

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(MID SEMESTER EXAMINATION MO/2025)**

**CLASS:** B. Arch  
**BRANCH:** ARCHITECTURE

**SEMESTER:** IX  
**SESSION :** MO/2025

**SUBJECT:** AR605 URBAN ECOLOGY AND ENVIRONMENTAL PLANNING  
**TIME:** 02 Hours

**FULL MARKS:** 25

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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		<b>CO</b>	<b>BL</b>
Q.1(a)	Discuss the relevance and significance of the course 'Urban Ecology and Environmental Planning' in the architectural curriculum.	[2] 1	Understand, Analyse
Q.1(b)	According to you which is the biggest environmental crisis that we are currently experiencing. List the concerns and the contributing factors of the same.	[3] 1,2	Understand, Analyse
Q.2(a)	The hydrological cycle has been significantly impacted by the current state of urbanisation. Give a suitable graphical representation of the before and after scenario of how the natural hydrological cycle has been altered due to urbanisation. Also present a brief discussion about this change and the likely impacts of it.	[2] 1	Understand, Analyse
Q.2(b)	Discuss why there is a significant need to associate the term ecology to urban built systems.	[3] 1,2,3	Understand, Evaluate, Analyse
Q.3(a)	Discuss the challenges of applying the ecosystem approach to cities.	[2] 1,2	Understand, Analyse
Q.3(b)	With the help of a graphical illustration show the input and output relation that exists within an urban system and briefly discuss it.	[3] 1,2	Understand, Analyse
Q.4(a)	Transportation systems have been the determinants of the development of a city's form. List the various 'Sustainable Transportation Principles' that have been adopted by cities across the world to check and address the arising environmental issues and concerns.	[2] 1,2	Understand, Analyse
Q.4(b)	What do you understand by the term 'Urban Metabolism'? Discuss the relevance of the term and list the various methods of assessing Urban Metabolism. Discuss any one briefly.	[3] 1,2	Understand, Analyse
Q.5(a)	Differentiate between the 'Green agenda' and 'Brown agenda' problems that are linked to the idea of urban sustainability	[2] 1	Understand, Analyse
Q.5(b)	Man-Environment relationships are perceived and evaluated in a variety of ways and approaches. List them and discuss any one in detail.	[3] 1,2,3	Understand, Analyse

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