

**APJ Abdul Kalam Technological University**  
**Seventh Semester B.Tech (Honors) Degree Examination, December 2019**  
**Course code: 02EC7221.4**  
**Course Name: WIRELESS SYSTEMS AND STANDARDS**

Time: 3 Hrs

Max. Marks: 60

**PART A**

*(Answer All Questions)*

1. Explain the working of WLL
2. (a) Explain the working of Zigbee  
(b) An AMPS cellular service provider is allocated 12.5 MHz for each simplex band. If the guard band is 10kHz on either end, find the total number of channels available in the system?
3. Distinguish between EDGE and EVDO
4. Explain the architecture of GSM with a neat diagram. **(4x9=36)**

**PART B**

*(Answer Any Two from each question)*

5. (a) Explain the UMTS network architecture with a neat diagram  
(b) Draw the block diagram of a single antenna-based Software Defined Radio (SDR) system transmitter and receiver. Explain the functions of each of the block.  
(c) Distinguish between WCDMA and CDMA 2000.
6. (a) Explain the features of Ultra-Wide Band communication  
(b) Explain the operation of MANET and give its challenges  
(c) Explain the architecture of HIPERLAN

**(2x12=24)**