POSTGRADUATE DEGREE PROGRAM

Master of Computer Applications

Home Assignments for Internal Evaluation

MCA-01 to MCA-08

SESSION- 2013-14

Submit 30 days before your Term-end Examination

Department of Computer Science

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Vardhaman Mahaveer Open University

POSTGRADUATE DEGREE PROGRAM (Computer Science)

Master of Computer Applications

Dear Students,

University is sending Internal Assignments of different courses/papers of MCA Ist an d IInd Semeter. The details of assignment are as under:

Course Code	*Name of Course (Paper)*
MCA-01	***Computer Fundamentals and PC software***
MCA-02	***Digital Logic***
MCA-03	***Computer Programming using C***
MCA-04	***Communicative English***
MCA-05	***Computer Organization & Architecture***
MCA-06	***Object Oriented Programming through C++***
MCA-07	***Data Structure through C language***
MCA-08	***Visual Basic***

You have to submit two assignments in each course. Submit these Assignments to the Director of the Regional Center concerned in person or you may also submit these assignments by Registered Post to him. Each assignment carries 20 Marks. Marks awarded in these assignments will be added to your term end examination. You have to write these assignments in your own hand writing in Hindi or English. There is no provision of revaluation or resubmission of these assignments. Write down the best assignment in first attempt. Submit each assignment separately. Use full size paper for your response. Tie all pages carefully. Different assignments should be prepared separately.

Submit the following information on the first page of your assignment.

Master of Computer Applications

_____ and _____ Semester

Session ……..

Internal Assignment No:…… Date of Deposit:……..

Course Code: ……..

Name of Regional Center: ……

Name of Course: …….

Name of Student: ……..

Fathers' Name: ……..

Scholar No: ……..

Address of Correspondence: ……..

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Maximum Marks: 20

Assignment Code – MCA-01/2014 Coverage : Units 01 to 11

Note: Attempt all the questions within limits of 500 words each. Each question carries equal marks.

Q.1 What is computer? What are the characteristics of a computer?

OR

Discuss the important features of various generations of computer. Give some examples of the computers of each generation.

Q.2 What is a cache memory? How is it different from a primary memory?

OR

Differentiate between multiprogramming and multi-tasking operating system.

Q.3 What do you understand by internal and external commands? How are they different?

OR

What are Windows components? Give examples.

Q.4 Write Short notes on: (Any two)

(i) Word Processor

(ii) Lookup Function

(iii) Power Point Smart Art

(iv) MICR

Maximum Marks: 20

Assignment Code – MCA-02/2014 Coverage : Units 01 to 06

Note: Attempt all the questions within limits of 500 words each. Each question carries equal marks.

Q.1 Perform the following by 2's compliment method:

(i) 10101 – 11011 (ii) 100011 – 1111

OR

State the De Morgan's Theorem.

Q.2 Write the procedure for obtaining NAND logic implementation of a Boolean Function?

OR

Draw and explain the operation of a 4-bit parallel adder.

Q.3 Explain the operation of MS flip-flop with its symbol and truth table.

OR

Describe the ROM internal structure.

Q.4 Write Short notes on: (Any two)

(i) Flip-Flop

(ii) Decoder

(iii) EBCDIC

(iv) Flash Memory

Maximum Marks: 20

Assignment Code – MCA-03/2014 Coverage : Units 01 to 08

Note: Attempt all the questions within limits of 500 words each. Each question carries equal marks.

Q.1 What is an algorithm? Why is it necessary to write an algorithm before program coding?

OR

Write a C program to calculate the area of a Triangle.

Q.2 What is the similarity and differences between break and continue statements?

OR

What is a Macro? Summarize the similarities and differences between macros and function.

Q.3 What is a function? State three advantages of the use of functions.

OR

Write a program to compute the length of string.

Q.4 Write Short notes on: (Any two)

(i) malloc() and calloc() Function

(ii) Recursion

(iii) Scope of variable

(iv) Unary Operator

Maximum Marks: 20

Assignment Code – MCA-04/2014

Note: Attempt all the questions within limits of 500 words each. Each question carries equal marks.

Q1. Suppose you want to apply for a position in VMOU, for this write application and Bio Data in proper structured form .

OR

Q1. What are the various essentials of formal letters? Write a letter to support that.

Q2. Explain the different layouts (Indented form, Full block form, Semi block form) of the letter each type must be supported with an example

OR

Q2. Motivate your friend who is not able to clear a AIIMS examination and he can apply the same in next year.

Q3. What are the various essentials of formal letters . Write a letter to support that.

OR

Q3. Explain the different layouts (Indented form, Full block form, Semi block form) of the letter each type must be supported with an example

Q4. Write about motivational principles given by Gandhiji.

OR

Q4. Explain Tenses. Take any example of a sentence Explain all present past and future forms possible of that sentence, also explain the negative , interrogative and negative interrogative forms of each.

Maximum Marks: 20

Assignment Code – MCA-05/2014 Coverage : Units 01 to 06

Note: Attempt all the questions within limits of 500 words each. Each question carries equal marks.

Q.1 Explain the principle of an encoder? Draw a decimal to BCD encoder.

OR

Explain all the different I/O Techniques.

Q.2 Differentiate between Static RAM and Dynamic RAM.

OR

What do mean by Addressing Mode? Discuss different types of addressing modes.

Q.3 State and explain in brief Flynn's classification of Multiprocessor architecture.

OR

What is pipelining? What are types of pipelining?

Q.4 Write Short notes on: (Any two)

(i) SIMD and MIMD

(ii) Interrupts

(iii) Synchronous DRAM

(iv) JK- Flip Flop

Maximum Marks: 20

Assignment Code – MCA06/2014 Coverage : Units 01 to 12

Note: Attempt all the questions within limits of 500 words each. Each question carries equal marks.

Q.1 What do you mean by Object Oriented Programming language? How it is differ with the procedural programming language? Explain.

OR

What are C++ manipulators? Name any five along with their purpose.

Q.2 Explain the use of break, continue and goto statement in a program?

OR

Write a program to reverse the elements of an array.

Q.3 What are inline functions? What is their use?

OR

Explain the use of private and public key words. How are they different from each other?

Q.4 Write Short notes on: (Any two)

(i) Function Overloading

(ii) Constructor and Destructor

(iii) Multilevel Inheritance

(iv) Friend Function

Maximum Marks: 20

Assignment Code – MCA-07/2014 Coverage : Units 01 to 09

Note: Attempt all the questions within limits of 500 words each. Each question carries equal marks.

Q.1 What is a data structure? Why is an array called a data structure?

OR

Write an algorithm to sort elements by bubble sort algorithm. What are the time and space complexities?

Q.2 Write a function to insert a new node before a given node into a singly linked list.

OR

Explain the *push and pop* operations.

Q.3 What is Queue? Why circular queue is needed?

OR

Differentiate between Linear and Binary search.

Q.4 Write Short notes on: (Any two)

(i) Sorting

(ii) Complexity

(iii) Tree Traversal

(iv) Weighted Graph

Maximum Marks: 20

Assignment Code – MCA-08/2014 Coverage: Units 01 to all

Note: Attempt all the questions within limits of 500 words each. Each question carries equal marks.

Q.1 What is Visual Basic? How does it compare to other languages?

OR

How do you add/remove items from a listbox and combobox?

Q.2 How do you create controls at run-time?

OR

How can we put a picture on a button? Write the code with an example.

Q.3 How do we make our window always stay on top?

OR

How do we play an animation in windows form?

Q.4 Write Short notes on: (Any two)

(i) Event Driven Programming

(ii) Windows API

(iii) MDI Form

(iv) VBX/OCX