

(6 pages)

Reg. No. : .....

Code No. : 20344 E Sub. Code : AECS 61

B.Sc. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2023

Sixth Semester

Computer Science – Major Elective

INTERNET OF THINGS

(For those who joined in July 2020 only)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. What is IOT?
  - (a) Network of physical objects embedded with sensors
  - (b) Network of virtual objects
  - (c) Network of objects in the ring structure
  - (d) Network of sensors

2. How many elements in the open IOT Architecture?
  - (a) 5 elts
  - (b) 3 elts
  - (c) 7 elts
  - (d) 6 elts
3. Which of the following protocols does the secure digital card application usage?
  - (a) MQTT
  - (b) SPI
  - (c) HTTP's
  - (d) XMPP
4. Internet domain name and host-name are translated into IP address by \_\_\_\_\_.
  - (a) DNS
  - (b) Domain Name Databases
  - (c) Router
  - (d) Domain information system
5. Which network does open IOT manage registration, deployment of sensors?
  - (a) LSM
  - (b) HTTP
  - (c) X-GSN
  - (d) GSN
6. In M2M, the communication type is \_\_\_\_\_.
  - (a) Point-to-point
  - (b) Multipoint
  - (c) Both (a) and (b)
  - (d) None of the above

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7. The relation between IOT and M2M is
  - (a) M2M is a part of IOT
  - (b) IOT is a part of M2M
  - (c) Both are same
  - (d) None of the above
8. Which of the following language is preferred for IOT analytics?
  - (a) R
  - (b) S
  - (c) Python
  - (d) All of the above
9. What is the real example of a smart grid device in IOT?
  - (a) Smart speaker
  - (b) Television
  - (c) Mobile phone
  - (d) Smart meters
10. \_\_\_\_\_ are sometimes referred as clients as they are machines that run the chef client software
  - (a) Server
  - (b) Work station
  - (c) Nodes
  - (d) Client

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PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain the logical design of IOT.

Or

(b) What are the protocols used for IOT communication?
12. (a) List out the models available in Raspberry pi.

Or

(b) State the difference between Raspberry pi and Arduino.
13. (a) What are the benefits of IOT in healthcare industry?

Or

(b) What impacts will have on IOT healthcare sector?
14. (a) What do you mean by smart city in IOT?

Or

(b) What is the cloud component of IOT?

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[P.T.O.]

15. (a) State the difference between IOT and M2M.

Or

(b) What is meant by smart city regarding IOT?

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Describe about the different components of IOT.

Or

(b) Explain the characteristics of IOT.

17. (a) Explain about Arduino programming.

Or

(b) What is virtualization? Explain its types.

18. (a) (i) What are the challenges of IOT in Agriculture?

(ii) What are the challenges of IOT in construction?

Or

(b) (i) Explain the benefits of IOT.

(ii) What is Government funding in IOT.

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19. (a) How does IOT influence the development of smart cities?

Or

(b) Explain the types of data that can be communicated between IOT devices.

20. (a) Explain smart education in IOT.

Or

(b) Explain the components and activities of M2M standards.

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