Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

B.Voc. (Electronics & Information Technology) (Sem.-5)
MOBILE TECHNOLOGIES
Subject Code : BVET 502-20
M.Code : 93210
Date of Examination : 23-12-22

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. a) What are advantages of frequency reuse?

   b) Write types of channel assignment strategies.

   c) What are the challenges in mobile communication?

   d) What do you mean by small scale fading?

   e) List various outdoor propagation models?

   f) Write at least two disadvantages of Hata model

   g) Write at least two advantages of Frequency Hoping Spread Spectrum.

   h) Compare Slow and Fast Frequency Hoping Spread Spectrum.

   i) Define GSM. List the components present in GSM.

   j) Differentiate between circuit switching and packet switching.

SECTION-B

2. Write a detailed note on Handoff process. (5)

3. Explain in detail about following Modulation techniques

   (a) BPSK (b) FM (2.5+2.5=5)

4. Write a detailed note on Direct Sequence Spread Spectrum. (5)

5. Explain in detail about 2.5 G Mobile Networks. (5)

6. What is spread spectrum? Explain in detail about advantages of spread spectrum. (5)

SECTION-C

7. Explain in detail about following

   (a) Cell Splitting (b) Cell Sectoring (5+5=10)

8. Write a detailed note on Multipath and small-scale fading in reference to Mobile radio Propagation. (10)

9. Write a detailed note on following generations of Wireless Networks

   a) First Generation

   b) Second Generation

   c) Third generation (3+4+3=10)

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.