

**SVKM'S NMIMS**  
**SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING, NAVI-MUMBAI**

Academic Year: 2022-2023

Program: BTech Stream: CSBS

Subject: Mobile Computing

Date: 26/09/ 2022

Marks: 20

Year: IV Semester: VII

Time: 45 mins (11.00 to 12.00)

No. of Pages: 1

**Mid-Term Examination (Set 2)**

**Instructions:** Candidates should read carefully the instructions printed on the question paper and on the cover of the Answer Book, which is provided for their use.

- 1) Question No. 1 is compulsory. Answer any 3 from Q2 to Q5.
- 2) Each question carries equal marks.
- 3) Answer to each new question to be started on a new page.
- 4) Figures in brackets on the right-hand side indicate full marks.
- 5) Assume Suitable data if necessary.

Q.No.	Statement of the question	CO/ SO/ BL	Marks
Q.1 (a)	Brief the architectures of WLAN 802.11 with figure.	CO3/SO/BL1	(2)
Q.1 (b)	Illustrate the basics of bluetooth technology.	CO3/SO/BL2	(2)
Q.1 (c)	Describe the variants of physical layer used in 802.11.	CO3/SO/BL1	(2)
Q.1 (d)	Analyse how Bluetooth solves hidden terminal problem.	CO3/SO/BL3	(2)
Q.2	Highlight How are fairness problems regarding channel access solved in IEEE 802.11 and Bluetooth respectively?	CO3/SO/BL2	(4)
Q.3	Define the terms MIMO, OFDM. Explain the concept of beamforming in MIMO.	CO3/SO/BL1	(4)
Q.4	Differentiate between single hop and multihop architecture in bluetooth? Explain the process of piconet formation.	CO2/SO/BL1	(4)
Q5.	Explain the working of GSR protocol along with example and format of all tables	CO3/SO/BL1	(4)