

GUJARAT TECHNOLOGICAL UNIVERSITY**BE (Minor) - SEMESTER– V EXAMINATION – WINTER 2023****Subject Code: 115AF01****Date: 07-02-2024****Subject Name: Sustainable Smart City****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

Marks

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|------------|--|-----------|
| Q.1 | (a) Define Sustainable Smart City (SSC). | 03 |
| | (b) Explain spatial planning for evolution of smart cities. | 04 |
| | (c) Describe social and political, evolution of city to the present day. | 07 |
| Q.2 | | |
| | (a) What is Green Technology? | 03 |
| | (b) Compare the quality of life in smart city and villages. | 04 |
| | (c) Give a brief history of smart city in India. | 07 |
| OR | | |
| | (c) Draw and explain the changing pattern of urban growth. | 07 |
| Q.3 | | |
| | (a) Write full form of 1) LEED 2) GRIHA 3) IGBC | 03 |
| | (b) Write a brief history of smart city in world. | 04 |
| | (c) Write a short note on challenges and measures for the smart city. | 07 |
| OR | | |
| Q.3 | (a) Enlist various city service utilities for the sustainable smart city. | 03 |
| | (b) Which are the norms and standards of GRIHA. | 04 |
| | (c) What are the principles of green and smart cities. | 07 |
| Q.4 | | |
| | (a) What is ecological foot print in sustainable development? | 03 |
| | (b) What are the impacts of ICT on management of smart city. | 04 |
| | (c) Describe the challenges for contemporary cities. | 07 |
| OR | | |
| Q.4 | (a) Enlist various Climate change indicators for smart cities. | 03 |
| | (b) Which are the different steps followed for the selection of smart cities in India. | 04 |
| | (c) Explain the Green building case study using LEED certification. | 07 |
| Q.5 | | |
| | (a) Write in brief role of local authorities and public participation in shaping the cities. | 03 |
| | (b) Which are the Urban sustainability foundations in a smart city. | 04 |
| | (c) Explain Worldwide policies for smart city in India and United nations. | 07 |
| OR | | |
| Q.5 | (a) Enlist any 3 criteria for Smart building of USGBC. | 03 |
| | (b) List and explain any 2 Green Technologies systems. | 04 |
| | (c) Explain various strategies targeted for smart city in India. | 07 |
