



GIET UNIVERSITY, GUNUPUR – 765022

Ph.D. (Second Semester) Examinations, November – 2023

WPPEEC2017 - Internet of Things and Applications

(ECE)

Time: 3 hrs

Maximum: 70 Marks

The figures in the right hand margin indicate marks.

Answer ANY FIVE Questions

(14 x 5 = 70 Marks)

	Marks
1.a. What is the concept of "Smart Cities" in the context of the Internet of Things (IoT) revolution? Discuss how IoT technologies can contribute to urban development and sustainability.	14
2.a. Discuss the concept of "Fractal Cities" and how it relates to the evolution of urban infrastructure in the IoT era. Provide examples of how IoT technologies can enhance city planning and management.	14
3.a. Describe the shift from cloud computing to Fog and MIST networking in the context of IoT communications. Explain the principles of Edge/P2P networking and its significance.	14
4.a. Analyze the security and privacy considerations in Fog computing for IoT. What are the key challenges and strategies to ensure data security and user privacy in Fog-based IoT applications?	14
5.a. Differentiate between various IoT networks, including PAN, LAN, and WAN. Discuss the characteristics and use cases of each type.	14
6.a. Discuss the challenges and opportunities of client-side control in IoT, including user-friendly interfaces and remote device management.	14
7 a. Explain the significance of Edge/gateway devices in IoT ecosystems. What are the key functions and components of these devices, and how do they facilitate IoT data processing?	14
8 a. Discuss the security and legal considerations in IoT applications. How does the Information Technology (IT) Act of 2000 address IoT-related legal issues, and what is the scope for additional IoT legislation?	14

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