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Total No. of Pages : 2

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**B.Tech (Sem.-1)**

**FUNDAMENTALS OF COMPUTER PROGRAMMING & IT**

**Subject Code : BTCS-101 (2011 Batch)**

**Paper ID : [A1108]**

**Time : 3 Hrs.**

**Max. Marks : 60**

**INSTRUCTION TO CANDIDATES :**

1. **SECTION-A is COMPULSORY.**
2. **Attempt any FIVE questions SECTION - B & C.**
3. **Select at least TWO questions from SECTION - B & C.**

**SECTION-A**

**(10 × 2 = 20 Marks)**

1. (a) Differentiate between primary memory and secondary memory?  
(b) What are identifiers?  
(c) What are expressions? How are they evaluated?  
(d) What is the use of continue statement?  
(e) What is the difference between while loop and do-while loop?  
(f) Differentiate between call by value and call by reference.  
(g) What are the different ways to initialize string variables?  
(h) What are constructors?  
(i) What do you mean by data abstraction ?  
(j) What is the role of strcmp function?

**SECTION-B**

**( 8 Marks each )**

2. Describe in detail evolution of Internet, its applications and services.
3. What do you mean by GUI? What are the significant features of GUI based operating system?

4. Define algorithm and flowchart. Write an algorithm to check whether a given number is prime or not? Draw its flowchart as well.
5. Describe in detail various secondary storage devices.

**SECTION-C**

**( 8 Marks each )**

6. Describe in detail various decision making statements available in C++.
7. What do you mean by recursion? Making use of recursion, write a C++ program to find factorial of a number.
8. What are the different forms of inheritance supported by C++? Explain them with an example.
9. (a) What is a class? How does it accomplish data hiding?  
(b) Can we have more than one constructor in a class ? If yes, explain the need for such a situation .