USN

Eighth Semester B.E. Degree   **Dec201'9' Jan.2020**

Wireless Networks and Mobile Computing

Time: 3 hrs.   Max. Marks:100

Note: *Answer ant FIVE full questions, selecting atleast TWO questions from each part.*

PART - A

1. a. Explain the following types of middlewares.
   i) Message oriented middleware ii) Database middleware. **(06 Marks)**
   b. What is Transcoding? Mention and Explain the different Transcoding schemes. **(06 Marks)**
   c. Explain the following with respect to design considerations for mobile computing :
   i) Chant context manager ii) Security manager. **(08 Marks)**

2. a. With a neat diagram, explain the architecture of GSM. **(08 Marks)**
   b. Explain briefly the GSM frequency allocation. **(06 Marks)**
   c. Mention the strengths of SMS and also explain briefly operator centric pull with respect to SMS. **(06 Marks)**

3. a. Mention and explain the fiinctionalities of :
   i) Serving GPRS support node
   ii) Gateway GPRS support node. **(06 Marks)**
   b. With a diagram, explain the transmission plane protocol architecture. **(07 Marks)**
   c. Mention and explain, the applications and limitations of GPRS. **(07 Marks)**

   a. With a diagram, explain the IS-95 architecture model. **(08 Marks)**
   b. With a relevant diagrams, explain the different handoff mechanisms of **1S-95.** **(07 Marks)**
   c. With a diagram, explain the architecture of WiMAX. **(05 Marks)**

PART - B

5. a. With a diagram, explain the components of digital communication device. **(05 Marks)**
   b. With a relevant examples, explain the design constraints in applications for hand held devices. **(08 Marks)**
   c. Explain the following technologies : i) Cellular IP   Mobile IP with lPv6. **(07 Marks)**

6. a. With a neat diagram, explain the smart client architecture. **(07 Marks)**
   b. Give the features ofpalm OS and also explain palm OS architecture. **(05 Marks)**
   c. Why deployment phase is difficult? With a diagram explain the different deployment options **(08 Marks)**

7. a. With a neat diagram, explain the stages of wireless internet request. **(08 Marks)**
   b. With an examples, explain the features of following wireless mark up languages.
   i) HDML ii) cHTML. **(05 Marks)**
   c. With a relevant diagrams, explain the different wireless application protocol programming models. **(07 Marks)**

8. a. Explain MIDIet lifecyc le, with respect to J2ME. **(05 Marks)**
   b. Give the importance of lowlevel GUI components with an examples, explain the low level capability of J2ME. **(07 Marks)**
   c. With an examples, explain communication in MIDP. **(08 Marks)**