



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:V
Class:TY	Program:B.Tech
Branch Code:ETC	Pattern:2022
Name of Course:Internet of Things	Course Code:ETC223009
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 2 pages.
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. Question number 1 and 2 are compulsory.

Marks CO

Question No. 1

- 1 Describe the physical design of IoT with its components. (6) 1

Question No. 2

- 2 Explain the layered approach of IoT architecture in detail. (6) 2

Question No. 3

- 3a) Explain the Zigbee smart energy. (8) 3

OR

- 3b) Differentiate between IPv4 and IPv6. (8) 3

- 3c) Write a short note on IEEE 802.15. (8) 3

OR

- 3d) Write difference between ZigbeeVs Z-wave. (8) 3

Question No. 4

- 4a) Explain LED interfacing with Aurdino board. (8) 4

OR

- 4b) How does Contiki-Cooja simulator handle networking and communication in IoT systems? (8) 4

- 4c) Explain LED interfacing with Raspberry Pi with the help of python code. (8) 4

OR

- 4d) Explain pin configuration of Aurdino Board in details. (8) 4

Question No. 5

- 5a) Draw and Explain the architecture of IIoT. (8) 5

OR

5b) How is Bluetooth used in industrial applications of IIoT? (8) 5

5c) What is IIoT and how it is different from IoT? (8) 5

OR

5d) Write short note on the innovation and IIoT. (8) 5

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