

# Eighth Semester B.E. Degree Examination, July/August 2022 Mobile Computing

Time: 3 hrs.

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Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

#### Module-1

- a. Illustrate the stepwise call routing procedure between two entities in GSM. (10 Marks)
  - b. Describe GSM entities with its architecture along with a neat diagram. (10 Marks)

#### OR

- 2 a. What are the abstract functions of the three-tier architecture for mobile computing? Illustrate with a neat diagram. (10 Marks)
  - b. What is the importance of IP Header with respect to mobile IP? Draw the frame structure of IP header along with its fields. (10 Marks)

## Module-2

- **3** a. Bring out the differences between GSM and 3G.
  - b. Illustrate the attachment and detachment procedure in GPRS network operation with a neat diagram. (10 Marks)

#### OR

- 4 a. What are the design constraints in applications for handheld devices. (10 Marks)
  - b. Explain : i) GPRS protocol stack diagram ii) Protocol architecture of GPRS. (10 Marks)

#### Module-3

- 5 a. Illustrate the salient features of smart client architecture with a neat diagram. (10 Marks)
  - b. Brief the importance if the Palm OS architecture with a neat diagram. (10 Marks)

## OR

a. Demonstrate the development cycle using device emulators with a neat diagram. (10 Marks)
 b. Illustrate the wireless architecture with direct connectivity to wireless carrier and using a wireless ISP. (10 Marks)

#### **Module-4**

- a. Bring out the stages of a wireless internet request with a neat diagram. (10 Marks)
- b. Explain the WAP architecture and its relationship to the OSI model with a neat diagram.

(10 Marks)

(10 Marks)

## OR

| 8 | a. | Bring out the differences between XHMTL based and XHTML-MP. | (10 Marks) |
|---|----|---|------------|
|   | b. | With a WML code for inventory sample.                       | (10 Marks) |

## Module-5

a. Describe the states in a player's lifecycle of a media player. (10 Marks)
b. Explain the security considerations in MIDP. (10 Marks)

## OR

10a. Explain the MIDlet lifecycle.(10 Marks)b. Write a short note for the following:i) CDCii) CLDC.(10 Marks)

6

7

9