BACHELOR OF COMPUTER APPLICATIONS (BCA) (Revised)

Term-End Examination

05021   **June, 2017**

BCS-011 : COMPUTER BASICS AND PC SOFTWARE

Time : 3 hours   *Maximum Marks : 100*

(Weightage : 75%)

Note : Question number 1 is **compulsory** and carries 40 marks. Attempt any **three** questions from the rest.

1. (a) Convert the following decimal numbers to binary number and hexadecimal number :   4

   (i)   57

   (ii) 0·215

   (b) How is the access time on a disk defined ? Explain the components of access time with the help of an example.   5

   (c) Explain the components of a memory system and the role of cache memory in the memory hierarchy.   6

   (d) List any four application softwares. Explain the purpose of each.   6

(e) Draw a flow chart for a program that calculates the area of a circle.   6

(f) What is a Blog ? What are the merits and demerits of blogging ?   4

(g) List three categories of a search engine with the help of an example. What is indexing in the context of a search engine ?   5

(h) Explain the advantages and disadvantages of e-learning.   4

2. (a) What is an Operating System ? List and explain any four services/functions of an operating system.   6

(b) What are the characteristics and advantages of a Local Area Network ? Explain any one LAN topology with the help of a diagram.   8

(c) Define the term 'Open Source Software'. Explain any two important features of the model used for open source software development.   6

3. (a) Discuss the following in brief :   8
   (i) Assembler
   (ii) Editor
   (iii) Interpreter
   (iv) Compiler

(b) What is port ? Explain the characteristics of Parallel, Serial, USB and Small Computer System Interface ports. 8

(c) What are the security threats related to Internet ? How can they be prevented ? 4

4. (a) What is data transmission channel ? Compare and contrast Guided and Unguided channels. 8

(b) Compare and contrast the following : 8

   (i) SRAM versus DRAM

   (ii) SIMM versus DIMM

   (iii) ROM versus PROM

   (iv) CD-ROM versus USB Drive

(c) What is a URL ? Explain with the help of a an example, the need of DNS in Internet. 4

5. Explain any *five* of the following with the help of an example/diagram, if required : 5×4=20

(a) Network Interface Card

(b) Word Processing

(c) Collaboration in the context of Internet

(d) Router and Switches

(e) Activities in Software Project Management

(f) Two Data Entry Devices

(g) Cookies in the context of Browser Software