

**B. Architecture Third Year Second Semester Examination 2017 (old)**  
**Subject: Quantity Survey & Specification**

Total Time: Three hours

**Full marks: 100**

**PLEASE USE SEPARATE ANSWERS SCRIPTS FOR THE TWO PARTS**

**Part-I- 50 marks**

**Qs. no. 1 is COMPULSORY. Please answer any TWO from the rest.**

- 1 **Fill in the blanks:** (1 x 10 =10)
- One bag of OPC cement weighs \_\_\_\_\_ Kg and has a volume of \_\_\_\_\_ Cu m.
  - Concrete mix proportions are specified by \_\_\_\_\_.
  - PAR stands for \_\_\_\_\_.
  - Consistency of concrete is assessed through \_\_\_\_\_ test.
  - Formwork includes the following : \_\_\_\_\_ & \_\_\_\_\_.
  - Sand for all cement concrete work shall be \_\_\_\_\_ while that for mortars/ plasters may be \_\_\_\_\_ and for filling in plinth or foundation may be \_\_\_\_\_.
2. Write specifications for the following materials and item of works on the following (any **FOUR**): (5 x 4 =20)
- |  |                   |
|--|-------------------|
| a) Sand  | b) Lime           |
| c) First Class Brick work                          | d) Lime Terracing |
| e) Excavations of foundation & filling up trenches |                   |
3. What is meant by Cost Estimate? Mention the significance of Cost Estimate. Explain the different types of Cost Estimates? (5 +5 +10 =20)
4. a) Find the no. of bags of OPC cement to be purchased for 1 Cum of M15 Concrete as well as quantities of other materials. (5 +15 =20)  
b) Write specification for cement concrete work.
5. Consider a double storeyed residence of Plinth area 1500 Sq m and floor to floor height as 3.0 m. of RC frame structure. Prepare a preliminary cost estimate for the house making reasonable assumptions of the required information using (a). Sq.M. method and (b). Cu.M. method. (10+10 = 20)

P.T.O.

**Part-II - 50 marks**

**Answer any FIVE (10 marks each)**

With reference to the attached diagram, find out the following:

(Substantiate your calculations with sketches wherever necessary. All quantities to be provided in BOQ format. All calculations should be based on the centre line of the walls)

6. a) Centre line dimension of the walls.
6. b) Quantity of excavated soil.
7. a) Quantity of PCC in foundation
7. b) PCC under flooring
8. a) Quantity of 1<sup>st</sup> class brickwork from foundation till plinth.
8. b) Quantity of DPC
9. a) Quantity of external plaster , plaster to continue 15 cm below the ground level.
9. b) Quantity of internal plaster
10. a) Quantity of RCC in slab
10. b) RCC in lintel & chajja
11. a) Quantity of floor tiles & skirting
11. b) Quantity of roof waterproofing.

