MCA.I/12.15.1089 Reg.No. | | | | | | | | |

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MCA DEGREE I SEMESTER EXAMINATION DECEMBER 2015

CAS 2101 INTRODUCTION TO COMPUTER SCIENCE

(*Regular*)

Time : 3 Hours Maximum Marks : 50

PART A

(Answer ***ALL*** questions)

(15 × 2 = 30)

I. (a) Covert $(145.125)_{10}$ into ($)_2$.
(b) Write a note on various methods of representing characters.
(c) Covert $(E0B1D2)_{16}$ into ($)_{10}$.

II. (a) Find the 2's complement representation of $(101011.1011)_2$.
(b) Write a note on characteristics of various types of memories used in computers.
(c) Write the structure of an instruction.

III. (a) What is meant by BUS architecture?
(b) Write a note on database VIEW.
(c) What is virtual memory? What is its usage?

IV. (a) Write the features of microkernel based operating system.
(b) Write a note on public switched telephone networks.
(c) What is meant by data multiplexing?

V. (a) Write a note on raster scan display processing unit.
(b) What is meant by interactive graphics system?
(c) Differentiate between distributed networking and peer to peer computing.

PART B

(5 × 4 = 20)

VI. Write a note on fraction representation in computer memory.

OR

VII. Explain various error detecting codes.

VIII. Describe the biased and normalized methods of representing floating point numbers in computer memory.

OR

(P.T.O.)

IX. Write the range of numbers that can be represented using 8 bits in Signed, I's Complement and 2's Complement methods.

X. Compare the file oriented approach and database oriented approach of database systems.

OR

XI. Explain various types of computer languages and mention its merits and demerits.

XII. Describe the functions of an operating system.

OR

XIII. Explain open system interconnection model?

XIV. Explain the terms grid computing and cloud computing.

OR

XV. Explain the storage formats for pictures.

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