

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: B.ARCH
BRANCH: ARCHITECTURE**

**SEMESTER : VII/ADD
SESSION: MO/2023**

SUBJECT: AR401 HOUSING & SETTLEMENT SYSTEMS

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

			CO	BL														
Q.1(a)	Discuss the evolution of housing policies in India post-independence.	[5]	2	1														
Q.1(b)	City A is a new and developing city, with a population of 8,58,638 in 2021. Calculate the projected population in 2051 if the decadal population is	[5]	4	3														
	<table><tr><th>Year</th><th>Population</th></tr><tr><td>1961</td><td>93,325</td></tr><tr><td>1971</td><td>1,56,529</td></tr><tr><td>1981</td><td>2,09,446</td></tr><tr><td>1991</td><td>3,32,253</td></tr><tr><td>2001</td><td>5,21,763</td></tr><tr><td>2011</td><td>6,59,334</td></tr></table>	Year	Population	1961	93,325	1971	1,56,529	1981	2,09,446	1991	3,32,253	2001	5,21,763	2011	6,59,334			
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Q.2(a)	Define neighborhood. Discuss the neighbourhood model proposed by C.A. Perry with a suitable diagram.	[5]	1	2														
Q.2(b)	For District X, if the Net migration rate is 264, the number of emigrants is 1,56,897 in 2023, with a mid-year population of 13,46,583. Calculate the number of immigrants.	[5]	5	3														
Q.3(a)	Define slums. Discuss the various types of slum categorisation in India.	[5]	3	1														
Q.3(b)	Write short notes on (i) PMAY (ii) RAY	[2.5+2.5]	2	1														
Q.4(a)	(i) For a neighbourhood of 6 square kilometres, the commercial, institutional, green spaces, and road comprise 3%, 5%, 20% and 10%, respectively. The net population density is 750P/Acre. Calculate the total population of the neighbourhood and its gross population density. (ii) For a group housing project, if the plot size is 20 X 30 m, the permitted ground coverage is 40%, and the FAR is 1.5. Calculate the maximum number of floors permitted if the developer utilises 1/3 rd of the permitted ground coverage.	[3+2]	5	3														
Q.4(b)	Discuss any three models of public-private partnership for affordable housing in India.	[5]	3	2														
Q.5(a)	Write short notes on (i) AMRUT (ii) NULM	[2.5+2.5]	2	1														
Q.5(b)	Enumerate the permissible, restricted and non-permissible uses for Commercial and Institutional land uses.	[5]	3	2														