Q. Code:256742

Reg. No. | | | | | | | | | | | | | |

B.E./ B.TECH. DEGREE EXAMINATIONS, MAY 2024

Fifth-Semester

IT18502 – MOBILE COMPUTING

(Common to INT & CSE)

(Regulation2018/2018A)

TIME:3 HOURS **MAX. MARKS: 100**

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO 1	Interpret the working characteristics and limitations of mobile hardware devices including their user-interface modalities.	**3**
CO 2	Choose the suitable technologies for appropriate mobile communication.	**4**
CO 3	Summarize the various wireless LAN technologies.	**3**
CO 4	Assess the development environment used in mobile devices.	**4**
CO 5	Develop applications that are mobile-device specific.	**4**

PART- A(10x2=20Marks)

(Answer all Questions)

		CO	RBT LEVEL
1.	Describe ubiquitous computing and offer an appropriate illustration.	**1**	**2**
2.	Compare long session oriented dialogue with short session oriented dialogue.	**1**	**2**
3.	Differentiate 5G from 4G technology.	**2**	**2**
4.	Mr. A intends to establish a Wi-Fi network within his organization and has sought a license from TRAI for this purpose. What shortcomings can be identified in his approach? Justify your response, including an enumeration of the different Wi-Fi standards.	**2**	**4**
5.	Identify the scenario in which Wi-Fi and wired LAN are employed.	**3**	**3**
6.	Under what circumstances is a virtual private network necessary? Provide a suitable example.	**3**	**2**
7.	Compare mobile phones with PDA.	**4**	**2**
8.	Point out few low level managers functionality to handle user interfaces in Palm OS.	**4**	**2**
9.	Describe the design limitations exist in applications for handheld devices.	**5**	**2**
10.	List few mobile operating system.	**5**	**2**

PART- B (5x 14=70Marks)

		Marks	CO	RBT LEVEL
11. (a)	When is computation necessary in mobile applications? Illustrate and elucidate the architecture of mobile computing.	**(14)**	**1**	**3**

(OR)

(b)	In what situations is middleware necessary? Provide a comprehensive explanation of its different types.	**(14)**	**1**	**3**

12. (a)	Explain Global System for Mobile Communication architecture in detail.	**(14)**	**2**	**2**

(OR)

(b)	Explain General Packet Radio Service architecture with a neat diagram.	**(14)**	**2**	**2**

13. (a)	Illustrate and elucidate the architecture of wireless networks in Infrastructure and Ad hoc modes.	**(14)**	**3**	**3**

(OR)

(b)	Explain SS7 signaling mechanism functionality with a clear diagram.	**(14)**	**3**	**3**

14. (a)	Elaborate on the architecture of Symbian OS with a comprehensive illustration.	**(14)**	**4**	**3**

(OR)

(b)	Illustrate and elaborate on the Android OS architecture in depth.	**(14)**	**4**	**3**

15. (a)	Describe the scenario in which Voice over Internet Protocol and compression/decompression techniques are utilized.	**(14)**	**5**	**4**

(OR)

(b)	**(i)**	Enumerate the security concerns in mobile computing.	**(6)**	**5**	**4**
	(ii)	Illustrate the context in which multimedia networking protocols are employed.	**(8)**		

PART- C (1x 10=10Marks)

(Q.No.16 is compulsory)

		Marks	CO	RBT LEVEL
16.	Create a flowchart illustrating the process of booking a movie ticket via telephony application programming interface (API) with a server.	**(10)**	**1**	**3**

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