Printed Pages: 3 **AR-602**

(Following Paper ID and Roll No. to be filled in your Answer Books)	
Paper ID : 181602	**Roll No.**

B. Arch.

Theory Examination (Semester-VI) 2015-16

CONSTRUCTION & MATERIALS-VI

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

Note : i. Attempt all the questions.

ii. Use only 1 cartridge sheet for drawing.

iii. In case of numerical problems assume suitable data wherever not provided.

1. Write short notes on any two of the following:

   a. Uses of any three non-ferrous metals.

   b. Ceramics in construction field.

   c. Thermosetting plastics.

   d. Thermoplastics. (2×10=20)

2. Differentiate between the following:

(Attempt any Two)

a. Collapsible shutter and rolling shutter.

b. Shuttering and scaffolding.

c. Combined footing and eccentric footing.

d. One way slab and two way RCC slab. (2×10=20)

3. Draw neat sketches on proper scale of any two:

a. Timber form work for an octagonal column.

b. Centering of semi-circular arch with a span of 1200mm.

c. A typical section of raft foundation.

d. Foundation of an isolated column. (2×10=20)

4. A five storeyed RCC framed building has to be constructed on an old tank bed with loose soil over 12m deep and water logged up to 1.2 m form ground level. What type of foundation would you adopt? Explain in detail the process of constructing out such a foundation on suitable scale.

OR

A hall of clear size 8000mm (long) x 6000mm (wide) x 3000mm (High) proposed in a basement. Which is 1800mm below the ground level. The hall has a R.C.C column of size 300mmx 300mm. placed in the centre and 345 mm thick brickwork for peripheral wails. The basement is connected to upper ground floor by a staircase.

You are required to draw the following:

a. Sectional plan of the hall with a stair connecting the basement to upper ground floor to a scale of 1:50.

b. Cross-section of the hall. Showing vertical and horizontal damp proof courses on peripheral walls-to a scale of 1:20.

c. Cross-section through R.C.C. column, showing details of damp proofing measures adopted in the foundation -to a suitable scale. (1×40=40)