Reg.No.									

INTERNATIONAL CENTRE FOR APPLIED SCIENCES

(Manipal University)

III SEMESTER B.S. DEGREE EXAMINATION – APRIL / MAY 2017

SUBJECT: BUILDING CONSTRUCTION-II (CE 231)

(BRANCH: CIVIL)

Tuesday, 9 May 2017

Time: 3 Hours **Max. Marks: 100**

- ✓ **Answer ANY FIVE full Questions.**
- ✓ **Missing data, if any, may be suitably assumed**

1A. Briefly explain the objectives of site investigation and describe any four methods of site exploration.

1B. Write a short notes on (i) pile foundation (ii) Shallow foundation.

1C. Define bearing capacity and allowable bearing capacity of soil. **(10+6+4)**

2A. Write explanatory note on:

(i) Reinforced brick work (ii) Partition wall

2B. Write a comparison between brick and stone masonry with points in favour of brick masonry.

2C. What would be your observations while supervising the brickwork? **(6+8+6)**

3A. Explain Queen post truss with help of a neat sketch.

3B. Write a short notes on

(i) Battened and ledged door

(ii) Framed and panelled door

(iii) Rolling shutter steel door **(10+10)**

4A. Briefly explain (i) Concrete partition wall (ii) Glass partition wall (iii) Asbestos sheet partition Wall.

4B. Design a dog legged stair for a building in which the vertical distance between the floors is 3.6m. The stair hall measures 2.5m X 5m.Draw Plan and elevation for the same.

(10+10)

5A. With help of neat sketch explain (i) Glass flooring (ii) PVC flooring (iii) Linoleum flooring.

5B. Write a short notes on

a) Solid masonry wall
b) Cavity wall
c) Faced wall
d) Veneered wall **(12+8)**

6A. Mention the requirements of a good plaster.

6B. What is pointing? How is it carried out? Mention its different types?

6C. Write short notes on (i) Rough cast finish (ii) Pebble dash finish (iii) scrapped finish

(5+6+9)

7A. Explain what is meant by the term shoring and mention its types.

7B. List out the effects of dampness in any construction work.

7C. With help of neat sketch explain (i) Racking shore (ii) Independent scaffolding

(5+6+9)

8A. Estimate by center line method the quantities of the following items of a two roomed building from the given plan and section (Fig.1 (a) and(b)).

(i) Earth work in excavation of foundation

(ii) Lime concrete in foundation,

(iii) 2.5cm C.C. damp proof course

(All walls are of same section lintels over doors. Windows and shelves are 15cm thick. Doors D- 1.2mX21.0m, Window W- 1mX1.5m, Shelves 1m X1.5m)

8B. Calculate the quantities of various materials required for $10m^3$ of following items of work:

i) 1^{st} class brickwork in foundation and plinth with 20 cm **X**10 cm**X**10 cm (nominal size) bricks with cement sand mortar 1:6 – unit $1m^3$

ii) 1^{st} class brickwork in super structure with 20 cm **X**10 cm**X**10 cm (nominal size) brick with cement sand mortar 1:6 – unit $1m^3$. **(12+8)**

TWO ROOMED BUILDING

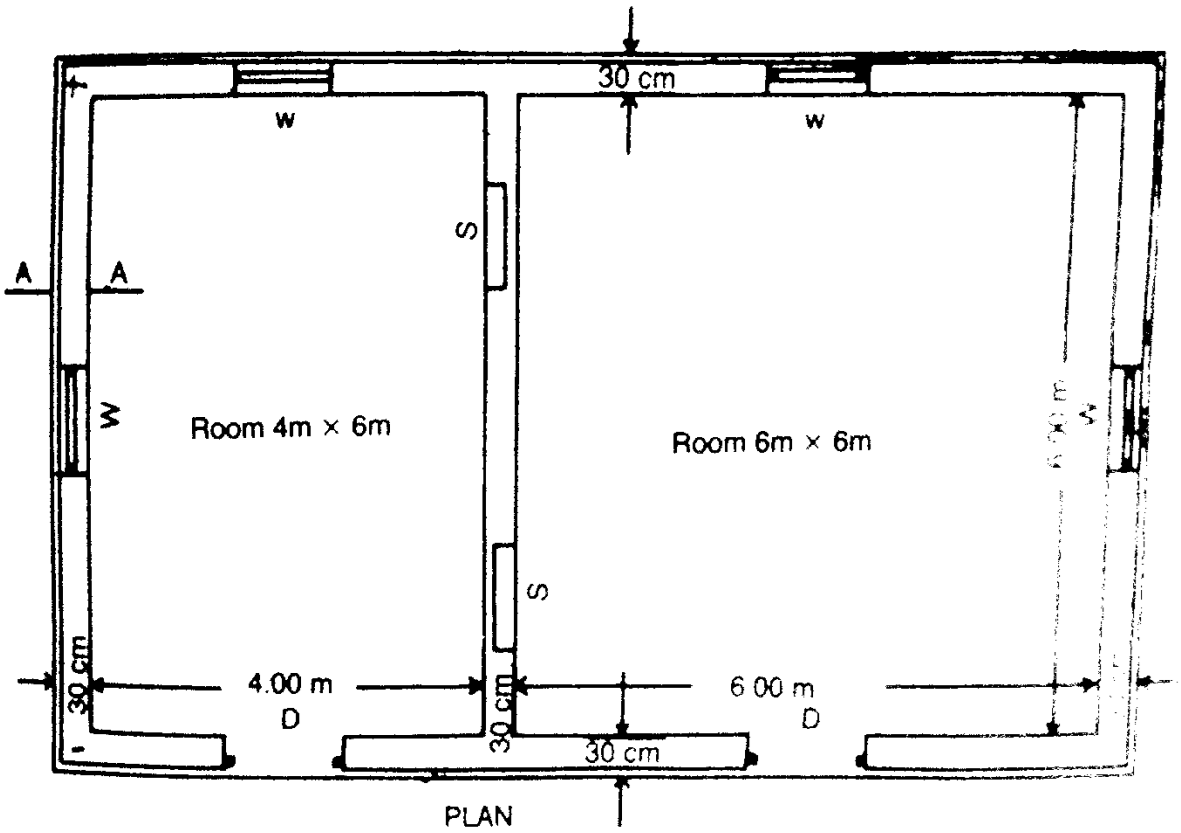

Figure.1(a)

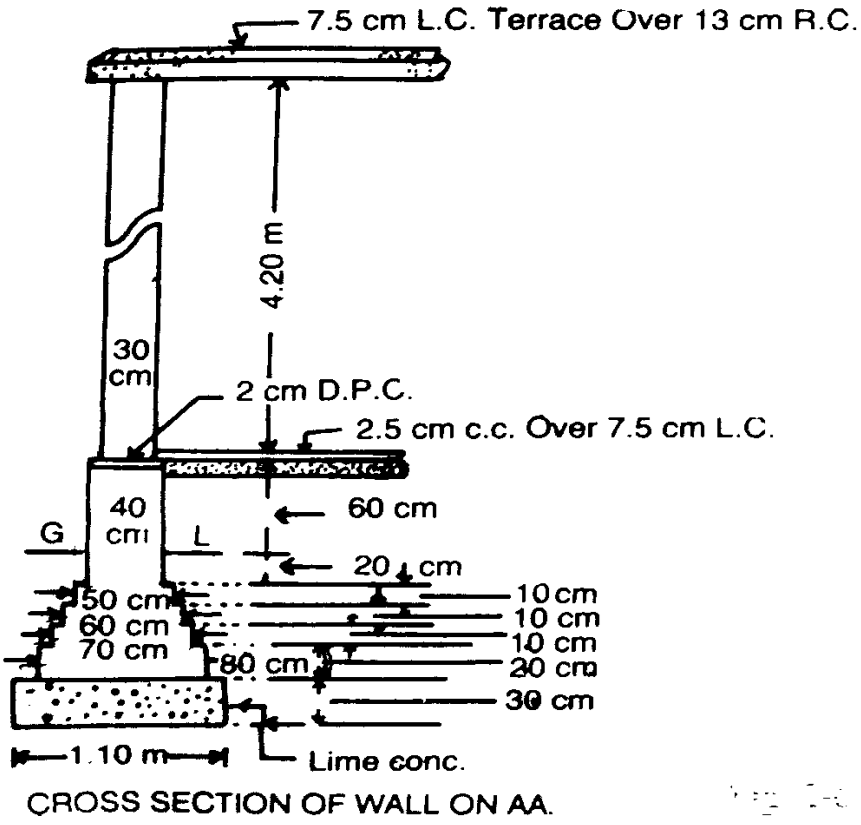

Figure.1 (b)