

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]

Dec.-22-0272

EC-606 (Wireless & Mobile Communication)

B.Tech. 6th (CBCS)

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all, selecting one question from each section A, B, C and D. Question no. 9 is compulsory.

SECTION - A

1. (a) Describe Wireless Communication Systems.
(b) Describe Cell splitting and sectoring with respect to capacity improvement. (10)
2. (a) Describe different handoff strategies.
(b) Describe the structure of a wireless communication link. (10)

SECTION - B

3. (a) What is the term Fading means? How it is classified?
(b) Describe the principle of Diversity and explain Macro and Micro diversity. (10)
4. (a) Explain different design parameters at Base station.
(b) Describe Free space path loss model. (10)

SECTION - C

5. (a) What are the features of different types of Adhoc networks?

2

EC-606

- (b) Explain wireless sensor networks briefly. (10)
6. (a) Draw GSM architecture's block diagram and shortly explain function of each block.
(b) Discuss different GSM channel types. (10)

SECTION - D

7. (a) Differentiate between FDMA and OFDMA.
(b) Explain different spread spectrum methods in brief. (10)
8. (a) Define WCDMA and CDMA.
(b) Describe HLAN and WLAN briefly. (10)

SECTION - E

9. Write short notes on:-
 - (a) Frequency reuse concept
 - (b) Hata Model
 - (c) Path loss components
 - (d) Knife edge diffraction model
 - (e) Features of VANETS.
 - (f) LTE.
 - (g) Applications of OFDMA.
 - (h) Near field communication.
 - (i) MC-CDMA.
 - (j) GPRS. (10×2=20)