

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)**

**CLASS: IMSC
BRANCH: CHEMISTRY**

**SEMESTER: II
SESSION : SP/2019**

SUBJECT : CS270 FUNDAMENTAL OF COMPUTERS

TIME: 2.00 HOURS

FULL MARKS: 25

1. The total marks of the questions are 25.
 2. Candidates may attempt for all 25 marks.
 3. Before attempting the question paper, be sure that you have got the correct question paper.
 4. The missing data, if any, may be assumed suitably.
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- Q1 (a) Differentiate different generation of Computer with respect to software development. [2.5]
(b) Explain, how data transfer takes place using E-mail. [2.5]
- Q2 (a) Explain with a block diagram of a computer and explain the functions of each Block. [2.5]
(b) Evaluate : [2.5]
(i) $(111.011)_2 + (111.011)_8 + (111.011)_{16} + (111.011)_{10} - (111.11)_2 = ()_2$
(ii) Using 2's complement
 $(12)_{10} - (91.11)_{10} = ()_2$
- Q3 (a) Explain execution cycle for Pipelining Computer. [2.5]
(b) Outline with the help of a diagram, how Serial Access Memory working. [2.5]
- Q4 (a) Distinguish between ROM, RAM and EEPROM. [2.5]
(b) Outline the role of interrupts. [2.5]
- Q5 (a) Differentiate between Top-Down approach and Bottom-Up approach. [2.5]
(b) Write and algorithm for Bubble Sort. [2.5]

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