

Reg. No

Name

24U432

B C A DEGREE END SEMESTER EXAMINATION - MARCH 2024

SEMESTER 4 - MOBILE APPLICATIONS AND CLOUD TECHNOLOGY

COURSE : 19U4CRBCA14 - MOBILE DEVICE AND NETWORK ARCHITECTURE

(For Regular - 2022 Admission and Improvement / Supplementary - 2021/2020/2019/2018/2017/2016 Admissions)

Time : Three Hours

Max. Marks: 75

PART A

Answer All (1 mark each)

1. What is equipment identity register?
2. Give the functions of DSP (digital signal processing) module in mobile handset.
3. Explain the functions of mobile switching center.
4. What is mean by featured phones?
5. What is mean by radio resource management in mobile network?
6. What is mobile IP?
7. Discuss the factors affecting the quality of a camera in the mobile handset
8. List any two type of batteries.
9. What is analog signal?
10. Explain the functions of network layer.

(1 x 10 = 10)

PART B

Answer any 8 (2 marks each)

11. Explain the functions of SGSN (serving GPRS support node).
12. What is SMS? Describe its characteristics.
13. What is mean by energy efficient mobile sensing?
14. Which are the elements used to represent mobile identity?
15. What is Bluetooth?
16. What is mean by encoding in wireless communication?
17. Explain the functions of operation and billing system.
18. Which are the components associated with GPRS backbone.
19. How the amplitude modulation is helps in wireless communication?
20. Differentiate between low end phones and smart phones.

(2 x 8 = 16)

PART C

Answer any 5 (5 marks each)

21. Explain the evolution of mobile network.
22. Explain TDMA (time division multiple access) with necessary diagrams.
23. Draw and explain mobile terminated SMS flow.
24. Describe the session initiation protocol to implement dialog control.
25. Explain the architectural trends in CPU design.
26. Explain plain old telephone service and PSTN
27. Describe about the RF channels in the GSM.

(5 x 5 = 25)

PART D

Answer any 2 (12 marks each)

28. Draw and explain the architecture of the mobile network.
29. Explain the ISO OSI reference model.
30. Explain about the power subsystem components and the power reduction factors in a mobile handset.
31. Draw and explain the GSM network architecture.

(12 x 2 = 24)