

Reg. No. :

Name :

Sixth Semester B.Sc./B.C.A. Degree Examination, April 2023

Career Related First Degree Programme Under CBCSS

Group 2 (b) – Computer Science/Computer Applications

Core Course/Elective Course

CS 1642/CP 1661.3 : INTERNET OF THINGS (IoT)

(2018 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A (Very Short Answer Type)

In One word to maximum of one sentence. Answer **all** questions.

1. Mention the three transportation challenges in connected roadways.
2. Expand RTLS.
3. HVAC stands for _____ in smart connected buildings.
4. What is BACnet?
5. SCADA stands for _____.
6. Expand IIRA
7. FAN stands for _____.
8. Expand XMPP.
9. What is DODAG?
10. Expand FAIR.

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B (Short Answer)

Not to exceed one paragraph, answer any **eight** questions. Each question carries **2** marks.

11. What is HAN? What is the technology used in it?
12. What is point-to-multipoint topologies?
13. What is Reduced Function Device?
14. What is a sensor?
15. What is 6LoWPAN mesh addressing?
16. Which are the two patterns of wirelessly connected smart objects?
17. What is TSCH?
18. What is the role of applications layer in one M2M architecture?
19. What is fog computing?
20. What is SANET?
21. What is Zigbee?
22. What is Wireless HART?

(8 × 2 = 16 Marks)

SECTION – C (Short Essay)

Not to exceed **120** words, answer any **six** questions. Each question carries **4** marks.

23. Explain the four different industrial revolution.
24. What is the purpose of IT and OT technologies?
25. What do you mean by constrained devices and networks in IoT?

- 26. What are the different factors by which objects are classified as smart?
- 27. How can you classify IoT constrained nodes?
- 28. Write notes on public and private partnership for public safety IoT.
- 29. Explain the role of mission fabric in public safety.
- 30. Write notes on video processing in IoT public safety information processing.
- 31. How are actuators classified?

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. **Each** question carries **15** marks.

- 32. Discuss the concept of smart creatures.
- 33. Explain the differences between IT and IoT networks and the IoT architectural change required.
- 34. Explain various layers in IoTWF architecture.
- 35. Explain the steps and phases in OCTAVO allegro methodology.

(2 × 15 = 30 Marks)
