out rate analysis for cement concrete 1 : 4 : 8 in foundation or floor with brick ballast 40 mm thick gauge. 10

**SECTION – D**

8. (a) Describe in detail various terms & conditions of contract which are to be formulated while inviting tender for a Civil Engg. works. 10
- (b) Explain in detail the various purposes of valuation. 10
9. (a) A first class type building is situated in sec-21 Faridabad on a land of 500 sqm. Built up portion is 25 m × 15 m. The building is complete with water supply, sanitary & electrical fitting & is 30 years old. Work out the valuation of the property. Assume suitable land rate. 10
- (b) What are different types of bills & describe any one briefly. 5
- (c) Write short note on final payment. 5

Roll No. ....

**24513**

**B. Tech. 7th Semester (Civil Engg.)**

**Examination – June, 2016**

**ESTIMATING & COSTING**

**Paper : CE-405-F**

**Time : Three Hours ] [ Maximum Marks : 100**

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** There are total nine questions. Question No. 1 is **compulsory**. Student have to attempt at least **one** question from each Sections. All questions carry equal marks.

1. (a) Describe principle of estimation. 2 × 10 = 20
- (b) List different kinds of estimates.
- (c) Explain measurement book.
- (d) What is difference between salvage and scrap value ?
- (e) Why there is necessity of specifications ?
- (f) Mention the factors affecting the analysis of rate.
- (g) What is purpose of carrying rate analysis ?
- (h) What do you understand by PWD works ?
- (i) Write down brief specifications for a first class brick.
- (j) What are different types of specifications ?

### SECTION - A

2. Fig. 1 shows a plan & section of two rooms separated by a cross-wall. Calculate the quantities of earth work in excavation, line concrete in foundation, brick masonry in foundation & brick masonry in super structure allowing two doors i.e. one door in each room, of size 1.2 m × 2.10 m & two windows in each room of sizes 0.90 m × 1.2 m. 20

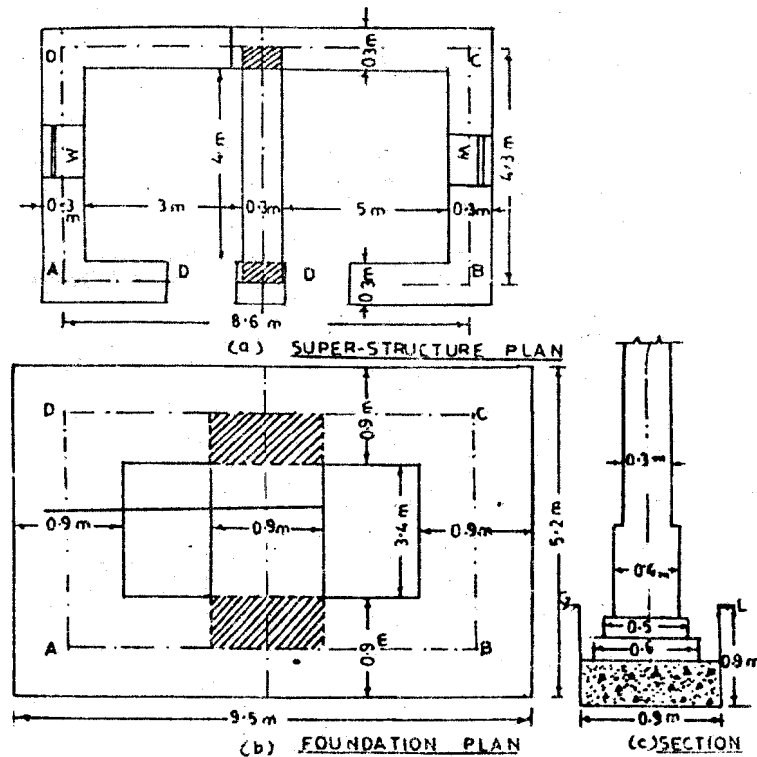


Fig. 1

3. (a) With the help of example explain the (a) centre line (b) short wall & long wall method of estimation. 10
- (b) Calculate the volume of earthwork for 100 m length of road in a uniform ground height of bank at one end is 0.75 & at other end 1.25 m. Formation width is 10 m & side slopes of embankment is 2 : 1. Ground does not have any cross slope. Calculate the volume by all three methods. 10

### SECTION - B

4. (a) Specification has an important bearing on quality of civil engineering works. Discuss importance of detailed specification. 6
- (b) Write down a detailed specification of cement concrete 1 : 2 : 4. 14
5. (a) What is specification & its objects ? Discuss the essential principles of good specification writing. 10
- (b) Write down a detailed specification of earthwork in excavation in foundation. 10

### SECTION - C

6. (a) Write down a short note on analysis of rates, discussing in detail the factors which affect it. 10