

CERTIFICATE IN INFORMATION TECHNOLOGY (CIT)

ASSIGNMENTS

(July - 2025 & January - 2026)

(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**

CONTENTS

Course Code	Assignment No.	Maximum Marks	Page No.
CIT-001	CIT/CIT-001/ASSIGN/2025-26	25	3
CIT-002	CIT/CIT-002/ASSIGN/2025-26	25	4
CIT-003	CIT/CIT-003/ASSIGN/2025-26	25	6
CITL-001	CIT/CITL-001/ASSIGN/2025-26	25	7

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/ASSIGN/2025-26
Maximum Marks : 25
Last Dates for Submission : 31st October, 2025 (For July Session)
15th April, 2026 (For January Session)

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 with the help of Block Diagram. (2 marks)
- (b) What are output devices? Briefly explain the various output devices. (2 marks)
- (c) What is secondary memory? Explain how is it different from primary memory. (2 marks)

Question 2:

- (a) What is software? What is application software? How is it different from utility software? (2 marks)
- (b) What is a Flowchart? Explain different symbols used in Flowcharts. Draw a flowchart for finding the largest among three numbers. (3 marks)
- (c) Write a C program to find the area of a circle. (2 marks)

Question 3:

- (a) What is computer network? Briefly explain star and ring network topologies. (2 marks)
- (b) Explain asynchronous and synchronous mode of data transmission with the help of examples. (2 marks)
- (c) Explain OSI reference model. (2 marks)

Question 4:

- (a) What is social networking? Explain its advantages. (2 marks)
- (b) What is need of information security? List different security threats in computer network. (2 marks)
- (c) What is computer virus? What are different types of viruses? Explain how a computer system can be protected from computer virus. (2 marks)

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Course Code	Assignment No.	Maximum Marks	Page No.
CIT-001	CIT/CIT-001/ASSIGN/2025-26	25	3
CIT-002	CIT/CIT-002/ASSIGN/2025-26	25	4
CIT-003	CIT/CIT-003/ASSIGN/2025-26	25	6
CITL-001	CIT/CITL-001/ASSIGN/2025-26	25	7

Important Notes

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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.
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Course Code : **CIT-002**
Course Title : **Introduction to Information Technology**
Assignment Number : **CIT/CIT-002/ASSIGN/2025-26**
Maximum Marks : **25**
Last Dates for Submission : **31st October 2025 (For July Session)**
15th April 2026 (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) Differentiate between (i) Data and Information, and (ii) Knowledge and Wisdom. Give one example each of data, information, knowledge and wisdom. List different sources of information.
- (b) What are Information and Communication Technologies (ICT)? Explain the benefits of ICT. Explain the reasons for the existence of the digital divide.
- (c) What is a digital identity? How is digital identity used in cyberspace? Explain with the help of an example.

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

- (a) What are the advantages and limitations of e-Commerce? Explain. What are the security issues relating to e-commerce systems?
- (b) What are the objectives of e-Governance?
- (c) Explain the use of the following in eLearning:
 - (i) Chat (ii) e-mail (iii) Mailing lists (iv) Videoconferencing
- (d) Explain the use of ICT in online medical advice and evidence-based medicine.

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

- (a) List and explain any 6 requirements for the development of an Information System for a departmental store.
- (b) Explain the following components of an MIS.
 - i) Inventory and Materials Management
 - ii) Quality control
- (c) List the features of the COURTIS and ERNET projects in India.

Question 4: (Covers Block 4) (6 marks)

- (a) List the features of the programming languages used for embedded systems. Differentiate between VHDL and VERILOG.

- (b)** Explain the following in the context of HCI:
- (i) Digital Camera and Plotters
 - (ii) Menus, Push buttons, Radio Buttons and Checkboxes
- (c)** Explain the following in the context of Computer Vision:
- (i) Pixel
 - (ii) Occlusion
 - (iii) Face Detection
 - (iv) Image Restoration
 - (v) Optical character recognition
 - (vi) Unmanned Aerial Vehicle (UAV)

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**SCHOOL OF COMPUTER AND INFORMATION SCIENCES
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Course Code : CIT-003
Course Title : Web based Technologies and Multimedia Applications
Assignment Number : CIT/CIT-003/ASSIGN/2025-26
Maximum Marks : 25
Last Dates for Submission : 31st October, 2025 (For July Session)
15th April, 2026 (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: (13 marks)

Design a web page for a University from the perspective of a Student. Draw the home page and web pages clearly indicating text and links. Explain the navigation also.

Question 2: (12 marks)

List the tools that are available to design Multimedia for mobile devices. List the features of each tools. Also, indicate the mobile platform on whom they will work. If any tool works for all the mobile platforms, then, indicate it as “Hybrid”. Make necessary assumptions.

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Course Code	:	CITL-001
Course Title	:	Laboratory Course
Assignment Number	:	CIT/CITL-001/ASSIGN/2025-26
Maximum Marks	:	25
Last Dates for Submission	:	31st October, 2025 (For July Session)
	:	15th April, 2026 (For January Session)

There are five questions in this assignment of 5 marks each. 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: (5 marks)

Write a C program using functions to multiply two matrices of size 4 x 4. Allow the user to input the matrix elements. Display the input matrices and the resultant matrix after multiplication.

Question 2: (5 marks)

Develop a basic e-commerce website for a household utility store. The website should display various categories of items like groceries, cleaning products, etc., along with their prices. Include a registration form where users can enter their name, contact details, and delivery address. Apply a discount for purchases totalling Rs. 2500 or more.

Question 3: (5 marks)

Create a Java applet that takes temperature input from the user in either Celsius or Fahrenheit and converts it to the other scale i.e. Celsius to Fahrenheit (Or Vice Versa), based on the user's selection from a dropdown menu. Display the converted result on the screen.

Question 4: (5 marks)

Design a "Student Information System" database using MS-Access. Include tables for Students, Courses, and Enrolments. Make appropriate assumptions about the fields and relationships among these tables.

Question 5: (5 marks)

Demonstrate the functionality of the "References" tab in MS-Word by creating a mini-project report. Show the use of features like Table of Contents, Citations, Bibliography, Footnotes, and Cross-referencing.