

B.E./B.TECH. Degree Examination, December2020

Semester - VI

IT16602-Mobile Computing

(Regulation 2016)

Time: Three hours

Maximum:80 Marks

Answer **ALL** questions**PART A - (8 X 2 = 16 marks)**

1. Client context manager maintains information pertaining to the following.
a. Mobile devices b. User. c. Location d. All the above
2. Which of the following stores Mobile Subscriber ISDN number – MSISDN?
a. VLR. b. EIR. c. Both a and b. d. None of the above
3. IEEE 802.11xx standard is a wired LAN technology.
A. True B. False
4. An algorithm in encryption is called a module.
A. True B. False
5. Compare long session oriented transaction with short session less transaction.
6. Differentiate FHSS and DSSS.
7. Why CSMA/CD is not suitable for wireless LAN?
8. Distinguish FDM vs TDM.

PART B - (4 X16 = 64 marks)

09. (a) (i) How user agent can be connected with database through middleware? (8)
Draw it's architecture.
 - (ii) Why transcoding is required? Elaborate the various transcoding (8)
schemes in detail.
- (OR)**
- (b) (i) When context informations are necessary to design a system? Design (8)
a navigation system for a car with respect to various context.
 - (ii) Design a system to know the customer loan details through (8)
mobile/telephone.
10. (a) (i) Mr. Boss sent an official mail through his mobile to his Secretary when (10)
he was in home. Later, her boss went to some other place when she has
sent a reply mail to him. How the IP datagram delivered to him?
Explain with a neat diagram.
 - (ii) Explain the IP header with respect to the above scenario. (6)

(OR)

- (b) (i) Mr. X dialled a number of Mr. Y when he was in BSC1. At the same time Mr Y moved to BSC 2. Likewise Mr. X also moved to different MSC. Depict the scenario of call establishment and closing of the connection. Assume both are using GSM technology. (10)
- (ii) Design the architecture with respect to the above scenario. (6)
11. (a) (i) Mr. A access the server 1 through his smartphone. At the same time, Mr. B received an advertisement message voluntarily in his smartphone from server 2. Differentiate the two scenario through a suitable architecture. (8)
- (ii) Which is the suitable protocol required for the above scenario. Explain it's architecture in detail. (8)

(OR)

- (b) (i) Mr. Anand dials toll free number of Amazon through his phone. Hence the call was connected to real number of Amazon office. Explain the mechanism of this call establishment in detail. (10)
- (ii) Which type of signaling Mechanism is required with respect to the above scenario? Draw it's architecture. (6)
12. (a) Differentiate symbian os and Android os with it's architecture. (16)

(OR)

- (b) Develop a mobile application to accept user credentials and display their personal details in mobile. (Use Android studio or Eclipse) (16)