Hall Ticket Number:

Code No. : 41124 S

VASAVI COLLEGE OF ENGINEERING *(Autonomous)*, HYDERABAD

B.E. (CSE) IV Year I-Semester Supplementary Examinations, May-2019

Mobile Communications

(Elective-II)

Time: **3** hours Max. Marks: **70**

*Note: Answer **ALL** questions in **Part-A** and any **FIVE** from **Part-B***

Part-A (10 × 2 = 20 Marks)

1. With respect to Frequency Spectrum, what is UHF and SHF?
2. What is spread spectrum? Name the two Spread Spectrum Techniques.
3. List the subsystems found in the GSM Protocol architecture.
4. What are the advantages of DAB (Digital Audio Broadcasting)?
5. How fairness for channel access is ensured in IEEE 802.11?
6. What is a piconet in Bluetooth Protocol?
7. What is co-located COA in Mobile IP protocol?
8. What is the objective of Destination Sequencing in DSDV Manet routing protocol?
9. What are the disadvantages of Indirect TCP protocol?
10. State any TWO popular mobile transaction models.

Part-B (5 × 10 = 50 Marks)

11. a) Explain the concept of Spread Spectrum with a diagram. [5]
    b) Distinguish the concepts of Analog and Digital Modulations with neat sketches. [5]
12. a) Draw the architectural diagram of GPRS Protocol indicating the newly added components. [5]
    b) Explain the steps involved in Digital Video Broadcasting (DVB). [5]
13. a) Illustrate the working of IEEE 802.11 MAC scheme- DFWMAC-DCF using CSMA/CA. [6]
    b) What is L2CAP in Bluetooth protocol? Brief its role. [4]
14. a) With a neat sketch explain data delivery to Mobile Hosts using Mobile IP. [5]
    b) Explain the principle of operation of AODV routing protocol for MANETs. [5]
15. a) Explain the impact of Congestion Policy of TCP in mobile computing environment. [4]
    b) Compare the two TCP solutions – I-TCP and S-TCP. [6]
16. a) Explain the multiplexing schemes for wireless communication. [4]
    b) What are the databases used in GSM protocol architecture and explain with a neat diagram. [6]
17. Answer any ***two*** of the following:
    a) How hidden and terminal problems are addressed in IEEE 802.11 standard? [5]
    b) Illustrate how routes are establishes between source & destination in MANETs using Reactive protocols? [5]
    c) Explain the Android mobile platform. [5]