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**BCS-011**

**BACHELOR OF COMPUTER  
APPLICATION (REVISED) (BCA)**

**Term-End Examination**

**June, 2020**

**BCS-011 : COMPUTER BASICS AND PC  
SOFTWARE**

*Time : 3 Hours*

*Maximum Marks : 100*

*Weightage : 75%*

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*Note : (i) Question No. 1 is compulsory and carries  
40 marks.*

*(ii) Attempt any three questions from the  
rest.*

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1. (a) Convert the following as asked : 6

(i)  $(0.375)_{10}$  to equivalent binary.

- (ii)  $(1010\ 1101)_2$  to equivalent decimal
- (iii)  $(F2B)_{16}$  to equivalent binary
- (iv)  $(1001\ 1101)_2$  to equivalent hexadecimal
- (b) A computer system has CPU that processes data and input/output devices that perform the job of Input and Output of data, then why does a computer need RAM which is just a temporary memory? 4
- (c) Explain the characteristics of I/O devices that will be needed for the following: 4
- (i) A printed page is to be converted to electronic form without retyping it.
- (ii) A printed bill has bar-code, which is to be read to get all the payment details.

- (iii) A device that will print very high quality and high precision graphs and pictures of different sizes.
- (iv) A device that is required to record voice.
- (d) What is the role of operating system ?  
Explain the role of memory management in operating system. 4
- (e) You need to write a program in a programming language like C or C++ and execute it using your computer. Which software will you need for this purpose ?  
List the features of all the software that you will need to do so. 5
- (f) Draw a flow chart to input three numbers and find the largest amongst them. 5

- (g) What are the characteristics of optical fiber cable ? What are the advantages and disadvantages of optical fiber ? 4
- (h) What is the role of DNS ? Explain with the help of an example. 4
- (i) Explain the role of any *two* folders that are part of your e-mail account. 4
2. (a) Explain data organization of a disk with the help of diagram(s). 6
- (b) What is an open source software ? Explain open source development model. 6
- (c) Explain the role of the following network devices : 8
- (i) Network Interface Card
  - (ii) Modem
  - (iii) Hub
  - (iv) Router

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

- (a) SRAM and DRAM
- (b) Parallel port and Serial port
- (c) Subroutines and Functions
- (d) Word processing and Spreadsheet software
- (e) Primary search engines and Meta search engines
- (f) Microwave transmission and Infrared transmission

4. (a) What is collaboration in the context of Web application ? What is Wiki ? What are its characteristics ? List various activities for which Wiki can be used. 6

(b) What is cloud computing ? Discuss key features of cloud computing. 6

- (c) Explain the Von Neumann architecture of a computer with the help of a diagram. 5
- (d) What is an Integrated circuit ? What are the advantages of using Integrated circuits ? 3
5. (a) What is op-code in an Instruction of a computer ? Explain with the help of an example. 3
- (b) Give *one* example each of volatile and non-volatile memory. 2
- (c) What is the role of video card of a computer ? 2
- (d) What are the uses of mail merge feature of word processor ? Explain with the help of an example. 5

- (e) Explain the term batch processing in the context of operating system. 3
- (f) What is a browser ? What are its features ?  
How does a browser communicate with web server ? 5