INTERNAL ASSIGNMENT QUESTIONS
Advanced Diploma in Computer Applications

Semester II - 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 II 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 **05-03-2025** 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.

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 **05-03-2025** at the concerned counter at PGRRCDE, OU on any working day and obtain receipt.

DIRECTOR

INTERNAL ASSESSMENT

Paper – I: COMPUTER NETWORKS

ASSIGNMENT - I

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

1. Write about OSI reference model.
2. Write about different topologies.
3. Write about Fibre Optics
4. Write about HDLC.
5. Distinguish between pure and slotted ALOHA.

ASSIGNMENT - II

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

1. Write about Error Control.
2. Distinguish between Virtual Circuit and Datagram Circuit.
3. Write about Distance Vector Touting.
4. Write about IP Protocol.
5. Write about Multiplexing (Transport Layer).

INTERNAL ASSESSMENT

PAPER – II : OBJECT PROGRAMMING USING JAVA

ASSIGNMENT - I

Answer the following questions (each question carries three marks) 5x3=15

1. Explain about Overview of Java ?
2. Write about Datatype and Variables in java programming.
3. Write about types of operators and control statements.
4. What are the benefits of Object-Oriented Development ?
5. Explain about Packages and Interfaces in java programming.

ASSIGNMENT - II

Answer the following questions (each question carries three marks) 5x3=15

1. What is an exception ? List the five keywords used for exception handling in java.
2. Explain with an example how you will use the try and catch blocks.
3. Explain the Thread Class in java
4. Discuss what is multi threaded programming.
5. Difference between multithreading and multitasking.

INTERNAL ASSESSMENT

PAPER – III : SOFTWARE ENGINEERING

ASSIGNMENT - I

Answer the following questions (each question carries three marks) 5x3=15

1. Define Software Engineering and explain its importance in modern software development. How does it differ from traditional programming?
2. Explain the Software Development Life Cycle (SDLC) with a focus on each phase. Provide examples of activities conducted in each phase.
3. Explain the Waterfall and Spiral software development models. Compare their applications and advantages.
4. Define software Requirement specifications (SRS). Explain the importance of using DFD and ER diagrams in requirements analysis.
5. What is Software Architecture ? Describe the different architecture vies and their relevance.

ASSIGNMENT - II

Answer the following questions (each question carries three marks) 5x3=15

1. What are the Principles of structured programming and how does test-driven development (TDD) improve code quality?
2. Explain the concepts of unit testing and the difference between code inspection and code review.
3. What are the difference between white-box testing and black –box testing? Provide real-world examples for each.
4. What is the role of continuous integration/continuous development (CI/CD) pipelines in Agile methodologies?
5. a). Differentiate between re-engineering reverse engineering, and forward engineering with appropriate examples.

   b). Discuss the challenges faced during maintenance and suggest strategies to overcome them.

INTERNAL ASSESSMENT

PAPER – IV : WEB PROGRAMMING

ASSIGNMENT - I

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

1. What is Hypertext?
2. Discuss about CSS.
3. Explain about Mathematical Function?
4. Explain Onclick and Onload in Java Script?
5. Discuss about PHP Cookies?

ASSIGNMENT - II

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

1. Explain about JDBC components?
2. Explain about SQL Exception Methods?
3. Explain about Common Gateway Interface (CGI)?
4. What are HTTP GET and PUT requests with Example?
5. What is JDBC and Explain the JDBC Architecture?

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