

No. of Printed Pages : 6 **BCS-011/BCS-111**

**BACHELOR OF COMPUTER
APPLICATIONS**

(BCA-Old/New)

Term-End Examination

June, 2026

**BCS-011/BCS-111 : 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 rest.*

1. (a) Write short notes on the following :

5×2=10

(i) VPN

- (ii) Assembler
 - (iii) Job scheduling
 - (iv) Repeater
 - (v) Software reliability
- (b) What is a switch in networking ?
Explain how it is superior to a hub. 5
- (c) What are the different types of internet addresses ? Explain with the help of *one* example of each. 6
- (d) Draw a diagram/graph to represent an analog and a digital signal. Explain the difference between the two. 5
- (e) A magnetic tape is 1 meter long. What must be the recording density of the tape in bytes/inch, if its storage capacity has to be 50 MB ?
(Take 1 inch = 2.50 cm) 6

- (f) Describe the function of a linker with the help of a diagram. 4
- (g) What is the function of performance enhancement utilities ? Describe the working of any *three* of them. 4
2. (a) Draw a diagram of a twisted pair cable and explain it briefly. List *two* advantages and *two* disadvantages of twisted pair cabling as compared to other guided transmission media. 6
- (b) You need to print the sentence “The sun rises in the east” five times. Write two program fragments to do this. Each must use a different way of achieving the desired result. 5
- (c) Write down the steps you would follow to find out the configuration of the PC you are working on. 5

- (d) List the steps the operating system follows to execute a program. 4
3. (a) You sent a hard disk containing 1 TB of data to your friend in another city by courier. He received it 36 hours after the time you handed it over for sending. What is the data transmission speed ? 5
- (b) What is the Domain Name System (DNS) ? Describe the steps involved in translating a website address to the corresponding IP address. 8
- (c) Consider a hypothetical computer which has 4-bit opcodes. The ‘multiply’ instruction has the opcode 0101. It takes two positive integer operands, each being from 0 to 255, which is 8- bits. Write the 20-bit machine language instruction to find 49×207 . 7

4. (a) Define what a project is. What are the roles and responsibilities of a project manager ? Describe briefly how a software project is managed. 6
- (b) Describe the characteristics and uses of ROM. How is a PROM different from a ROM ? 7
- (c) List and describe the structure of a loop in programming. Write a program fragment to list the even numbers from 2 to 100 using a 'while' loop. 7
5. (a) Explain the *three* concepts that characterize Object Oriented Programming. 6
- (b) In Microsoft Word, explain the steps required to create a table having 7 rows and 4 columns. How can you add a new row to table that has already been created ? How can you delete a row from an existing table ? 6

- (c) What is the ASCII code ? Explain its main characteristics. How does Unicode enhance the ASCII standard ? Describe its features. What are the main goals of the Unicode Consortium ? 8

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