Assignment -2

Programme: B.Tech (AI & DS) **Semester: Seventh Semester**

Paper Code: OAE-421T **Paper Name: Digital & Smart Cities**

Q. No.	Question(s)
1	Explain Smart Lighting?
2	Mention **Any Five Core** Infrastructure Elements in a Smart City?
3	What is meant by Smart Governance?
4	Explain any **one** Typical Smart City Feature?
5	Name the Components of Smart Cities?
6	Explain the use of Smart Grids?
7	What is meant by Smart Cities? Why are Smart Cities important? Explain the Characteristics of Smart Cities in detail?
8	Define Smart Cities? Explain the role of AI, ML and IoT in enabling Smart City Solutions?
9	Define Digital Infrastructure for Smart Cities? Explain Security Issues and Challenges of Smart Cities?
10	What is meant by Urban Sensing? How it is done? Mention applications of Urban Sensing in Smart Cities?
11	Explain about Smart City Mission in India? Explain **any one** Case study of smart city implementation in India?

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Q. No.	Question(s)
1	Define smart transportation systems and their importance in modern cities.
2	Discuss the key components of smart transportation systems, such as IoT devices, GPS tracking, and traffic sensors.
3	How can smart transportation systems improve traffic flow, reduce congestion, and enhance safety?
4	Provide examples of cities or countries where smart transportation has been successfully implemented and describe the outcomes.
5	Explain what smart traffic management is and how it differs from traditional traffic control systems.
6	Discuss the role of technologies such as AI, IoT, and big data in optimizing traffic management.
7	Describe how smart traffic lights, real-time traffic monitoring, and predictive traffic analysis can improve urban mobility.
8	Provide case studies of cities that have effectively implemented smart traffic management solutions.
9	Define energy-efficient buildings and explain the principles behind their design.
10	Discuss various technologies used in energy-efficient buildings, such as smart thermostats, solar panels, and energy management systems.
11	What are the environmental and economic benefits of energy-efficient buildings for urban environments?
12	Provide examples of energy-efficient buildings or green buildings and discuss their impact on reducing carbon footprints.
13	Explain what a smart grid is and its significance in modern energy distribution.
14	Discuss how smart grids differ from traditional power grids in terms of technology and efficiency.
15	What role do renewable energy sources, energy storage, and demand-response systems play in smart grids?
16	Provide examples of countries or regions where smart grids have been successfully deployed and discuss the benefits.
17	Define smart healthcare solutions and their importance in improving urban healthcare systems.
18	Discuss the role of telemedicine, remote patient monitoring, and health data analytics in smart healthcare.
19	How can wearable devices, IoT, and AI improve patient outcomes and healthcare accessibility in urban areas?
20	Provide examples of smart healthcare solutions that have been implemented in cities and their impact on public health.
21	Explain the concept of public safety solutions in the context of smart cities.

22	Discuss how technologies such as AI, video surveillance, IoT sensors, and predictive analytics enhance public safety.
23	How can smart policing and emergency response systems contribute to crime reduction and quicker emergency handling?
24	Provide case studies of cities that have implemented smart public safety solutions and discuss the improvements.
25	Define smart waste management and explain its importance for sustainable urban development.
26	Discuss the role of IoT sensors, data analytics, and automated waste collection systems in improving waste management efficiency.
27	How can smart waste management contribute to recycling, waste reduction, and cost-saving for municipalities?
28	Provide examples of cities that have adopted smart waste management solutions and discuss the outcomes.
29	Explain the concept of environmental monitoring and its significance in a smart city.
30	Discuss how IoT devices, satellite technology, and big data analytics are used for monitoring air quality, water quality, and other environmental factors.

Assignment -3

Programme: B.Tech (AI & DS) **Semester: Seventh Semester**

Paper Code: OAE-421T **Paper Name: Digital & Smart Cities**

Q. No.	Question(s)
1	What is e-governance, and how does it transform the relationship between government and citizens?
2	Explain the key principles of e-governance and how digitalization has changed public service delivery.
3	Describe how e-governance platforms incorporate transparency, efficiency, and citizen participation.
4	What are the challenges faced by governments in implementing e-governance systems?
5	Discuss technical, financial, and social barriers to the adoption of e-governance.
6	What are digital citizen services, and how do they enhance the quality of life in smart cities?
7	How do digital services help in reducing bureaucracy and improving the efficiency of public administration?
8	What are the privacy and security concerns related to digital services for citizens, and how can these be mitigated?
9	What is open data, and why is it important for promoting transparency in governance?
10	How does data-driven decision-making enhance the management and planning of smart cities?
11	What are the ethical concerns surrounding the use of big data in decision-making?
12	What are participatory platforms, and how do they empower citizens in smart city governance?
13	How does community engagement through digital platforms contribute to more inclusive and responsive urban governance?
14	What are the key challenges in implementing community engagement platforms in smart cities?
15	What is e-governance, and how does it transform the relationship between government and citizens?
16	Explain the key principles of e-governance and how digitalization has changed public service delivery.