INTERNAL ASSIGNMENT QUESTIONS
Advanced Diploma in Computer Applications

Semester - I

ANNUAL EXAMINATIONS, 2024

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 **31.07.2024** 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.
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 **31.07.2024** 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. Write in detail about C-Identifiers, Data types, Operators, Variables and Constants.

2. List out the sorting techniques and describe the selection sort with an example.

3. Write about the following:

   i). Arrays and Pointers

   ii). Passing arrays to a function

4. Explain the concept of Pointers to Structures and Nested Structures.

5. Write about the searching operations on Linear list.

ASSIGNMENT - II

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

1. Draw the flow chart diagrams for a while, for and do-while loop statements.

2. Explain in detail about the storage classes in C.

3. Write about the following:

   i). Arrays of Strings

   ii). Enumerated types

4. Write about the standard library Input / Output functions and Character Input / Output functions.

5. Describe the concept of infix to postfix conversion with an example.

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. Give an elaborate explanation of OS Services.

2. Explain about Round Robin Scheduling with an example.

3. What is thrashing ? Explain thrashing with an example.

4. Illustrate Segmentation with a neat figure.

5. What is deadlock ? Write necessary conditions to prevent deadlock.

ASSIGNMENT - II

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

1. Describe the design Principles of Linux OS.

2. Write a neat figure, explain NJ Kernel.

3. Illustrate context switch with an example.

4. Explain about Device Management.

5. Describe the concept of Indexed allocation.

INTERNAL ASSESSMENT

PAPER – IV : DATABASE MANAGEMENT SYSTEMS

ASSIGNMENT - I

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

1. Explain e-r diagram in detail with diagram.
    Strong entity, Weak entity, Attributes, Relations

2. What is normalization explain the different types of normalization.

3. Explain about the keys
    Super Key, Candidate Key, Primary Key, Foreign Key, Alternative Key, Composite Key

4. Write the Syntax for all DDL, DML, TCL, DCL commands with examples.

5. Explain the advantages of DBMS.

    Write the difference between DMBS and RDBMs

    Write the difference between DMBS and FILE management system.

ASSIGNMENT - II

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

1. Explain about the ACID properties. With examples.

2. Explain the b+ tree in detail along with the diagram.

3. Explain about transaction state diagram in detail.

4. Explain about Serializability, view Serializability, conflict Serializabilty.

5. Explain about concurrency protocol, time based protocol, lock passed protocol, validation based protocol.

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