

**B. TECH.****THEORY EXAMINATION (SEM-VIII) 2016-17****WIRELESS & MOBILE COMMUNICATION****Time : 3 Hours****Max. Marks : 100****Note : Be precise in your answer. In case of numerical problem assume data wherever not provided.****SECTION – A****1. Attempt all parts of the following questions: 10 x 2 = 20**

- (a) If  $I = 3$  and  $J = 0$  What is the cluster size in cellular system.
- (b) What is mean by frequency reuse?
- (c) Define Brewster angle?
- (d) What is Handoff?
- (e) Mention two services aspects in IS 95
- (f) What are the signalling features in GSM.
- (g) What is the reason behind the name -Bluetooth?
- (h) Give two examples for Wi- Fi technology?
- (i) What is demerit of ad hoc network?
- (j) What are the three main wireless technologies?

**SECTION – B****2. Attempt any five of the following questions: 5 x 10 = 50**

- (a) Explain the different type of channel assignment strategies.
- (b) Explain the different type of diversity technique used in wireless communication system.
- (c) Explain the term Evolution of mobile radio communication fundamentals.
- (d) Why Next Generation Network are important & Explain the Next Generation Network in detail.
- (e) Explain Mobile AD –HOC Network in wireless communication
- (f) Draw and explain the Rake Receiver in detail using proper block diagram
- (g) Explain the frequency hopped multiple access & code division multiple access technology.
- (h) Explain the different type of fading in wireless communication.

**SECTION – C****Attempt any two of the following questions: 2 x 15 = 30**

1. Explain the different type of vocoders in wireless communication.
2. Explain the different type of equalization techniques used in wireless communication.
3. Explain the term GSM in detail in mobile radio communication using system architecture