BACHELOR OF COMPUTER APPLICATIONS (BCA) (Revised)

Term-End Examination

June, 2018

01475

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 binary numbers to equivalent decimal and hexadecimal numbers :   4

    (i) $(1011\ 0101)_2$

    (ii) $(0010\ 1110)_2$

    (b) Explain static RAM and dynamic RAM. How are they different from each other ?   5

    (c) Explain the concept of von Neumann architecture with the help of a diagram.   5

    (d) Draw the flow chart to find if a given number is divisible by 2 or not.   6

(e) Explain the role of a linker and text editor software. *4*

(f) Explain the purpose of timesheet management in the context of project management software. *3*

(g) Define the term Search Engine in the context of Internet. Explain spidering and indexing actions performed by a search engine. *5*

(h) Explain the uses of radio waves and micro-waves for data transmission. *4*

(i) Explain the purpose of any four folders used in an email account. *4*

2. (a) Explain the need of memory hierarchy with the help of an example. Explain the advantages and disadvantages of using CD-ROM as a secondary storage device. *6*

(b) What is the role of Operating System of a computer ? Define the term "Kernel" of an operating system. What are the uses of GUI and Input/Output control system for an operating system user ? *8*

(c) How can Moodle be used for e-learning ? List the advantages and disadvantages of e-learning. *6*

3. Compare and contrast any *five* of the following : 5×4=20

   (a) Ring topology and Star topology

   (b) Social networking and Blogging

   (c) Macro and Functions in the context of spreadsheets.

   (d) Compiler and Assembler

   (e) Laser printing and Inkjet printing

   (f) Mouse and Graphics tablet

4. (a) How do you define the access time on a magnetic disk ? Explain with the help of an example. Why is access time of magnetic tape higher than magnetic disk ? Explain. 6

   (b) Explain the purpose of TCP/IP protocols. Also explain the concept of IP addresses and web addresses, with the help of an example of each. 7

   (c) Explain the concepts of one-dimensional array with the help of an example. 4

   (d) Explain the conditional statement with the help of an example. 3

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

   (a) Uses of any two utility softwares

   (b) Configuration of a laptop computer

   (c) Supercomputer

   (d) Open source software

   (e) Time-sharing system

   (f) Computer virus

   (g) Firewall in the context of networking

   (h) Characteristics of Metropolitan Area Network (MAN)