

**CERTIFICATE  
IN  
INFORMATION TECHNOLOGY  
(CIT)**

**ASSIGNMENTS**

**(July - 2014 & January - 2015)**

**(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

Course Code	Assignment No.	Maximum Marks	Page No.
<b>CIT-001</b>	<b>CIT/CIT-001/ASSIGN/14</b>	<b>25</b>	<b>3</b>
<b>CIT-002</b>	<b>CIT/CIT-002/ASSIGN/14</b>	<b>25</b>	<b>4</b>
<b>CIT-003</b>	<b>CIT/CIT-003/ASSIGN/14</b>	<b>25</b>	<b>6</b>
<b>CITL-001</b>	<b>CIT/CITL-001/ASSIGN/14</b>	<b>25</b>	<b>7</b>

### Important Notes

1. Submit your assignments to the coordinator of your Study Centre on or before the due date.
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. To become eligible for appearing the Term End Practical Examination for the lab course CITL – 001, it is essential to fulfill the minimum attendance requirements as well as the submission of assignments (on or before the due date). For further details, please refer to the CIT programme guide.

<b>Course Code</b>	:	<b>CIT-001</b>
<b>Course Title</b>	:	<b>Fundamentals of Computer Systems</b>
<b>Assignment Number</b>	:	<b>CIT/CIT-001/ASSIGN/14</b>
<b>Maximum Marks</b>	:	<b>25</b>
<b>Last Dates for Submission</b>	:	<b>15<sup>th</sup> October, 2014 (For July Session)</b> <b>15<sup>th</sup> April, 2015 (For January Session)</b>

**There are five 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 a computer system? Explain different components of 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) What is a Flowchart? Explain advantages of using Flowchart. (2 marks)
- (b) Draw a Flowchart for finding area of a circle. Also write C program for the same problem. (3 marks)

**Question 3:**

- (a) Write a C program for finding the sum and average of four given numbers. (2 marks)
- (b) Explain use of switch *statement* with the help of an example. (3 marks)

**Question 4:**

- (a) What is a Computer Network? Briefly explain different types of computer networks. (3 marks)
- (b) What are different types of Communication media? Explain how wireless transmission is different from wired transmission. (2 marks)

**Question 5:**

- (a) What is a computer virus? Explain different types of virus attacks. (2 marks)
- (b) What is the need of Network Security? Explain different elements of Network Security. (3 marks)

**Course Code** : **CIT-002**  
**Course Title** : **Introduction to Information Technology**  
**Assignment Number** : **CIT/CIT-002/ASSIGN/14**  
**Maximum Marks** : **25**  
**Last Dates for Submission** : **15<sup>th</sup> October, 2014 (For July Session)**  
**15<sup>th</sup> April, 2015 (For January Session)**

**There are four 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:**

*(6 marks)*

- (a) Explain the concept of Data, Information, Knowledge and Wisdom with the help of an example of monsoon weather in India. Also explain the parameters of Information Effectiveness.
- (b) What are the different types of information system? Why are they used? Explain each type with the help of an example.
- (c) What is the meaning of ICT? What are the benefits of using ICT? Does non-existence of ICT infrastructure lead to digital divide? Justify your answer.
- (d) Differentiate between the real space and cyber space. Explain the functions of digital identity system. List common type of cyber and computer crimes and methods to prevent such crimes.

**Question 2:**

*(6 marks)*

- (a) What is e-Commerce? What are the advantages and limitations of eCommerce? List different types of eCommerce applications. What are different systems of payments for eCommerce and what are the security threats for such systems?
- (b) What is e-Governance? Suppose you want to create an e-Governance project relating to higher education in a city. List the issues and measures that you will consider for this e-Governance project.
- (c) What is eLearning? What are the advantages and limitations of eLearning over formal learning? Find out the learning model for Massive Open Online Course (MOOC).
- (d) Explain the role of ICT in health care with the help of an example. Visit a nearby health care centre and find out the ICT use of the centre.

**Question 3:**

*(6 marks)*

- (a) List the requirements of a information system that maintains fee, health and academic performance records of the students of a School.
- (b) Explain different types of information system with the help of an example of each.
- (c) Describe any the projects of NICNET.

**Question 4:**

*(7 marks)*

- (a) Explain the characteristics of an Embedded Systems with the help of a diagram. Describe the functions that are part of embedded systems used for recording digital sound.
- (b) Explain the features of Graphical user interface and Sound user interface.
- (c) What is computer vision? What are its goals and applications? Explain with the help of an example.

**Course Code** : **CIT-003**  
**Course Title** : **Web based Technologies and Multimedia Applications**  
**Assignment Number** : **CIT/CIT-003/ASSIGN/14**  
**Maximum Marks** : **25**  
**Last Dates for Submission** : **15<sup>th</sup> October, 2014 (For July Session)**  
**15<sup>th</sup> April, 2015 (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 your explanation. 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:** Whenever you search Internet using a Search Engine, it lists large number of results. What are different ways of searching so that you get the most relevant results? Explain with examples. *(8 marks)*
- Question 2:** Design a web page for yourself. Include your hobbies, contact information etc.. Use frames. Draw the layout of the web page on a paper. Explain the navigation also. *(9 marks)*
- Question 3:** Propose a plan to develop a multimedia tutor titled “Browsing Internet”. Also, indicate the tools that you want to use to implement the plan. Make assumptions, wherever needed. *(8 marks)*

**Course Code** : **CITL-001**  
**Course Title** : **Laboratory Course**  
**Assignment Number** : **CIT/CITL-001/ASSIGN/14**  
**Maximum Marks** : **25**  
**Last Dates for Submission** : **15<sup>th</sup> October, 2014 (For July Session)**  
**15<sup>th</sup> April, 2015 (For January Session)**

**There are two questions in this assignment. You may use illustrations and make flowcharts to enhance the explanations. Please go through the guidelines regarding assignments given in the CIT Programme Guide.**

**Question 1:** Write a C program that have two functions one for testing whether a given number is prime or not, and second is for finding out the prime factors of a given number, A person wants to check that whether a given number is prime or not. If the number is not a prime number, then he wants to find out its prime factors. *(10 marks)*

**Note:** The prime factors of a positive integer are the prime numbers that divide that integer exactly.

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

**Question 2:** Design and develop a website to manage cargo business. This website should provide period information about the status of goods and the transport details. The main function of this website is to give details for the order for transport, show the money receipt from, and finally deliver status of the goods safely to the consignee. The various information's such as total booking in six months or a year and the customer status is also maintained efficiently by this website. *(15 marks)*

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