

Total No. of Questions : 8]

SEAT No. :

PE-2202

[Total No. of Pages : 2

[6584]-101

B.E. (Computer Engineering)

MOBILE COMPUTING

(2019 Pattern) (Semester - VII) (410245 C) (Elective - IV)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates :

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4 Q.5 or Q.6, Q. 7or Q.8.*
- 2) *Figures to the right indicates full marks.*
- 3) *Assume suitable data, if necessary.*

Q1) a) Draw and explain frame structure GSM system in details. [6]

b) Write a short note on Base Station Subsystem and Network Switching Subsystem. [6]

c) Draw and explain the GPRS protocol stack. [6]

OR

Q2) a) State advantages, disadvantages and applications of GPRS. [6]

b) Write a short note on IEEE802.11 [6]

c) Compare UMTS and GSM. [6]

Q3) a) Write a short note on: HLR and VLR. [6]

b) Explain types of handovers in GSM. [6]

c) Draw and explain GSM MAP protocol hierarchy [5]

OR

Q4) a) Explain handoff performance evaluation metrics. [6]

b) Compare horizontal handoff and vertical handoff. [6]

c) Explain in details VLR Identification Algorithm. [5]

P.T.O.

- Q5)** a) Explain Home agent and foreign agents in mobile IP. [6]
b) Draw and explain network architecture of VANET in details. [6]
c) Explain 3G wireless network. [6]

OR

- Q6)** a) Write a short note on: tunneling and encapsulation. [6]
b) Explain DHCP in details. [6]
c) Draw and explain WTA architecture in details. [6]

- Q7)** a) State advantages, disadvantages and applications of 5G. [6]
b) Explain block diagram of UMTS in details. [6]
c) Explain CDMA2000 in details. [5]

OR

- Q8)** a) Explain different types of UMTS channels. [6]
b) Compare HSDPA and HSUPA. [6]
c) Explain LTE in details. [5]
