

**M.C.A. SEM - I (CHOICE BASED CREDIT SYSTEM 2011 & 2012
COURSE) : SUMMER - 2018
SUBJECT : BASICS OF SOFTWARE DEVELOPMENT SKILLS**

Day : **Tuesday**
Date : **24/04/2018**

S-2018-1782

Time : **02.00 PM TO 05.00 PM**
Max. Marks : 100

N.B.:

- 1) Attempt **ANY FOUR** questions from Section – I and **ANY TWO** questions from Section - II.
- 2) Answers to both the sections should be written in the **SAME** answer book.
- 3) Figures to the right indicate **FULL** marks.

SECTION – I

- Q.1** a) Draw block diagram of CPU. Explain working of ALU. [07]
b) What do you mean by system? Explain its characteristics with example. [08]
- Q.2** a) Write note on: i) Input Devices ii) Output Devices. [08]
b) What is Operating System? Describe Windows Operating System in detail. [07]
- Q.3** a) “Communication protocols play vital role in networking”. Comment on the statement with justification. [07]
b) Explain different types of topologies with suitable diagram. [08]
- Q.4** What is Database Management System? Explain working of database management system in detail. Explain any two applications of database management system. [15]
- Q.5** What do you mean by abstraction? Describe problem abstraction with suitable example. [15]
- Q.6** Write notes on **ANY THREE** of the following: [15]
a) Expert Systems
b) Client – Server Computing
c) Routers
d) Flowchart

SECTION – II

- Q.7** What is mean by sorting? Why it is needed? Explain bubble sort in detail with suitable example. [20]
- Q.8** a) Convert the following (**ANY FOUR**): [08]
i) $843_{(10)} = ?_{(2)}$
ii) $5673_{(10)} = ?_{(8)}$
iii) $101101_{(2)} = ?_{(10)}$
iv) $A03F_{(16)} = ?_{(2)}$
v) $1246_{(8)} = ?_{(10)}$
b) Solve the following (**ANY THREE**): [12]
i) Find 2’s complement of 11010110
ii) $100101 + 10101 = ?$
iii) $1011.01 \times 110.1 = ?$
iv) $1101 / 11 = ?$
- Q.9** a) “Computer privacy and security is a need of an hour in Information Technology”. Illustrate the statement with justification. [10]
b) Differentiate between Procedure Oriented and Object Oriented approaches. [10]

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