Reg. No…….. Name…… **20U424**

B C A DEGREE END SEMESTER EXAMINATION - MARCH 2020

SEMESTER 4: MOBILE APPLICATIONS AND CLOUD TECHNOLOGY

COURSE: 16U4CRBCA14: MOBILE DEVICE AND NETWORK ARCHITECTURE

(For Regular - 2018 Admission and Supplementary/Improvement - 2016 Admissions)

Time: Three Hours Max. Marks: 75

SECTION A

Answer all the following (1 marks each)

1. Define demodulation.
2. List the process to achieve pulse code modulation.
3. Explain the functions of mobile switching center.
4. What is equipment identity register?
5. What is mobile IP?
6. What is UTRAN?
7. What is mean by featured phones?
8. Differentiate between landscape and portrait size displays.
9. Which are the key considerations in power management?
10. What is antenna in a mobile handset? Give the functions of antenna. (1 x 10 = 10)

SECTION B

Answer any 8 (2 marks each)

11. What is circuit switching?
12. What is mean by multiplexing in wireless communication?
13. Give the advantages of frequency reuse
14. Explain the functions of opera□on and billing system.
15. Describe the functions of PCU (packet control unit).
16. Explain the functions of SGSN (serving GPRS support node).
17. Which are the major evolution technologies released in mobile network?
18. Differentiate between low end phones and smart phones.
19. Explain the functions of ADC and DAC in a mobile handset?
20. Describe the functions of a SIM. (2 x 8 = 16)

SECTION C

Answer any 5 (5 marks each)

21. Differen□ate between the amplitude modulation and the frequency modula□on.
22. Explain code division multiple access with an example.
23. Draw and explain the mobile originated SMS flow.
24. Explain the functions of radio access network in UMTS.
25. Explain the functions of the transmission layer and the data link layer in GPRS network
26. Explain the components of a mobile handset
27. Explain different type of memories used in a mobile handset. (5 x 5 = 25)

SECTION D

Answer any 2 (12 marks each)

28. Explain the different principles associated in wireless communication.
29. Draw and explain SMS network architecture.
30. Explain the different types of radio frequency channels associated with a GSM network
31. Explain the different hardware subsystems in the mobile handset (12 x 2 = 24)