# INTERNAL ASSIGNMENT QUESTIONS
## Advanced Diploma in Computer Applications

## Semester - I

## ANNUAL EXAMINATIONS, 2025


**PROF. G. RAM REDDY CENTRE FOR DISTANCE EDUCATION**
(RECOGNISED BY THE DISTANCE EDUCATION BUREAU, UGC, NEW DELHI)
**OSMANIA UNIVERSITY**
(A University with Potential for Excellence and Re-Accredited by NAAC with "A" + Grade)


**DIRECTOR**
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**PROF.G.RAM REDDY CENTRE FOR DISTANCE EDUCATION**
**OSMANIA UNIVERSITY, HYDERABAD – 500 007**

Dear Students,

Every student of Advanced Diploma in Computer Applications Semester I has to write and submit **Assignment** for each paper compulsorily. Each assignment carries **30 marks.** The marks awarded to the students will be forwarded to the Examination Branch, OU for inclusion in the marks memo. If the student fail to submit Internal Assignments before the stipulated date, the internal marks will not be added in the final marks memo under any circumstances. The assignments will not be accepted after the stipulated date. **Candidates should submit assignments only in the academic year in which the examination fee is paid for the examination for the first time.**

Candidates are required to submit the Exam fee receipt along with the assignment answers scripts at the concerned counter on or before **30-08-2025** and obtain proper submission receipt.

**ASSIGNMENT WITHOUT EXAMINATION FEE PAYMENT RECEIPT (ONLINE) WILL NOT BE ACCEPTED**

**Assignments on Printed / Photocopy / Typed will not be accepted and will not be valued at any cost. Only HAND WRITTEN ASSIGNMENTS will be accepted and valued.**

**Students are Advised not use Black Pen.**

**Methodology for writing the Assignments (Instructions) :**

1. First read the subject matter in the course material that is supplied to you.
2. If possible read the subject matter in the books suggested for further reading.
3. You are welcome to use the PGRRCDE Library on all working days for collecting information on the topic of your assignments. (10.30 am to 5.00 pm).
4. Give a final reading to the answer you have written and see whether you can delete unimportant or repetitive words.
5. The cover page of the each theory assignments must have information as given in FORMAT below.

## FORMAT

1. NAME OF THE STUDENT :
2. ENROLLMENT NUMBER :
3. NAME OF THE COURSE :
4. SEMESTER ( I, II, III & IV) :
5. TITLE OF THE PAPER :
6. DATE OF SUBMISSION :

6. Write the above said details clearly on every subject assignments paper, otherwise your paper will not be valued.
7. Tag all the assignments paper wise and submit them in the concerned counter.
8. Submit the assignments on or before **30-08-2025** at the concerned counter at PGRRCDE, OU on any working day and obtain receipt.

**DIRECTOR**

# INTERNAL ASSESSMENT

## Paper – I: PROGRAMMING IN C AND DATA STRUCTURES

### ASSIGNMENT - I

**UNIT – I : Answer the following questions (each question carries three marks) 5x3=15**

1. What are the key features at the ‘C’ programming language.
2. What are the basic data types in ‘C’ ? How declare variables and how initialize variables in ‘C’.
3. How are arrays declared and initialized in ‘C’ & difference between 1- Dimentional and 2-Dimentional arrays.
4. What is a recursive function to find the factorial of a number.
5. What is a pointer? How is it declare?

### ASSIGNMENT - II

**UNIT – I : Answer the following questions (each question carries three marks) 5x3=15**

1. Explain about the sitting manipulation functions?
2. What is the structure? How to initialize the structures?
3. How do you declare a pointer to structures?
4. Define a linear list and explain its characteristics.
5. Explain indetail at Stack Applications

# INTERNAL ASSESSMENT

## PAPER – II : ELEMENTS OF INFORMATION TECHNOLOGY

### ASSIGNMENT - I

**UNIT – I : Answer the following questions (each question carries three marks) 5x3=15**

1. Define Information System and Explain its Characteristics ?
2. Describe types of Number Systems and give an example for Each type ?
3. How do you represent Signed and Unsigned Numbers ?
4. Differentiate Compilers, Assemblers, and Interpreters ?
5. Elaborate the functions of Operating System and explain about Single and Multitasking Operating System.

### ASSIGNMENT - II

**UNIT – I : Answer the following questions (each question carries three marks) 5x3=15**

1. Lists various UNIX commands for Process Management ?
2. Lists the features of Word Processing Software ?
3. Define Database. Illustrate the various packages used for Database ?
4. What is a Computer Network ? Describe the types of Networks ?
5. Explain the components of Multimedia and its applications.

# INTERNAL ASSESSMENT

## PAPER – III : OPERATING SYSTEMS

### ASSIGNMENT - I

**UNIT – I : Answer the following questions (each question carries three marks) 5x3=15**

1. What are the functions of Operating System.
2. Describe the Deadlock Techniques.
3. Explain process of Segmentation.
4. Explain file concepts.
5. What is Thread; Explain about Multithreading.

### ASSIGNMENT - II

**UNIT – I : Answer the following questions (each question carries three marks) 5x3=15**

1. Explain about critical section problem.
2. Describe about RAID Structure.
3. Write about Design Principles of Linux system.
4. Explain about General Architecture Windows XP.
5. Difference between Process Management & Scheduling Memory Mangement.

# INTERNAL ASSESSMENT

## PAPER – IV : DATABASE MANAGEMENT SYSTEMS

### ASSIGNMENT - I

**UNIT – I : Answer the following questions (each question carries three marks) 5x3=15**

1. Explain the advantages of DBMS and disadvantages of file management system.
2. Explain normalization, 1NF,2NF, 3NF, BCNF.
3. Explain the below terms
   a. Generalization
   b. Specialization
   c. Aggreation
   d. Data Independence
4. Explain ER model
   a. Strong entity
   b. Weak entity
   c. Different types of attributes
   d. Take the example convert the ER diagram to table.
   e. Explain the advantages of DBMS.
5. Explain all DDI, DML, TCL commands with syntax and examples.

### ASSIGNMENT - II

**UNIT – I : Answer the following questions (each question carries three marks) 5x3=15**

1. Explain about the ACID properties, and Transaction state diagram.
2. Explain the
   a. Shred clock
   b. Exclusive clock
   c. Serial schedule
   d. Non Serial schedule
3. Explain different types of indexing
   a. Ordered index
   b. Primary index
   c. Clustering index
   d. Secondary index
4. Explain B+ tree with the example.
5. Explain the different types of hashing technique.
   a. Static hashing
   b. Dynamic hashing

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