

Roll No.

Total Pages : 4

204101

December, 2019

BCA- 1 SEMESTER

Computer & Programming Fundamentals (BCA-17-101)

Time : 3 Hours]

[Max. Marks : 75

Instructions :

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
2. *Answer any four questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART - A

1. (a) Give the full form of the following :
USB, VGA, ASCII. (1.5)
- (b) A sine wave completes one cycle in 50 micro seconds.
What is its frequency? (1.5)
- (c) What are various types of errors occurred while programming? (1.5)
- (d) What is the modular approach of programming? (1.5)

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- (e) What is the difference between Algorithm and Flow Chart? (1.5)
- (f) What are the various applications of Computer System? (1.5)
- (g) Differentiate between Problem Oriented & Procedure Oriented languages. (1.5)
- (h) What is the difference between primary memory and secondary memory? (1.5)
- (i) What are various applications of Internet? (1.5)
- (j) Differentiate between LAN, MAN, WAN. (1.5)

PART - B

2. (a) Draw the block diagram of Computer System explaining various functional components of it? (8)
- (b) Give the classification of computer systems. (4)
- (c) What are the characteristics of Computer System? (3)
3. (a) Define an Operating System? What are various functions performed by an operating system? (8)
- (b) Write an algorithm to measure 4 litres of water when only 3 litres and 5 litres jugs are available? (4)
- (c) Explain the following :
Multiprogramming, Multitasking, Multiprocessing. (3)

4. (a) Draw a flow chart to find out the largest number out of given three numbers. (6)
- (b) Differentiate between the following :
(i) Application Software & System Software.
(ii) Single user operating system vs. Multiuser operating System. (4)
- (c) What is Computer Virus? What are different types of viruses? (5)
5. (a) Draw a flow chart to print N terms of Fibonacci series. (5)
- (b) Write an explanatory note on programming languages. (5)
- (c) What are the desirable features and characteristics of an algorithm? (5)
6. (a) Define the following :
(i) Assembler
(ii) Compiler
(iii) Interpreter
(iv) Linker
(v) Loader. (5)

- (b) What are the attributes of a good program design? (5)
- (c) Define Computer Network? What are the basic components of a data communication system? (5)
7. (a) Define the following: Amplitude, Time Period, Frequency and Bandwidth? (4)
- (b) Write an explanatory note on Network Topology. (6)
- (c) What is data highway? What are various modes of data transmission? (5)
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