

# CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

15ARC72

## Seventh Semester B.Arch. Degree Examination, Aug./Sept. 2020 Materials and Methods in Building Construction – VII

Time: 4 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 List the properties and uses of the following materials.  
a) Plywood  
b) Particle board  
c) Block board  
d) Wood wool. (20 Marks)

OR

- 2 Design a wardrobe of size 2.4m × 2.1m high with 600 deep and accommodate dressing also as part of wardrobe.  
i) Plan, section and elevation (Internal) to scale 1:20 (12 Marks)  
ii) Any two details. (08 Marks)

### Module-2

- 3 Design a Kitchen of size 4m × 3m with height of 3m. Assuming a window of 1.2m wide on the 3m side wall. With a sill of 900mm. Draw the following :  
i) The plan (04 Marks)  
ii) Elevation (08 Marks)  
iii) Section (04 Marks)  
iv) Detail. (04 Marks)

OR

- 4 Design an office space of 8m × 12m with 6 work stations and 3 cabins and fitting cabinets and other necessary furniture. Entrance from the shorter side. Draw the  
a. Plan and furniture layout (08 Marks)  
b. Details of cabins with elevation and section (08 Marks)  
c. Details of the partition. (04 Marks)

### Module-3

- 5 A false ceiling to be designed for an office space of 5m × 7m. Choose the system ideal for office space.  
Detail the following :  
a) Reflected ceiling plan to scale (1:20) (08 Marks)  
b) Section and blown up section (08 Marks)  
c) Concealed light fixture detail. (04 Marks)

OR

- 6 Explain with sketches pre-stressing construction. Detail of the following :  
a) Prestressed Beam and slab connection (10 Marks)  
b) prestressed Beam and to column connection. (10 Marks)

**Module-4**

- 7 a. Explain when deep foundations are used. (05 Marks)  
b. What are the types of mat foundation? Explain through sketches. (15 Marks)

**OR**

- 8 List the advantages of the following : (20 Marks)  
a) Timber piles  
b) Precast concrete piles  
c) C art Insitu – concrete piles.

**Module-5**

- 9 Write short notes on : (10 Marks)  
a) CAD/CAM Technology (10 Marks)  
b) Prefabrication in India.

**OR**

- 10 a. List the advantages of Bamboo as a Building material. (06 Marks)  
b. with sketches, explain the following : (07 Marks)  
i) Bamboo Flooring (07 Marks)  
ii) Bamboo walls.

\*\*\*\*\*