

Government College of Engineering, Amravati
(An Autonomous Institute of Government of Maharashtra)

Fourth Semester B. Tech. (CS/IT)

Summer – 2018

Course Code: ITU402

Course Name: Data Communication

Time: 2 hr. 30min.

Max. Marks: 60

Instructions to Candidate

- 1) All questions are compulsory.
- 2) Assume suitable data wherever necessary and clearly state the assumptions made.
- 3) Diagrams/sketches should be given wherever necessary.
- 4) Figures to the right indicate full marks.

Q.1 Solve the following. 12
(a) Explain OSI Reference model with neat figure.

(b) Define transmission medium. How do guided media differ from unguided media?

Q.2 Solve any two of the following. 12
(a) What is multiplexing? Explain TDM.

(b) Explain non uniform quantization and how to recover original signal using PCM decoder.

(c) Explain analog to analog conversion in details.

Q.3 Solve any two of the following. 12

Contd

- (a) Explain phase shift keying in detail. Compare it with FSK.
- (b) What is a draw back of Go Back-n protocol? How it is overcome in the selective repeat protocol.
- (c) Define and explain the concept of Wavelength division multiplexing.

1.4 Solve any two of the following. 12

- (a) Explain character oriented protocol in details.
- (b) Explain the role of Hamming code in error detection and correction with example.
- (c) Explain message switching in details.

1.5 Solve the following. 12

- (a) Explain flow control and error control.
- (b) Differentiate between circuit switching and packet switching