

Reg. No

Name

19U424

B C A DEGREE END SEMESTER EXAMINATION - MARCH 2019
SEMESTER 4: MOBILE APPLICATIONS AND CLOUD TECHNOLOGY
COURSE : 16U4CRBCA14: MOBILE DEVICE NETWORK AND ARCHITECTURE
(For Regular - 2017 Admission and Supplementary/Improvement - 2016 Admission)

Time : Three Hours

Max. Marks: 75

Section A

Answer all the following (1 marks each)

1. Define multiplexing.
2. Define de-multiplexing.
3. Explain the functions of authentication center.
4. List the types of handover in cellular network.
5. What is common control channel?
6. Which are the functions of charging gateway?
7. Write the features of 3G network.
8. List any two vendors of the software framework used in the mobile
9. What is IMEI?
10. Explain the functions of application layer software in the mobile handset?

(1 x 10 = 10)

Section B

Answer any 8 (2 marks each)

11. What is mean by modulation in wireless communication?
12. Define Nyquist theorem.
13. Explain the models in SMS billing.
14. Explain the features of cellular mobile network.
15. Explain the two type of logical cannels.
16. Explain the functions of physical layer in the GPRS network.
17. What is mean by bill of materials of the mobile handset?
18. Differentiate between low end phones and featured phones.
19. Which are the operations involved in the execution of instruction?
20. Explain the functions of power distribution and charging sections.

(2 x 8 = 16)

Section C

Answer any 5 (5 marks each)

21. Explain TDMA (time division multiple access) with necessary diagrams.
22. Explain mobile network protocol layers.
23. Explain the types of handoff process when a mobile device switching its cell. Explain the handoff procedure.
24. Explain the components of core network in a GPRS architecture.
25. Differentiate between the features of 3G and 4G network.
26. Describe the characteristics of a mobile handset.
27. Explain the architectural trends in CPU design.

(5 x 5 = 25)

Section D

Answer any 2 (12 marks each)

28. Explain the ISO OSI reference model.
29. Draw and explain the architecture of the mobile network.
30. Draw and explain the GSM network architecture.
31. Write a note on radio frequency sub system and mobile identity services.

(12 x 2 = 24)