C

Question Paper Code: 99456

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2022

Open elective

Civil Engineering

19UEC956– ANATOMY OF SMARTPHONES AND LAPTOPS

(Common to CSE, EEE, Mechanical, IT, Chemical, Agriculture and Biomedical, CSBS & Biotechnology Engineering Branches)

(Regulations 2019)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (5x 1 = 5 Marks)

1. The 2G GSM technology uses a carrier separation of   CO1- U

    (a) 1.25 MHz   (b) 200 KHz   (c) 30 KHz   (d) 300 KHz

2. Citizen band radio operates at _____ frequency.   CO2- U

    (a) 26 to27.1 MHz   (b) 1.8 MHZ   (c) 2MHz   (d) 3.5 MHz

3. How many devices can exist in an IDE chain?   CO2- U

    (a) 1   (b) 2   (c) 3   (d) 4

4. In a laptop, the average lifespan of a Li-Ion battery is about ___cycles   CO2- U

    (a) 700-800   (b) 800-900   (c) 900-1000   (d) 800-900

5. _____ sets standards for HTML, XML, and the Web.   CO2- U

    (a) wafer   (b)W2C   (c) W3C   (d) WC

PART – B (5 x 3= 15 Marks)

6. Discuss about Dynamic Channel Environment Detection Method in GSM mobile terminals?   CO1- U

7. Describe about the Cold Testing Method.   CO2- U

8. Diagnose the "The dial-up modem doesn't work" error in laptops.   CO3- App

9. Identify the fault diagnoses procedure for the scenario "While I was updating   CO3- App
my BIOS, the system froze and now the system is dead!"

10. Consider the following scenario, propose an appropriate solution:"identify the   CO4- App
channel of the RAM".

<center>PART – C (5 x 16= 80Marks)</center>

11. (a) (i) Discuss about the evolution of the GSM System   CO1- U   (8)

   (ii) Compute the Channel Length in GSM mobile terminal   CO1- U   (8)

<center>Or</center>

 (b) Describe about the Mobile Handsets Digital Modulation   CO1- U   (16)

12. (a) Interpret the skills needed to diagnose and repair a mobile phone.   CO2- U   (16)

<center>Or</center>

 (b) Decide on a usage of the correct hardware tools to repair mobile   CO2- U   (16)
cell phones and explain why you chose those particular tools.

13. (a) Diagnose the scenarios mentioned below (in laptops) and   CO3- App   (16)
troubleshoot them.
  (i) When I power the system on, I see the power LED light
   and determine that the fan spins, but nothing else ever
   happens.
  (ii) The system won't boot up. It says "Missing operating
   system" on the screen.
 The power button won't turn off the system.

<center>Or</center>

 (b) Diagnose the "Missing operating system" scenarios mentioned   CO3- App   (16)
below (in laptops) and troubleshoot them.
  (i) The drive parameters entered in the BIOS Setup are
   incorrect or corrupted.
  (ii) The drive is not yet partitioned and formatted on this
   system.
  (iii) The MBR and/or partition tables are corrupted.
 The MBR and/or partition tables are corrupted.

14. (a) For the scenarios (in laptops) that have been mentioned, propose   CO4- App   (16)
an appropriate solution "The user wants to upgrade the RAM from
4GB to 8 GB".

<center>Or</center>

(b) For the scenarios (in laptops) that have been mentioned, propose an appropriate solution "When I power the system on, the fan does not spin."   CO4- App   (16)

15. (a) Apply the worth criteria for laptops with integrated graphics and external/dedicated graphics card to analyze its specifications.   CO4- App   (16)

Or

(b) Consider the following scenario "The user turn on the system, the display didn't respond and hears only the beep sound".Propose an appropriate solution.   CO4- App   (16)

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