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BCS-011

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 **1** 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 202.41.15.116. 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. 6

(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) | | (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

3. (a) Discuss the following briefly : 8

(i) Batch processing

(ii) Online processing

(iii) 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 : *5×4=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