

# **Sai Nath University**

## **Assignment For B.Sc-IT 6<sup>TH</sup> Sem.**

The Assignment will consist of two parts, A and B. Part A will have 6 short answer questions(40-60 words) of 4 marks each. Part B will have 6 long answer questions of 5 marks each.

**All questions are compulsory.**

These Assignments should be completed and submitted in written form by the student to his/her respective Faculty/ Examiners. Assignment Submission Dates are:

➤ **June-18**

### **List Of Suggested Questions**

The list of suggested questions is for students to practice. Although optional, we recommend that students solve these questions, as they will help them in preparing for exams as well as in clearing the important concepts of the subject.

### **List of Practical and suggested practical's**

The list of practical's should be done by the students in their Lab Sessions. These are the basic practical's, which each student should be able to do himself independently. While the list of suggested practicals are optional, but it is recommended that students should perform those practical so as to have a thorough knowledge of the subject

### **Education Delivery Schedule (EDS)**

As per University Semester scheme, the minimum contact hours of each paper has been Divided into two hours theory and practical class.

The faculty will maintain this attendance paper wise for his/her batch.

<b>Subject Code</b>	<b>Subject Name</b>
<b>BSIT-601</b>	<b>Software engineering &amp; Project Mgt</b>
<b>BSIT-602</b>	<b>Advance Java</b>
<b>BSIT-603</b>	<b>C# with .NET</b>
<b>BSIT- 604</b>	<b>Mobile Computing</b>
<b>BSIT-605</b>	<b>Software Lab-VI</b>

# **SAI NATH UNIVERSITY**

## **Cover page of Assignment**

ID NUMBER	.....
NAME	.....
COURSE	BSc-IT.....
STREAM	.....
SEM	6 <sup>TH</sup> .....
SUBJECT CODE	.....
SUBJECT NAME	.....

**Assignments will be completed by the Student in his/her own handwriting.**

## **BSIT-601**

### **Software Engineering and Project Management**

#### **Group A**

- 1) Elaborate on Evolution of software?
- 2) Differentiate between prototyping and incremental models.?
- 3) Explain the unified approach to software development. Discuss the merits and demerits of this approach. ?
- 4) Discuss about principal requirements engineering activities and their relationships?
- 5) Define and explain about coupling and cohesion. Also differentiate between them.?
- 6) Discuss the statement, “Abstraction and refinement are complementary concepts?

#### **Group B**

- 7) What is meant by User Interface? What are the three areas that user interface design focuses? Explain them?
- 8) Discuss the importance of user interface design?
- 9) What is an indirect measure? And how are such measures common in software metrics work?
- 10) What is refactoring? Why is it done?
- 11) What is a state machine model? Discuss with an example.?
- 12) What is Object interface specification?

**BSIT-602**  
**Advance Java**  
**Group A**

- 1) Explain the concept of “Result Interface”?
- 2) Explain JFC functionality?
- 3) Why servlet are preferred over CGI?
- 4) Write a servlet to print the reverse of a number?
- 5) Explain the life cycle of servlet? of a given number?
- 6) Explain HttpServletRequest Interface?

**Group B**

- 7) Explain Inter-servlet Communication in details?
- 8) Explain JDBC architecture in details?
- 9) Write a servlet to print the sum of cube
- 10) Explain the life cycle of jsp page?
- 11) Discuss the different jsp action tag?
- 12) What is Scriptlet explain with example?

**BSIT-603**  
**C# WITH .NET**

**Group A**

- 1) What are the building blocks .Net? Explain the relation between .Net Framework and Framework Class Library?
- 2) Define an Assembly? Explain each component of assembly in details?
- 3) Write difference between single file assembly and multiple file assembly?
- 4) Explain how csc.exe command is used to build the C# application on .Net Framework?
- 5) Explain any 5 flag of csc.exe command?
- 6) Explain the following C# Preprocessor directive?
  - i) #Error
  - ii) Conditional Code Compilation

**Group B**

- 7) What is Command Line Debugger?
- 8) Explain with an example static keyword? When used with
  - i) Variable
  - ii) method
- 9) Explain Boxing and UnBoxing in details?
- 10) Explain two different role of this keyword with example?
- 11) Explain with example read only property and write only property?
- 12) What are bugs, errors and Exception?

## **BSIT-604**

### **Mobile Computing**

#### **Group A**

- 1) Explain the role of HLR entity of a GSM network.
- 2) Describe the advantages and disadvantages of WLAN.
- 3) Discuss the concept of tunneling and encapsulation.
- 4) Why standard TCP is not suitable for wireless networks?
- 5) List out the advantages of data broadcast over point-to-point access.
- 6) Describe features of MIDP 3.0?

#### **Group B**

- 7) Show with a diagram the steps involved in a mobile terminated call (a station calling a mobile station) in GSM.
- 8) Give reasons for a handover in GSM and the problems associated with it. Discuss the typical steps for handover and what types of handover can occur?
- 9) Compare SDMA, FDMA, TDMA and CDMA.
- 10) How can we avoid hidden and exposed terminal problems? Explain.
- 11) Explain about power aware computing.
- 12) Explain Query-processing architecture for processing a query using distributed databases?

**BSIT-605**  
**Software Lab-VI**  
**Group A**

- 1) Write a java program to print fibonacci series without using recursion and using recursion.?
- 2) Write a java program to check prime number.?
- 3) Write a java program to check palindrome number.?
- 4) Write a java program to print factorial of a number.?
- 5) Write a java program to check Armstrong number.
- 6) Write a java program to sort an array elements using bubble sort algorithm.?

**Group B**

- 7) Write a java program to perform linear search in java?.
- 8) Write a java program to remove duplicate element in an array?.
- 9) Write a java program to add two matrices.
- 10) Write a java program to transpose a matrix.
- 11) Write a java program to multiply two matrices.?
- 12) Write a java program to find smallest number in an array.?