

**CERTIFICATE
IN
INFORMATION TECHNOLOGY
(CIT)**

ASSIGNMENTS

(July - 2018 & January - 2019)

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



**SCHOOL OF COMPUTER AND INFORMATION SCIENCES
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI – 110 068**

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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 submission of assignments (on or before the due date). For further details, please refer to the CIT Programme Guide.

Course Code	:	CIT-001
Course Title	:	Fundamentals of Computer Systems
Assignment Number	:	CIT/CIT-001/ASSIGNMENT/18-19
Maximum Marks	:	25
Last Dates for Submission	:	15th October, 2018 (For July Session) 15th April, 2019 (For January Session)

Note: 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 a computer system? Explain area of applications of computer system. (2 Marks)
- (b) Explain different types of main memory briefly. (2 Marks)
- (c) Explain capacity, density and speed of hard disk drive. (2 Marks)

Question 2:

- (a) What is Operating System? Explain functions of Operating System. (2 Marks)
- (b) What is a Flowchart? Explain use of different symbols used in drawing of Flowcharts. Draw a flowchart for finding smallest number from three given numbers. (3 Marks)
- (c) Write a C program square of a given numbers. (2 marks)

Question 3:

- (a) What is computer network? Briefly serial transmission and parallel transmission. (3 marks)
- (b) Explain use of following network devices:
 - i). Switch
 - ii). Router
 - iii). Repeater
 (3 marks)

Question 4:

- (a) Briefly explain Bus and Star network topologies. (2 marks)
- (b) Explain different types of security threats in computer network. (2 marks)
- (c) What is computer virus? Explain different types of computer virus. (2 marks)

Course Code : **CIT-002**
Course Title : **Introduction to Information Technology**
Assignment Number : **CIT/CIT-002/ASSIGNMENT/18-19**
Maximum Marks : **25**
Last Dates for Submission : **15th October, 2018 (For July Session)**
15th April, 2019 (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: (Covers Block 1) (6 marks)

- a) How is data different from Information? Explain with the help of data of students of a University. Also define the terms Quality and Value of Information in this context.
- b) Explain the term ICT. How is the Communication part of ICT realised? What are the advantages of using ICT? Can ICT reduce digital divide? Give reasons in support of your answer.
- c) Define the term digital identity? How can digital identity help in marketing of goods? What are different security threats in the context of digital identity?

Question 2: (Covers Block 2) (2+1+2+2= 7 marks)

- a) Differentiate between B2B and B2C e-commerce? List two websites that provide B2C e-commerce. List any four system of payments. Explain the security concerns relating to e-commerce.
- b) List the measures that should be considered before going for e-Governance.
- c) Explain the purpose of different tools that are required for media creation for e-learning. List and explain any two e-learning standards.
- d) List the features that should be available in a knowledge based healthcare expert system. Also explain the purpose of Bioinformatics.

Question 3: (Covers Block 3) (6 marks)

- a) Identify and list requirements for an online Banking system.
- b) What is an MIS? List the features of a successful MIS.
- c) What is NICNET? List the features of any two projects implemented or being implemented on NICNET.

Question 4: (Covers Block 4)

(6 marks)

- a) List the features and characteristics of embedded operating systems. List the features of an embedded programming language.
- b) Explain the purpose of the following in the context of HCI:
 - (i) Hypermedia
 - (ii) GUI
 - (iii) Hypertext
 - (iv) Voice User Interfaces
- c) Explain any four technical challenges in the context of Computer Vision. Also describe any two applications of Computer vision.

Course Code : **CIT-003**
Course Title : **Web based Technologies and Multimedia Applications**
Assignment Number : **CIT/CIT-003/ASSIGNMENT/18-19**
Maximum Marks : **25**
Last Dates for Submission : **15th October, 2018 (For July Session)**
15th April, 2019 (For January Session)

There are two 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:** Design a web page for a University from the perspective of a Student. Draw the web page on a paper. Explain the navigation also. (13 Marks)
- Question 2:** Propose a plan to develop a multimedia tutor titled “Introduction to Multimedia”. Also, indicate the tools that you want to use to implement the plan. Make assumptions, wherever needed. (12 Marks)

Course Code : **CITL-001**
Course Title : **Laboratory Course**
Assignment Number : **CIT/CITL-001/ASSIGNMENT/18-19**
Maximum Marks : **25**
Last Dates for Submission : **15th October, 2018 (For July Session)**
15th April, 2019 (For January Session)

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. Submit the screenshots also along with the coding and documentation.

Question 1. Write a C program which prompts the user with the (10 marks)
following options at the command prompt:

1. Enter New Text String
2. Count the Alphabets
3. Count the Words
4. Quit the Program

After running the program will ask user to enter any text string and perform the operation as given in the options.

Question 2. Design and develop a website to display the Online (15 marks)
Banking System. Any person with account number can register with bank. Once bank web admin approves a user, then user is able to access his/her accounts online. Web admin will display/send login ID and a password to the user online.

It should have a login page and registration page for members and new users respectively. This website can help users to check the account balance and see the account statement.

Note: Make assumptions wherever necessary.