## B.Arch Part-IV 8th Semester Examination, 2007

## Housing-II (AR-803)

Time: 3 hours Full Marks: 100

## Answer any SIX questions. Answer should be well illustrated. Four(4) marks are reserved for neatness.

- 1. i) Explain the terms:
  - Housing Need; Housing Demand; Housing Shortage; Housing Value.
  - ii) Calculate the Housing Need of a settlement after 20 years from the following data:
    - a) present population 1,62,000
    - b) present popn. growth rate 1.5 percent per annum (compound)
    - c) Av. household size 4.5
    - d) Estimated household size 4.0
    - e) Rate of obsolescence of housing stock 2.5 percent per annum (compound) (Assume all other data, if at all necessary) [8+8]
- 2. i) Define HFI and state their basic objectives.
  - ii) How they differ from any NBFC?
  - iii) Calculate the EMI for a housing loan of 5.2 lakhs rupees when the rate of interest (cummulative) is 10.5 percent per annum and loan is repayable within 20 years. [8+2+6]
- 3. i) State the goal and objectives of the 'National Housing & Habitat Policy 1998'. How the governments want to create an 'Enabling' environment?
  - ii) What Housing Board like organization should do in this regard? [8+8]
- i) Expand the terms : NHB, NCHF, HUDCO, BMTPC
  - ii) Write brief notes (within 300 words) on <u>any two</u> of the above organizations.

 $[4+6\times2]$ 

- 5. i) Explain the terms:
  - Natural Disaster; Natural Hazard Prone Areas (NHPA); Vulnerability.
  - ii) Draw three (3) most suitable configuration of Hostel Building Plans (indicating permissible length: bredth ratio) in type III earth quake prone areas of India.

[7+9]

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6.	i)	Differentiate between a Tenant Ownership Housing Society and a Tenan Co-partnership Housing Society.
	ii)	Explain the key Advantages of a Housing Society in the context of Europe and India.
	iii)	'Condominium' falls within which type of Housing Society? [8+6+2
7.	Wr	ite short notes with neat sketches (any five):
	i)	Pre-cast Concrete Panel Wall Units
	ii)	R.C. Filler Slabs
	iii)	Hyperbolic Paraboloid Shell as footing
	iv)	R.C. Brick panel
	v)	Hollow Concrete Blocks
	vi)	Rat-trap Bond.
8.	vi) Ra Briefly i) WI ii) WI iii) WI iv) WI	efly answer the following (any eight): [8×2]
	i)	What is the composition of FLG Blocks?
	ii)	What is Red Mud?
	iii)	What is the compressive strength of Adobes?
	iv)	Why 'partial pre-fabrication' is adopted in India?
	v)	Define a Basic Module.
	vi)	Expand the term F.M.O.C.
	vii)	What is 'SFS' Housing?
	viii	) What is 'PPP' in Housing?
	ix)	Define a 'Census House'.
	x)	What is '5 mm Rule'?
	xi)	How thatch roofing could be made more fire resistant?
	xii)	Can load bearing structures be made with 'Ekra Wall'?
9.	i)	What is a 'Green Building'? Why they are more sustainable?
	ii)	What is the 'LEED' rating? How much weight they attach to different aspect
		of a building? [8+8]
10.	Wri	te a 500 word Essay on <u>any one</u> of the following topic: [16]
	i)	Indira Awaas Yojana iv) Night Shelter Scheme
	ii)	IHSDP v) Rural Housing Policy
	iii)	JNNURM vi) Building Material Reuse