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:

 $10 \times 2 = 20$

- (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:

 $5 \times 10 = 50$

- (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:

 $2 \times 15 = 30$

- 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