

Reg. No. :

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**Question Paper Code: U1504S**

B.E. / B.Tech DEGREE EXAMINATION, NOV 2024

Professional Elective

Civil Engineering

21CEV504-SMART CITY TECHNOLOGIES

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer All Questions

PART – A (5 x 1 = 5 Marks)

1. Which city tops list of 27 new smart cities announced by Ministry of Urban Development? CO1-U  
(a) Amritsar (b) Ajmer (c) Madurai (d) Varanasi
2. How many mega schemes for revamping urban India will be launched by the PM Narendra Modi on 25th June'15? CO1-U  
(a) 1 (b) 2 (c) 3 (d) 4
3. \_\_\_\_\_ is an urban renewal and retrofitting program by the Government of India with the mission to develop smart cities across the country, making them citizen friendly and sustainable. CO2-App  
(a) National Smart Cities Mission (b) National Digital Centre Mission  
(c) Trade Mission (d) All the above
4. The total number of \_\_\_\_\_ smart cities have been distributed among the States and UTs on the basis of an equitable criteria. CO1-U  
(a) 50 (b) 75 (c) 100 (d) 125
5. The autonomous \_\_\_\_\_ based IoT platforms are used for internal management of the corresponding enterprise. CO3-Ana  
(a) eGovernment related (b) Enterprise-based  
(c) Company based (d) Business oriented platform

PART – B (5 x 3= 15 Marks)

- |     |                                                                    |         |
|-----|--------------------------------------------------------------------|---------|
| 6.  | What are the technologies involved in smart cities                 | CO2-App |
| 7.  | How to implement the renewable energy technologies in smart cities | CO1-U   |
| 8.  | Compare IOT and assessment in traffic management system?           | CO3-Ana |
| 9.  | Give the example for smart water system adopted in your city       | CO2-App |
| 10. | Discuss the Emerging trends involved in smart cities               | CO2-App |

PART – C (5 x 16= 80 Marks)

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|-----|-----------------------------------------------------------------------------------------------------------------|---------|------|
| 11. | (a) How to analysis Feasibility of smart cities and what are the steps involved in Smart city construction?     | CO2-App | (16) |
|     | Or                                                                                                              |         |      |
|     | (b) Explain India 100 smart cities policy and mission.                                                          | CO2-App | (16) |
| 12. | (a) Analyze in detail about the emerging efficient design strategies in smart buildings with suitable examples? | CO3-Ana | (16) |
|     | Or                                                                                                              |         |      |
|     | (b) Compare all the emerging trends & technologies of smart buildings in India with suitable examples.          | CO3-Ana | (16) |
| 13. | (a) As a engineer, how do you develop the Traffic management system in your locality.                           | CO4-App | (16) |
|     | Or                                                                                                              |         |      |
|     | (b) Apply the intelligent transportation and smart mobility for your new planned city?                          | CO4-App | (16) |
| 14. | (a) How technological advancements have led to increased waste generation?                                      | CO4-App | (16) |
|     | Or                                                                                                              |         |      |
|     | (b) What are smart water quality meters adopted in your area? Explain with suitable example.                    | CO4-App | (16) |
| 15. | (a) Discuss and the process of Metropolitan committee                                                           | CO2-App | (16) |
|     | Or                                                                                                              |         |      |
|     | (b) Describe the project organizational structures of the Madurai smart city project                            | CO2-App | (16) |