

**End Semester Examinations - 2015-16 Even Semester - May 2016**

**14CS1001 Fundamentals of Computing and Programming**

**Set A**

**Time : 3 hrs**  
**Total Marks: 100**

1. a) Solve the following: (12 marks)

1. Determine **hex** equivalent of  $(2327)_8$
2. Determine **binary** equivalent of  $(5AF)_{16}$
3. Determine **hex** equivalent of  $(1100\ 1011)_2$
4. Determine **Decimal** equivalent of  $(B14)_{16}$ .

b) Elaborate various functional components of **basic computer organization** with the help of a neat block diagram. (8 marks)

**OR**

2. a) Write a program to exemplify the **bitwise OR, AND, XOR, NOT, Leftshift** and **Rightshift** operators. (12 marks)

b) Brief about the **primitive data types** available in C with an example. (8marks)

3. a. Write a program to print the first n **Fibonacci numbers** where n is read from the keyboard. (12 marks)

b. Mention the significant differences between **break and continue** statement. (8 marks)

**OR**

4. a. Write a program to find the **average of six subjects** and display the results as follows: (12 marks)

Average	Result
$\geq 35 \ \& \ < 50$	Third Division
$\geq 50 \ \& \ < 60$	Second Division
$\geq 60 \ \& \ < 75$	Third Division
$\geq 75 \ \& \ \leq 100$	Distinction
If marks in any subject less than 35	FAIL

b. Write the significant differences between **while and do-while loop** statement. (8 marks)

5. a) Demonstrate **call by reference** and **call by value** mechanism with an example. (12 marks)

b) Explain about the **types of functions** available in c with suitable coding. (8 marks)

**OR**

6. a) Write a C program to find the **factorial** of a given number using a **recursive** function. (12 marks)

b) Write a short note on **goto** statement. (8 marks)

7. a) Write a C program to **sort** the given array of values in a ascending order. (12 marks)

b) List any four **string functions** with a brief coding. (8 marks)

**OR**

8. a) Tabulate the features of **storage classes** with suitable example. (12 marks)

b) Write a short note on: a) **enum** b) **typedef** (8 marks)

9. a) Write a program to accept the records of ***book structure*** (ISBN, Title and Author) to store and print the book details in the central library of an Institution. (12 marks)
- b) What is ***software piracy*** and how it can be avoided? (8 marks)

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**Wishing you All the Best**

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