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**Total No. of Pages: 02**  
**Total No. of Questions: 09**

**B.Tech (Sem.-1<sup>st</sup>&2<sup>nd</sup>)**  
**FUNDAMENTALS OF COMPUTER PROGRAMMING & IT**  
**Subject Code : BTCS-101**  
**Paper ID : [A1108]**

**Time: 3 Hrs.****Max. Marks: 60****INSTRUCTIONS TO CANDIDATE:**

*Attempt five questions from Part-A and Part-B, selecting atleast two from each part. Question No. 1 is compulsory.*

(2x10=20)

1. Give short answers of the following:
  - a. What are the salient features of GUI based operating system?
  - b. What are spreadsheets?
  - c. Differentiate between primary memory and secondary memory?
  - d. What are keywords?
  - e. What are operators? Name the operator in C++ used to allocate a chunk of memory.
  - f. What do you mean by if-else ladder?
  - g. What is recursion? What is its advantage?
  - h. What do you mean by polymorphism?
  - i. What are the different ways to initialize string variables?
  - j. What is the role of strcmp function?

**PART-A**

(8 marks each)

2. Explain the working of a computer system and its associated peripherals.
3. What is operating system? List and explain its functions.
4. Define algorithm. Write an algorithm to check whether a given number is odd or not.
5. Describe various features that can be used while creating power point presentations.

**PART-B**

(8 marks each)

6. What are type modifiers? List and explain various type modifiers available in C++.
7. Describe with the help of examples various decision making statements available in C++.
8. What are the different forms of inheritance supported by C++? Explain them with an example.
9.
  - a) What are default arguments? Why are they used?
  - b) Can we have more than one constructor in a class? If yes, explain the need for such a situation?

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