

FOURTH YEAR B.Arch. DEGREE EXAMINATION, APRIL / MAY 2005**Paper—BUILDING MATERIALS & CONSTRUCTION—IV**

(1998 Scheme)

Time : Four Hours

Maximum : 100 Marks

Drawing sheet will be supplied.

Answers should be brief and to the points.

Sketches will be duly credited

Answer All questions.

I. Write short note on any five of the following :—

- (a) Hollow concrete block.
- (b) Pre-cast concrete construction.
- (c) Cost effective building technology.
- (d) Joint between R.C.C column and steel truss.
- (e) Importance of correct service plan for buildings.
- (f) Principle of air-conditioning.
- (g) Aims and objectives of building maintenance.
- (h) Solid concrete slab flooring.

(5 × 5 = 25 marks)

2. a) Explain the meaning of alternative building materials for construction work. Discuss the traditional materials and alternatives for partition work. Discuss the advantages and disadvantages of alternative material for partition work. Explain with neat sketches the construction details of partitions with any one of the alternative materials.

Or

- b) Prepare and draw the service plan for a primary health center with the following details.
- (i) Water supply lay out
 - (ii) Sewage disposal
 - (iii) Waste water disposal
 - (iv) Storm water removal
 - (v) Drainage works

Assume any other data required.

(30 marks)

Turn over

3. a) Sketch the layout map for a central air conditioning system for an auditorium 3000 person's capacity and all other modern facilities.

Or

- b) What are the objectives of air conditioning ? Discuss the term comfort zone. Discuss the environmental impact of air conditioning.

(15 marks)

4. a) What are the solid wastes in municipal areas ? Suggest and explain any one method of solid waste disposal.

Or

- b) What are the causes of dampness in buildings ? List the bad effects of dampness in buildings. Discuss the quality of building materials in damp prevention.

(15 marks)

5. a) Discuss the causes for deterioration of building components. Suggest preventive measures.

Or

- b) Briefly discuss the modes of failure and methods of repairing concrete construction.

(15 marks)