2019

B.Sc.

1st Semester Examination

COMPUTER SCIENCE (Honours)

Paper - GE 1-T

Full Marks : 40 Time : 2 Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

1. Answer any *five* questions of the following : 5×2=10

   (a) What is the advantages of high level language over assembly language ?

   (b) What is utility software ?

   (c) $(1021)_3 = (?)_5$

   (d) What is the use of SMPS ?

   (e) Write down the difference between SRAM and DRAM.

(f) What is open source software ?

(g) What is cache memory ?

(h) Write the difference between volatile memory and non volatile memory ?

2. Answer any *four* questions of the following : 4×5=20

(a) Perform subtraction using 2's complement method

$(11010)_2 - (10000)_2$

Explain the meaning of the term "memory dump". 3+2

(b) What is Microprocessor, explain in detail. 3

Find the octal equivalent of the following binary numbers.

(i) 1101011 (ii) 11010 2

(c) Explain with block diagram ALU. 2

Explain in brief Bar Coding. 3

(d) Write short note on : OMR and OCR. 2½+2½

(e) What is operating system ? What is time sharing operating system ? Write the process state. 1+2+2

(f) Write short note on : Flash memory, Computer Security. 2½+2½

3. Answer any *one* of the following question : 10×1

(a) (i) Discuss cloud service model.

(ii) Short note on : Bluetooth Technology. 5+5

(b) What do you know about the term "Big Data" ? What are the five V's of Big Data ? What is data mining ? 3+4+3