

**M.C.A. SEM - I (CHOICE BASED CREDIT SYSTEM 2011 &  
2012 COURSE ) : WINTER - 2017  
SUBJECT : BASICS OF SOFTWARE DEVELOPMENT SKILLS**

Day : **Thursday**  
Date : **09/11/2017**

**W-2017-1685**

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) What is System? Explain types of Systems? [07]  
b) What is Data transmission media? Explain types of Networks. [08]
- Q.2** With the help of block diagram, explain Operating System and its working. [15]  
Mention types and examples of operating systems in detail.
- Q.3** Define and explain the terms (**ANY THREE**): [15]  
a) ASCII  
b) Top – down approach of problem solving  
c) Recursive algorithm  
d) Expert systems
- Q.4** a) What are Computer Languages? Discuss the importance of object oriented [07]  
programming in detail.  
b) Explain in detail Client-Server computing. [08]
- Q.5** What is abstraction? Explain the types of abstraction with examples. [15]
- Q.6** Write notes on **ANY THREE** of the following: [15]  
a) BCD representation  
b) CPU  
c) MODEM  
d) Application software

**SECTION – II**

- Q.7** Write the importance of sorting. Explain in detail the bubble sort with example. [20]
- Q.8** a) Convert the following: [12]  
i)  $2012_{(8)} = ?_{(2)}$   
ii)  $A4CE_{(16)} = ?_{(10)}$   
iii)  $101011.1011_{(2)} = ?_{(10)}$   
iv)  $212_{(10)} = ?_{(2)}$   
b) Find 2's and 1's complement of binary numbers: [08]  
i) 10111111      ii) 10101101
- Q.9** What are the components of Information Technology? Explain the importance [20]  
of information technology in the field of today's education. How does  
information technology impact on the educational developments?

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