CLASS:       MUP                                                      SEMESTER: I
BRANCH:      MUP                                                      SESSION: MO/2022

**SUBJECT: AR605 – URBAN ECOLOGY AND ENVIRONMENTAL PLANNING**
TIME:        03 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*. **Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates**

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| Q.1(a) | Explain the landscape structure 'patch' with one example. | [2] |
| Q.1(b) | What kind of work is included in 'screening' in an environmental impact assessment (EIA)? | [3] |
| Q.1(c) | Describe the scale challenge 'mismatch' using an example of your choice. | [5] |
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| Q.2(a) | Explain with a diagram and an example, the difference between dissection and perforation as impacts to a landscape. | [2] |
| Q.2(b) | Which type of species should we use in vegetation – native or exotic, and why? | [3] |
| Q.2(c) | You have studied that thematic maps are one of the ways to convey crucial information about a site. What is the usefulness of a buffer distance through a thematic map in the context of patches of forested lands? | [5] |
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| Q.3(a) | What are ecosystem services? | [2] |
| Q.3(b) | Explain how compact soil impacts hydrological behavior. | [3] |
| Q.3(c) | You are looking at a land use map of two neighbourhoods A and B. The distribution of land use is as follows: A – residential 30%; forest 50%; water 10%; agricultural 10%, and B – residential 70%; forest 10%; water 10%; agricultural 10%. Compare the urban heat island effects in these two neighbourhoods with respect to their land use. | [5] |
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| Q.4(a) | Name one indicator of air pollution. | [2] |
| Q.4(b) | What is NDVI and what is it used for? | [3] |
| Q.4(c) | What is robustness in a landscape? Explain with an example of an ecosystem service. | [5] |
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| Q.5(a) | Which act makes it mandatory to take insurance policies to help provide relief? | [2] |
| Q.5(b) | What is the purpose of the IUCN red list? | [3] |
| Q.5(c) | Identify one sustainable development goal (SDG) of the United Nations and provide an example of how it aligns with a project in your area of interest. This project may be your proposed thesis. | [5] |

**:::::24/11/2022:::::E**