Total No. of Questions : 8] **SEAT No. :**

P-6561 **[Total No. of Pages : 2**

[6181]-111

B.E. (Computer Engineering)

MOBILE COMPUTING

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

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***Solve Q.1 or Q.2, Q.3 or Q.4 Q.5 or Q.6, Q.7 or Q.8.***
2) ***Figures to the right indicate full marks.***
3) ***Assumme suitable data if necessary.***
4) ***Neat diagrams must be drawn wherever necessary.***

Q1) a) Explain the network and switching Sub-System of GSM architecture. **[5]**

b) Compare various IEEE 802.11 x standards. **[5]**

c) Explain UMTS architecture in detail. **[7]**

OR

Q2) a) Explain different architectures of WLAN. **[5]**

b) Explain the Um interface of GSM. **[5]**

c) Explain using block diagram the process of authentication in a GSM Service. **[7]**

Q3) a) Explain difference between Hard and Soft Handoff. **[5]**

b) Explain the Cell dragging in detail. **[5]**

c) Explain the process of call origination and call termination in GSM. **[7]**

OR

Q4) a) Explain mobility management with neat diagram. **[5]**

b) Define Handover. List and explain the types of handover. **[5]**

c) Explain GSM interfaces and GSM protocol architecture. **[7]**

P.T.O.

Q5) a) Describe data transfer from a mobile node to a fixed node and vice versa. **[6]**

b) Explain agent advertisement and discovery registration in mobile network. **[6]**

c) Why and how can optimization in mobile IP be achieved? **[6]**

OR

Q6) a) How is packet delivery achieved to and from mobile node. **[5]**

b) Discuss how tunneling works for mobile IP using IP_in_IP encapsulation. **[5]**

c) Describe DSDV and DSR routing algorithms for ad hoc network. **[8]**

Q7) a) Write short note on VoLGA architecture. **[5]**

b) Explain evolution from UMTS to LTE. **[5]**

c) Explain 3G and 4G technologies for GSM and CDMA. **[8]**

OR

Q8) a) Explain SAE architecture in detail. **[6]**

b) What is HSPA? Explain in detail. **[6]**

c) Explain the 4G LTE technologies with a neat diagram. **[6]**

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