

GUJARAT TECHNOLOGICAL UNIVERSITY**BE(Minor) - SEMESTER– IV EXAMINATION – WINTER 2023****Subject Code:114AF01****Date:08-02-2024****Subject Name: Fundamentals of Smart City Planning****Time:02:30 PM TO 05:00 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.

- Q.1** (a) What are the objectives of smart cities? **03**
- (b) Describe the features of smart cities. **04**
- (c) Explain the concept of smart city. What are the requirements of smart cities? **07**
- Q.2** (a) Discuss key technologies needed for smart city. **03**
- (b) What is need to develop smart city? **04**
- (c) Give advantages and disadvantages of smart city. **07**
- OR**
- (c) Write a note on history of smart cities in India **07**
- Q.3** (a) What is cyber security? What is the need for cyber security in a smart city? **03**
- (b) Briefly explain the key trends in smart cities developments. **04**
- (c) Write about the stake-holders of smart city? **07**
- OR**
- Q.3** (a) What can be the role of Solar energy in smart cities? **03**
- (b) Describe various applications of GIS in Smart city. **04**
- (c) Explain in briefly energy saving system for smart city. **07**
- Q.4** (a) Briefly explain the concept of E-ticketing. **03**
- (b) Write short note on GPS role in smart city **04**
- (c) What is navigation system? Explain any one navigation system **07**

OR

- Q.4** **(a)** Which are the standards and benchmarks provide a foundation for that smart city development? **03**
- (b)** What is green building? Explain concept of green building. **04**
- (c)** Write short note on: Rating systems for green buildings **07**
- Q.5** **(a)** Which are the various phases of smart city project management? **03**
- (b)** Write the advantages of Intelligent Transport System (ITS). **04**
- (c)** Write about the key aspects of financing smart cities development. **07**

OR

- Q.5** **(a)** What are the objectives of Intelligent Transport System (ITS) **03**
- (b)** What is smart mobility? Give measures to improve mobility? **04**
- (c)** How lighting design can be an energy saving parameter in making building energy efficient? **07**
