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BCS-011

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

Term-End Examination

December, 2023

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

Time : 3 Hours

Maximum Marks : 100

(Weightage : 75%)

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

(ii) *Attempt any **three** questions from the
Question No. 2 to 5.*

P. T. O.

1. (a) Convert the following as asked : 6
- (i) $(0.0125)_{10}$ to equivalent binary
 - (ii) $(10011111)_2$ to equivalent decimal
 - (iii) $(FA5)_{16}$ to equivalent binary
 - (iv) $(1001\ 0110\ 1110)_2$ to equivalent hexadecimal
- (b) A computer system has large RAM, still it requires secondary storage. Why ? Explain. 4
- (c) Explain the use and characteristics of the following input-output devices : 4
- (i) Bar Code Reader
 - (ii) Speaker and Microphone
- (d) Explain why an operating system is needed in a computer system. Differentiate between the system software and application software. 5

- (e) What is an algorithm ? What are the three control statements in the context of algorithm ? Explain each statement with the help of an example. 7
- (f) List any *two* features of a spreadsheet software. 2
- (g) Explain the ring topology of local area networks. List its advantages and disadvantages. 6
- (h) Explain the purpose of any *four* folders that are available in an email software. 4
- (i) List any *four* features of a social networking website. 2
2. (a) What are the different components of a computer ? Explain the role of each component with the help of a diagram. 6

P. T. O.

- (b) Differentiate between the following : 8
- (i) CD-ROM and Hard disk
 - (ii) Seek time and Latency time in the context of access time
 - (iii) Cache memory and Main memory
 - (iv) Transistor and Vacuum tube
- (c) What is a port ? Explain the uses of parallel port, serial port, universal serial bus and SCSI port. 6
3. (a) Explain the three-tier client-server architecture with the help of a diagram. 5
- (b) What is multiprogramming ? How is it different from batch processing ? Explain. 5
- (c) Explain the concept of one-dimensional and two-dimensional arrays with the help of an example pseudo code of each. 5

- (d) Explain the features of word processing application. 5
4. (a) Explain the characteristics of a Wide Area Network. How is a WAN different to a LAN ? Explain. 5
- (b) What is the need of TCP/IP ? What is a URL ? How is URL different to an IP address ? Explain with the help of an example. 5
- (c) What is the role of a browser software ? What is a search engine ? How does a search engine collect information about web page ? 5
- (d) What are the characteristics of a WIKI ? What are the different advantages of using a WIKI ? 5

5. Explain the following with the help of a diagram/example; if needed : $5 \times 4 = 20$

- (a) Features of E-learning
- (b) Perverse Software
- (c) Features of project management software
- (d) Different types of printers
- (e) Disk checkers and disk defragmenters