P.G. DIPLOMA IN COMPUTER APPLICATIONS

Internal Assignment Questions

2019

PROF. G. RAM REDDY CENTRE FOR DISTANCE EDUCATION
(Recognised by the Distance Education Bureau, UGC, New Delhi.)
OSMANIA UNIVERSITY, HYDERABAD – 500 007 Telangana State INDIA
(A University with Potential for Excellence and re-accredited by NAAC with 'A^{+}' grade)

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Dear Students,

All the I semester students of PG Diploma in Computer Application has to write 2 Assignments for each paper and submit **Assignment** for each paper compulsorily. Each assignment carries **30 marks.** University Examinations will be held for **70 marks**. The concerned faculty evaluates these assignment scripts. The marks awarded to you will be forwarded to the Controller of Examination, OU for inclusion in the University Examination marks. If you fail to submit Internal Assignments before the stipulated date, the internal marks will not be added to University examination marks under any circumstances. **The assignment marks will not be accepted after the stipulated date.**

You are required to **pay Rs.300/- fee** towards Internal Assignment marks through online http://oucde.net and submit the payment receipt along with assignment at the concerned counter **on or before 30ᵗʰ April, 2019** and obtain proper submission receipt.
ASSIGNMENT WITHOUT THE PAID RECEIPT WILL NOT BE ACCEPTED

Assignments on Printed / Photocopy / Typed papers will not be accepted and will not be valued at any cost. Only hand written Assignments on A/4 size paper (one side only) will be accepted and valued.

Methodology for writing the Assignments:

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 including Sunday 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

a. NAME OF THE COURSE :

b. NAME OF THE STUDENT :

c. ENROLLMENT NUMBER :

d. NAME OF THE PAPER : _____

e. DATE OF SUBMISSION : _____

6. Write the above said details clearly on every assignment paper, otherwise your paper will not be valued.

7. Tag all the assignments paper-wise and submit.

8. Submit the assignments on or before **30ᵗʰ April, 2019** at the concerned counter at PGRRCDE, OU on any working day and obtain receipt.

Prof.Chintha Ganesh
DIRECTOR

2

Answer all the following questions   **Marks : 3 x 5=15**

1. a) What are primary and secondary data types? Give examples for each.
    b) Write a C program using for loop to find the minimum and maximum of any ten integers.

2. a) Write the syntax and flow chart of Switch case statement.
    b) Write a C Program to find the sum and average of 'N' numbers using While loop.

3. a) Discuss the usage of single and multi dimensional arrays.
    b) Write a C Program to find the sum of upper triangular matrix if matrix size is 4X4.

Answer the following short questions   **Marks : 3 x 5=15**

1) a) What is an information system? What are some of the ways information systems are changing our lives?
    b) Convert 254.655_{10} to Hexadecimal with an accuracy of 3 fractional digits.

2) a) Distinguish between system and application software.
    b) Write short notes on
       (i) compiler
       (ii) computer languages and its classification.

3) a) Elaborate on functions of operating Systems.
    b) Using Octal notation, show BCD coding for the word DIGIT.

Answer all the following questions   **Marks : 3 x 5=15**

1 a) What are the operating system structures and operating system services discuss.
   b) List the scheduling criteria? Consider the following set of process that arrives at time 0, with the length of the CPU burst given in milliseconds.

Process	Burst time
P1	24
P2	3
P3	3

If the process in the order p1,p2,p3 and are served in FCFS order and SJF draw the Gantt chart , calculate TAT of each process(turn around time) ,waiting time of each process and response time of each process.

2 a) Describe paging in detail and file system implementation.

   b) If FIFO page replacement is used with four page frames and eight pages ,how many page fault will occure with reference string 0 1 7 2 3 2 7 1 0 3 if the four frames are initially empty? Now repeat this problem for LRU?

3 a) What is critical section problem discuss   producer-consumer problem.
   b) What are dead lock necessary conditions? Explain dead lock avoidance with an example.

Answer all the following questions   **Marks : 3 x 5=15**

1. a) What are the advantages and disadvantages of DBMS,
    b) Explain about three scheme architecture.

2. What is Normalization? Explain different types of normal forms with suitable examples.

3. a) Explain different Relational algebra operators.
    b) Explain about cursors.

Answer all the following questions   **Marks : 3 x 5=15**

1. a) Write the usage of pointer variables. What are the arithmetic operations that can be performed on these pointer variables. Give examples for each.
    b) Write a C program using do while loop to find the decimal to binary equivalent number.
2. a) What are the operations that can be performed on Stacks. Write a C program to implement stack using arrays.
    b) Discuss the applications of queues.
3. a) Implement the Singly list using C Program to insert and delete a node in a singly linked list.
    b) What are the applications of structures and unions

Answer the following short questions   **Marks : 3 x 5=15**

1) a) Discus about tasks of an operating systems.
    b) Create a table that lists 5 or more possible careeer areas, annual salaries, and brief job description and rate how much do you like the career area on a scale 1 to 10 (like the most). Print the results. Sort the table according to the annual salaries from high to low and print the resulting table. Sort the table from most liked to least liked and print the results.

2) a) Explain how word processing software is different from mail merge and discuss about their features.
    b) Explain the following with respect to spreadsheets:
        (i)   page break preview
        (ii)   conditional formatting

3) a) Write short notes on
        (i) networking software
        (ii) internet and intranet

    b) Goto an internet search engine and search for the information on virtual reality. Write a brief report that summarizes what you found.

ASSIGNMENT-II
PGDCA – I SEMESTER
OPERATING SYSTEMS – PC 103 IT

Answer all the following questions   **Marks : 3 x 5=15**

1 a) What is free space management and what is resource allocation graph.
   b) What is access matrix? Describe RAID structure.

2 a) What is Disk structure? Explain Disk scheduling algorithm.
   b) Explain I/O system in detail.

3 a) Give case study for design principles and kernel modules.
   b) Discuss windows XP in detail (the NT kernel ,the NT executive).

ASSIGNMENT – II
PGDCA – I SEMESTER
DATABASE MANAGEMENT SYSTEMS – PC 104 IT

Answer all the following questions   **Marks : 3 x 5=15**

1. a) Explain different types of file organizations?
   b) What are the properties of an Index.

2. Explain about Dynamic Hashing techniques.

3. a) Explain about deadlocks & time stamp based protocols.
   b) Explain about access control mechanism.

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