

Master of Computer Application (MCA-III) (CBCS Pattern) Fifth Semester  
**PSMCAT505.2 - Elective-II - Mobile Computing Paper-V**

P. Pages : 2

Time : Three Hours



**GUG/W/18/11124**

Max. Marks : 80

- Notes :
1. All the questions are compulsory and carry equal marks.
  2. Draw neat and labelled diagram wherever necessary.
  3. Avoid vague answers and write the answers relevant and specific to questions only.

**1.** Either:

- a) What is mobile computing? Write its applications and characteristics. **8**
- b) Explain in detail various issues of wireless MAC. **8**

**OR**

- c) Write a note on: **8**
  - i) Random Assignment Scheme
  - ii) Reservation Based Schemes.
- d) Explain in detail structure of Mobile Computing Application. **8**

**2.** Either:

- a) What Mobile IP? Explain. Write the features of Mobile IP. **8**
- b) Explain in detail Architecture of TCP/IP. **8**

**OR**

- c) Discuss in detail, how to improve performance of TCP. **8**
- d) Explain detail the key mechanism in Mobile IP. **8**

**3.** Either:

- a) Define GSM. Explain various categories of services. **8**
- b) Explain in detail Architecture of UMTS. **8**

**OR**

- c) What is GPRS? Write the Goals and features of GPRS. **8**
- d) Explain in detail purpose of EIR. **8**

4. Either:
- a) Discuss various Popular Routing Protocols in detail. 8
  - b) What is VANET? Explain its characteristics. 8

**OR**

- c) Explain in detail the difference between cellular and Ad hoc Network. 8
  - d) Define Ad-Hoc. Explain its design issues in detail. 8
5. Attempt all the questions.
- a) Differentiate between Mobile Computing and Wireless Networking. 4
  - b) Write a short note on Route Optimization. 4
  - c) Write the functions of HLR. 4
  - d) Differentiate between MANET and VANET. 4

\*\*\*\*\*