BACHELOR OF COMPUTER APPLICATIONS (BCA) (Revised)

Term-End Examination

07442 **June, 2019**

BCS-011 : COMPUTER BASICS AND PC SOFTWARE

Time : 3 hours

Maximum Marks : 100

(Weightage : 75%)

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

1. *(a)* Your computer has an IP address of 202.41.15.57. You are planning to communicate with a computer on the same network that has an IP address of 202.4.1.15.116. What is the subnet mask ? *4*

   (b) What is the OSI model ? List the layers of the model from the lowest layer upwards. *4*

   (c) Write down the 9 logical and relational operators in C, giving the function of each. 5

(d) What is a compiler ? Draw a diagram showing the different stages of the program compilation process.

(e) Let x = 6 and y = 5. What are the values of   5

    (i)   x! = y

    (ii)   x < y

    (iii) x % y

    (iv) (x > 6) I I (y ! = 5)

(f) What is meant by the configuration of a Personal Computer ? Write down the configuration of a typical workstation used for software development work.   *6*

(g) What is the desktop in a Personal Computer ? What are the items typically found in it ?   *4*

(h) List the five parts of a communication system and mention the role of each.   *6*

2. (a) Explain, with the help of a diagram, the process of developing content for an e-learning course.   *8*

    (b) List the features of second and third generation computers.   6

    (c) What is the function of the memory management system of a computer ? Explain the primary tasks it needs to perform.   *6*

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3. (a) Discuss the following briefly :   *8*

      (i)   Batch processing

      (ii)   Online processing

            Diskless workstations

      (iv) Operating system kernel

  (b)   Describe the structured and modular design

       paradigm with the help of a diagram and

       pseudo code.   *8*

  (c)   What is volunteer computing ? Give an

       example of such computing.   *4*

4. (a) Draw the block diagram of a computer

       system and briefly explain the function of

       each of the main components.   *8*

  (b)   What is a linker ? Explain its function with

       the help of a diagram.   *4*

  (c)   Describe   each   of   the   following

       communication modes, bringing out the

       similarities and differences among them :   *8*

      (i)   Broadcast

      (ii)   Simplex

      (iii) Half-duplex

      (iv) Duplex

5. Explain any *five* of the following with the help of examples or diagrams wherever required : *5x4=20*

   (a)   Hark disk defragmenter utility

   (b)   Video card of a Personal Computer

   (c)   Timesheet Management System

   (d)   Ring network topology

   (e)   Device drivers

   (f)   Infra-red communication

   (g)   Magnetic ink character recognition