## 2019

## MSc

## 2<sup>nd</sup> Semester Examination

## COMPUTER FUNDAMENTAL

PAPER - COS-204(M1)

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.

- 1. Answer any TWO questions
- a) Perform (52)10 (27)10 using 2's complement method.
- b) Perform  $(156)_8 + (262)_{10} + (1A)_{16} = (?)_{10}$
- c) What are the advantages and disadvantages of machine language?
- 2.
- a) What is the maximum positive and maximum negative number can be 2+2+3+3 Represented using 14 bit representation?
- b) What is mnemonic?
- c) What are the functions of CPU?
- d) How fraction numbers are represented in computer?
- 3.
- a) What is algorithm? What are the characteristics of an algorithm? (1+5)+4
- b) Write an algorithm/flow chart to find the GCD of two numbers.
- 4.
- a) Define data structure.

2+3+3+2

3+3+(2+2)

- b) What is the difference between linear data structure and non-linear data structure?
- c) Write an algorithm for PUSH operation of stack.
- d) Represent 1TB into bits.