GIET MAIN CAMPUS AUTONOMOUS GUNUPUR – 765022

B. Tech Degree Examinations, November – 2021

(Seventh Semester)

BITPE7020 – MOBILE COMPUTING

(Information Technology)

Time: 3 hrs   Maximum: 100 Marks

Answer ALL Questions

The figures in the right hand margin indicate marks.

PART – A: (Multiple Choice Questions)   **(2 x 10 = 20 Marks)**

			[CO#]	[PO#]
Q.1.	Answer *ALL* questions			
a.	This transmission media is used for short distance wireless communication between computers		CO2	PO1
	(i) Microwave	(ii) Radio		
	(iii) Bluetooth	(iv) Satellite		
b.	What do the letters GSM currently mean ?		CO3	PO3
	(i) Global Special Mobile	(ii) Greater System Mobiles		
	(iii) Global Systems for Mobile Communications	(iv) None of these		
c.	Access method in IEEE 802.11 for wireless LANs is based on		CO1	PO2
	(i) CSMA CD	(ii) CSMA CA		
	(iii) Token Passing	(iv) CSMA		
d.	Function of GPRS include		CO2	PO1
	(i) radio resource management	(ii) mobility management		
	(iii) network management	(iv) all of these		
e.	Piconet is		CO3	PO3
	(i) master-slave	(ii) client-server		
	(iii) both	(iv) none of these		
f.	SIM algorithm is checked by		CO4	PO1
	(i) AUC	(ii) HLR		
	(iii) VLR	(iv) EIR		
g.	A single frame in GSM frame structure consists of		CO1	PO4
	(i) 10 time slots	(ii) 8 time slots		
	(iii) 4 time slots	(iv) 7 time slots		
h.	Bluetooth network can have _____ no. of masters.		CO2	PO1
	(i) one	(ii) two		
	(iii) three	(iv) eight		
i.	The normal shape of shell in GSM is		CO3	PO3
	(i) Hexagonal	(ii) Circular		
	(iii) Rectangular	(iv) Triangular		
j.	Mobile devices register temporarily with		CO2	PO1
	(i) AUC	(ii) HLR		
	(iii) VLR	(iv) none of these		

PART – B: (Short Answer Questions)   **(2 x 10 = 20 Marks)**

Q.2. Answer *ALL* questions   [CO#]   [PO#]

  a. What are the main reasons for using cellular system?   CO2   PO3
  b. What are the advantages of wireless LAN ?   CO2   PO4
  c. What are the two different types of physical links offered in Bluetooth ?   CO3   PO2
  d. What is the purpose of WML ?   CO2   PO1
  e. What do you mean by satellite network ?   CO1   PO4
  f. What is Personal Communications Services?   CO2   PO3
  g. What is Roaming ?   CO4   PO1
  h. What do you mean by hand-off?   CO1   PO2
  i. What is mobile commerce ?   CO3   PO3
  j. What is WAP ?   CO2   PO1

PART – C: (Long Answer Questions)   **(15 x 4 = 60 Marks)**

Answer *ALL* questions   Marks   [CO#]   [PO#]

 3. a. Explain the GSM network architecture.   10   CO2   PO1
    b. What are the reasons behind handover?   5   CO1   PO2

                                OR

    c. What are the features of wireless markup language?   5   CO3   PO1
    d. Briefly describe the GPRS technology.   10   CO1   PO3

 4. a. Describe android application architecture in detail.   9   CO2   PO1
    b. What are the functions of home agent and foreign agent in mobile IP?   6   CO1   PO3

                                OR

    c. Explain different types of satellite.   8   CO4   PO1
    d. Show the wireless application protocol stack.   7   CO3   PO4

 5. a. Explain about passive scanning and active scanning.   8   CO2   PO2
    b. Why is mobile IP packet required to be forwarded through a tunnel ?   7   CO1   PO3

                                OR

    c. Describe the application of M-commerce in automotive industry.   8   CO2   PO3
    d. Compare and contrast mobile marketing Vs. business.   7   CO4   PO4

 6. a. Distinguish between infrastructure-based network and infrastructure less Network.   8   CO3   PO1

    b. Classify Hidden Terminal and Exposed Terminal Problem with the help of a diagram.   7   CO2   PO4

                                OR

    c. Define Ad-Hoc networks. List the applications of Mobile Computing.   4+6   CO1   PO2
    d. Explain JDBC.   5   CO3   PO3

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