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Question Paper Code: U1504

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. Where are smart cities developing the fastest? CO1 U
(a) Europe (b) North America (c) Gulf Region (d) South Asia
2. 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
3. Which of the following city got first Smart City nomination? C01-U
(a) Hubballi Dharwa (b) Surat (c) Pune (d) Puducherry
4. The centre announced the names of cities & towns to be developed as smart cities on 27th Aug'15. Which state gets the maximum number of aspirant smart cities? CO1- U
a) Maharashtra b) Tamil Nadu (c) Uttar Pradesh (d) Madhya Pradesh
5. of participants believed the benefits of their smart devices were more important to them than their personal privacy in smart cities. C01-U
(a) 10 % (b) 20 % (c) 30 % (d) 40 %

PART – B (5 x 3= 15Marks)

6. Classify the benefits of smart cities. CO1- U
7. Describe the low carbon energy technology CO1- U

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| 8. | What are Intelligent Transport Systems? | CO1- U |
| 9. | Give the example for smart water system adopted in your city | CO2-App |
| 10. | Discuss in detail about commercialization | CO1- U |

PART – C (5 x 16= 80Marks)

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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) Examine the various dimensions of Smart City in detail. | CO2-App | (16) |
| 12. | (a) Explain in detail about Environmental energy management system. | CO2-App | (16) |
| | Or | | |
| | (b) Compare the advantages and disadvantages of energy efficient designs in a Building located in your native city | CO2-App | (16) |
| 13. | (a) Explain in details the Intelligent Transport Systems? | CO2-App | (16) |
| | Or | | |
| | (b) Detailed explanations are needed on how smart planning works for smart cities | CO2-App | (16) |
| 14. | (a) How technological advancements have led to increased waste generation? | CO2-App | (16) |
| | Or | | |
| | (b) Discuss the importance of decentralization in waste management | CO2-App | (16) |
| 15. | (a) Discuss and the process of Metropolitan committee | CO2-App | (16) |
| | Or | | |
| | (b) Explain in detail about principle and concepts of e-governance | CO2-App | (16) |