CERTIFICATE
IN
INFORMATION TECHNOLOGY
(CIT)

ASSIGNMENTS
(July, 2012 & January, 2013)

(CIT-001, CIT-002, CIT-003, and CITL-001)

SCHOOL OF COMPUTER AND INFORMATION SCIENCES
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI – 110068
CONTENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Assignment No.</th>
<th>Maximum Marks</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT-001</td>
<td>CIT/CIT-001/ASSIGN/12</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>CIT-002</td>
<td>CIT/CIT-002/ASSIGN/12</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>CIT-003</td>
<td>CIT/CIT-003/ASSIGN/12</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>CITL-001</td>
<td>CIT/CITL-001/ASSIGN/12</td>
<td>25</td>
<td>6</td>
</tr>
</tbody>
</table>

Important Notes

1. Submit your assignments to the coordinator of your Study Center before the due dates.
2. Assignment submission before due dates is compulsory to become eligible for appearing in corresponding Term End Examinations. For further details, please refer to CIT programme guide.
3. It is essential to fulfill minimum attendance requirement as well as submission of assignment before due date in the case of CITL-001 to become eligible to appear for the corresponding Term End Practical Examination. For further details, please refer to CIT programme guide.
There are four questions in this assignment, which carry 25 marks. Answer all the questions. You may use illustrations and diagrams to enhance the explanations. Please go through the guidelines regarding assignments given in the CIT Programme Guide. The examples, whenever asked to be given, should be different from those that are discussed in the corresponding course material.

Question 1:
(a): What is computer system? Explain why CPU in a computer system is called as the ‘brain’ of a computer system? (2 marks)

(b): What is memory? What is difference between primary and secondary memory? Briefly explain the ‘Memory Hierarchy’ of a computer system? (3 marks)

Question 2:
(a): List and explain commonly used I/O devices in PC. (3 marks)

(b): What is a Flowchart? Explain advantages of Flowchart. (2 marks)

(c): Draw a Flowchart for finding area of a square. Also write C program for the same problem. (3 marks)

Question 3:
(a): What is computer network? Briefly explain different types of computer networks. (3 marks)

(b): What is communication media? Explain how Wireless transmission is different from wired transmission. (3 marks)

Question 4:
(a): What is computer virus? Explain how your PC can be protected from virus attack. (3 marks)

(b): What is need of Network Security? Explain its different elements in Network Security. (3 marks)
There are 4 questions in this assignment. Answer all the questions. The examples, whenever asked to be given, should be different from those that are discussed in the corresponding course material.

**Question 1:** (5 marks)

a) Define the term Knowledge. How do you obtain knowledge from Data? How can you store information? The University like IGNOU stores student admission and examination results related data. What information and knowledge can be obtained from such data such that the University is able to provide better student support?

b) What is ICT? What are the uses of ICT? What is digital divide? Why is it harmful? Suggest ways of reducing digital divide using ICT.

c) What is digital identity? Why is digital identity important? What are the four basic functions addressed by digital identity? Explain each one with the help of an example.

**Question 2:** (5 marks)

a) Explain any two applications that are using e-commerce in India. Explain the advantages and limitations of using e-commerce. Explain various types of e-commerce.

b) What is e-Governance? Explain its usefulness in India. What measures should one consider before going for e-Governance? Explain one application of e-Governance.

c) List at least five applications of ICT for Medical Care. Explain any one of these applications.

**Question 3:** (5 marks)

a) Explain the steps for the development of Information System. What are the different kinds of MIS?

b) Consider an Airline like Air India, list the requirements for the MIS for such an airline.

c) Study any one ongoing project by NIC; list its objectives, processes, advantages and limitations.
Question 4: (10 marks)
Define the following terms/phrases with the help of an example or a diagram, wherever needed:

a) Components of Embedded system
b) Programming Language used for embedded systems
c) Voice User Interface
d) Computer Vision
e) Image Processing
Course Code : CIT-003
Course Title : Web based Technologies and Multimedia Applications
Assignment Number : CIT/CIT-003/ASSIGN/12
Maximum Marks : 25
Last Dates for Submission : 15th October, 2012 (For July Session)
                         15th April, 2013 (For January Session)

There are three questions in this assignment which carry 25 marks. Answer all the questions. You may use illustrations and diagrams to enhance the explanations. Please go through the guidelines regarding assignments given in the CIT Programme Guide. The examples, whenever asked to be given, should be different from those that are discussed in the corresponding course material.

Question 1: Search Internet to find the latest tools for developing Multimedia applications. List the tools you found along with a brief about their functionality. (9 marks)

Question 2: Search Internet to find the latest tools for developing websites. List the tools you found along with a brief about their functionality. (8 marks)

Question 3: Propose a plan to develop a multimedia tutor for CIT-003 course. Also, indicate the tools that you want to use to implement the plan. (8 marks)
There are two questions in this assignment. You may use illustrations and diagrams to enhance the explanations. Please go through the guidelines regarding assignments given in the CIT Programme Guide.

**Question 1:** Write a C program to do the following:

Write a program that reads a data file of floating numbers into an array and prints the array elements along with the number of items in the array. The name of the data file (e.g. float.txt) should be provided interactively. Next, write a function that prints the sum of the elements in the array.

(10 marks)

**Note:** Enclose the output along with the assignment.

**Question 2:** Design and develop a website to display the programme wise students details (Number of students, their enrollment, names, addresses, telephone numbers, course registered, etc.) of a study centre. Before checking these students details a user must authenticate himself or herself by given username and password.

Write the code to check the username and their password. Assume that there exists a database (e.g. MS-Access) consisting of Username and Password entry. If password is correct, the same message will be displayed and programme wise students details will be displayed or the authentication page will display a message ‘wrong password’.

(15 marks)

**Note:** Enclose the printouts of the web page(s) created by you along with the assignment.