

2019

MSc

4th Semester Examination

COMPUTER SCIENCE

PAPER – COS-402(M2)

Full Marks : 25

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their
Own words as far as practicable.

Illustrate the answers wherever necessary.

(Turn Over)

Group- A

1. Answer any **TWO** questions:

2x2

- a) What is mobile computing?
- b) What is subnet?
- c) Write the functions of CRC field in Ethernet frame.
- d) What is multipath propagation of Signal?

Group- B

2. Answer any **TWO** Questions:

2x4

- a) Find data (transmission) rate that can be used at each carrier frequency? Where Each time slot carries 324 bits.
 - There are 6 timeslots/ frame.
 - 1 frame is 40 ms.
- b) Describe the method of subnet Segmentation for IPv4.
- c) Write exponential Backoff algorithm for finding waiting time for handling collision in multi- access link.
- d) Write short note on following topics (Any **ONE**)
 - i) Reuse factor
 - ii) GSM
 - iii) MAC Vs Multiplexing
 - iv) Challenges in mobile computing

Group-C

3. Answer any **ONE** question. 1x8
- a) Write the functionalities of ALOHA.
Write the differences between ALOHA and slotted ALOHA.
Write the applications of slotted ALOHA. 4+2+2
- b) What is CSMA? Write different types of CSMA schemes. Describe working principles of CSMA/CD. 2+2+4

[INTERNAL ASSESMENT – 5]