

GANPAT UNIVERSITY**M. TECH. SEM- II (Electronics and Communication Engg.) REGULAR EXAM APRIL –JUNE 2015****Regular Examination (CBCS New)****(3EC 203) ADVANCED WIRELESS COMMUNICATIONS****Time: 3 Hours****Total Marks: 60**

- Instructions:** (1) This Question paper has two sections. Attempt each section in separate answer book.
 (2) Figures on right indicate marks.
 (3) Be precise and to the point in answering the descriptive questions.

Section - I

- Que. – 1** (A) List four technical challenges of wireless communications. Explain any two of them in detail. **6**
 (B) What is importance of link budget in wireless communications? Explain in complete detail with example. **4**

OR

- Que. – 1** (A) Compare broadcast technology with cellular telephony. **5**
 (B) Explain the use of concept of reflection, diffraction and scattering in wireless technology. **5**

- Que. – 2** (A) What is importance of Fresnel zone in microwave planning? Explain. **3**
 (B) Explain common characteristics of outdoor propagation model. **7**

OR

- Que. – 2** (A) Explain importance of Doppler shift in CDMA system planning. **5**
 (B) Compare small scale fading with large scale fading. **5**

- Que. – 3** (A) Write short notes on fast fading and slow fading. **5**
 (B) Explain rayleigh fading with ricean fading concept in communication. **5**

Section – II

- Que. – 4** (A) Compare GSM technology with CDMA one technology. **3**
 (B) Explain evolution of 2G technologies to 4G Technologies for Wireless Communicaton. **7**

OR

- Que. – 4** (A) How a cellular telephone call is made? Explain with help of diagram. **5**
 (B) How you will install any sophisticated communication equipment at the site? Explain in complete detail. **5**

Que. – 5 (A) How shelter size is decided by the implementation team of GSM BTS site. 5

(B) Write short notes on smart antenna giving its importances. 5

OR

Que. – 5 (A) What is importance of MIMO technology now a day? Explain in complete detail. 5

(B) Write short notes on PAPR. Why it is hot topic for research now a day? 5

Que. – 6 (A) What is adaptive modulation? Give briefing on it. 5

(B) How signal is processed in different manner for different methods of diversity? Explain with help od diagrams 5

END OF PAPER