

Masters in Computer Application (MCA) Semester 1

ASSIGNMENT BOOKLET

Assignments for subjects MCA 101, MCA 102, MCA 103,
MCA 104, MCA 105
(for Session January 2015)

Directorate of Distance Education
Punjab Technical University, Jalandhar

Dear Student

The assignment is the important component of our evaluation system and your internal assessment will be based on the assignments. The objective of such assignments is to enable you to comprehend the subject knowledge. The assignments are purposely designed on the lines of examination pattern so as to prepare you for the final examinations. In the entire semester, you will have to attempt **TWO** assignments. Assignment 1 will cover the topics from Unit 1 and Unit 2. Assignment 2 will cover topics from Unit 3 and Unit 4. All assignments are tutor marked assignments and carry 50 marks each. In internal assessment assignment 1 and assignment 2 shall carry the weightage of 20 marks respectively.

As the assignment is integral part of your internal assessment, it is compulsory to attempt the assignment. Therefore, plan well for the attempt of your assignments. Before attempting the assignment, please read **IMPORTANT INSTRUCTIONS** and all questions carefully and then arrange your answers in a rational sequence.

Dear student, please note following points regarding attempt of assignments:

- Assignments should be submitted in your own handwriting.
- Use A4 size plain papers for assignments.
- Carefully follow the instructions and ensure that you have attempted all questions.
- Answers should be correct and neatly written.
- Submit assignment of each subject in a separate file.
- Each assignment should consist of a title page containing the details of the student and subject (Template of title page is attached as **ANNEXURE**. Take print out of that annexure on A4 size page and fill it in your handwriting for each subject.)

Instructions for students regarding Submission of Assignments:

- Before submitting the assignment, please retain one copy of your assignment with you and take receipt of the assignment from your study centre.
- Last date of submitting 1st Assignment of all subjects is 10th March, 2015.
- Please tag a self addressed A4 size envelope with assignments of all subjects separately.

Work Hard and Perform Well!

INFORMATION MANAGEMENT

MCA-101

IMPORTANT INSTRUCTIONS:

1. SECTION-A All questions are compulsory and each question carries 2 marks.
2. SECTION-B All questions are compulsory and each question carries 10 marks.

SECTION: A

All questions are compulsory and each question carries 2 marks.

1.
 - a. What we mean by track pad?
 - b. Differentiate between application and system software.
 - c. Compare and contrast various types of memories with reference to cost.
 - d. List various components of telecommunication system.
 - e. List various advantages of database approach to data management over traditional file system of data management.
 - f. Define entity relationship model and why we use it.
 - g. Differentiate between information and knowledge.
 - h. What we mean by open information system?
 - i. What is the role of information system in any organization?
 - j. List various types of information systems.

SECTION: B

All questions are compulsory and each question carries 10 marks.

2. Explain in detail latest printers available in market and also the companies that offer printers.
3. Explain in detail the concept of data/ information extraction .
4. Explain various concepts and components of database approach of data management.

OBJECT ORIENTED PROGRAMMING IN C++

MCA-102

IMPORTANT INSTRUCTIONS:

1. SECTION-A All questions are compulsory and each question carries 2 marks.
2. SECTION-B All questions are compulsory and each question carries 10 marks.

SECTION: A

All questions are compulsory and each question carries 2 marks.

1.
 - a. Define Inheritance and how it helps achieve the objective of reusability.
 - b. Differentiate between open and close modules.
 - c. Differentiate between structure and union data types.
 - d. Give an example of enumerated data type or ENUM data type.
 - e. What we mean by function overloading?
 - f. Write various rules that should be followed while naming an identifier.
 - g. What is the outcome of applying relational operator?
 - h. Give an example of automatic type conversion.
 - i. What is the main difference between while and do-while loop structures?
 - j. What is the role of continue statement in C++?

SECTION: B

All questions are compulsory and each question carries 10 marks.

2. WAP to create following paradigm (if user inputs 3)

```
      *
     * * *
    * * * * *
```

3. WAP to do matrix multiplication with the help of pointer.
4. WAP to reverse the elements of an array using functions.

COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE

MCA-103

IMPORTANT INSTRUCTIONS:

1. SECTION-A All questions are compulsory and each question carries 2 marks.
2. SECTION-B All questions are compulsory and each question carries 10 marks.

SECTION: A

All questions are compulsory and each question carries 2 marks.

1.
 - a. What is a Control Unit? What are two different Control unit design techniques?
 - b. What is an Instruction Format?
 - c. What is the function of Memory Data Register?
 - d. Differentiate between Direct and Indirect Addressing mode?
 - e. Give examples of Instructions included in Register Direct Addressing Mode and Memory Direct Addressing Mode (Absolute Addressing).
 - f. Write down the instructions that load D register by the contents of memory location 3500 H. Then move the contents to register C.
 - g. What is the significance of 'XCHG' and 'SPHL' instructions?
 - h. What are the functions of accumulator?
 - i. List the interrupts of 8085.
 - j. Define Asymmetric Network?

SECTION: B

All questions are compulsory and each question carries 10 marks.

2. How 8085 microprocessor executes a program?
3. Construct an 8-input Omega network using 2 x 2 switch modules in multiple stages. Show the routing of the message from input 010 to output.
4. Explain the role of stacks in programming. What are Push and Pop operations? What is their significance?

ACCOUNTING AND FINANCIAL MANAGEMENT

MCA-104

IMPORTANT INSTRUCTIONS:

1. SECTION-A All questions are compulsory and each question carries 2 marks.
2. SECTION-B All questions are compulsory and each question carries 10 marks.

SECTION: A

All questions are compulsory and each question carries 2 marks.

1.
 - a. Define Book-keeping.
 - b. List various conventions of accounting.
 - c. what are the various features of double entry system?
 - d. Explain the rules for journalizing.
 - e. List various objectives of creating trial balance.
 - f. Which errors are not disclosed by the trial balance?
 - g. What information do we get from balance sheet?
 - h. Give at least two examples each of fixed, current and intangible assets.
 - i. What are the roles of financial management?
 - j. What is the meaning of fund and flow of fund?

SECTION: B

All questions are compulsory and each question carries 10 marks.

2. Prepare profit and loss account from the following balances of Mr. D K Gupta for the financial year ending 31.3.2001. gross profit transferred from the trading account is Rs. 25,000.

Office rent Rs. 3000	Salaries Rs. 8,000
Printing expenses Rs. 2,200	Stationeries Rs. 2,400
Tax, Insurance Rs. 1,400	Discount allowed Rs. 600
Discount received Rs. 400	Travelling expenses Rs. 2,600
Advertisement Rs. 3,600	

3. **Record the following transactions in the Journal,**

Oct 1st: Aman started business with a capital of Rs. 80,000
3rd : Bought goods from Karan on credit Ps. 20,000
4th : sold goods to Ram Rs.25,000

5th : Cash purchases Rs. 25,000
7th : Cash sales Rs. 15,000
9th : Goods returned to Karan Rs. 2,000
10th: Bought furniture for Rs.15,000
11th : cash paid to Karan Ps. 12,000
14th : Goods taken by Sachin for personal use Rs. 3,000
15th : Cash received from Ram Rs. 12,000
16th : Took loan from Naveen Rs. 30,000

4. What is the meaning of double entry system? List various rules of double entry system?
Also Give various advantages and disadvantages of double entry system.

TECHNICAL COMMUNICATION

MCA-105

IMPORTANT INSTRUCTIONS:

1. SECTION-A All questions are compulsory and each question carries 2 marks.
2. SECTION-B All questions are compulsory and each question carries 10 marks.

SECTION: A

All questions are compulsory and each question carries 2 marks.

1.
 - a. Describe briefly the meaning of formal communication?
 - b. Mention any two advantages of non-verbal communication.
 - c. Differentiate between internal and external communication.
 - d. List various psychological barriers to communication.
 - e. Discuss briefly the roles of sender and receiver in the communication process.
 - f. Is a myth or a reality that messages sent and messages received are identical?
 - g. Write short notes the following:
 - (a) Video- Conferencing
 - (b) Considerateness as an essential of effective communication
 - h. Differentiate between Skimming and Reading. Also list the different types of reading?
 - i. Discuss briefly the elements of business letter?
 - j. Distinguish between an appreciation letter and acknowledgement letter.

SECTION: B

All questions are compulsory and each question carries 10 marks.

2. (a) Assuming yourself to be the Controller, Software Operations, prepare an appreciation letter for Mr. Amit Bhatia who has been working in your company as a Software Engineer. Mr. Amit has made a valuable contribution in completion of a prestigious software project with your company. Give all the necessary details.

(b) The non- verbal communication of the speaker is as important as the verbal communication. Explain.
3. Discuss the role of communication in a progressive society.
4. Make the précis of the following passage and give it a suitable title:

The pioneers of the teaching of science imagined that its introduction into education would remove the conventionality, artificiality, and backward-lookingness which were characteristic of classical studies, but they were gravely disappointed. So, too, in their time had the humanists thought that the study of the classical authors in the original would banish at once the dull pedantry and superstition of mediaeval scholasticism. The professional schoolmaster was a match for both of them, and has almost managed to make the understanding of chemical reactions as dull and as dogmatic an affair as the reading of Virgil's Aeneid.

The chief claim for the use of science in education is that it teaches a child something about the actual universe in which he is living, in making him acquainted with the results of scientific discovery, and at the same time teaches him how to think logically and inductively by studying scientific method. A certain limited success has been reached in the first of these aims, but practically none at all in the second. Those privileged members of the community who have been through a secondary or public school education may be expected to know something about the elementary physics and chemistry of a hundred years ago, but they probably know hardly more than any bright boy can pick up from an interest in wireless or scientific hobbies out of school hours.

As to the learning of scientific method, the whole thing is palpably a farce. Actually, for the convenience of teachers and the requirements of the examination system, it is necessary that the pupils not only do not learn scientific method but learn precisely the reverse, that is, to believe exactly what they are told and to reproduce it when asked, whether it seems nonsense to them or not. The way in which educated people respond to such quackeries as spiritualism or astrology, not to say more dangerous ones such as racial theories or currency myths, shows that fifty years of education in the method of science in Britain or Germany has produced no visible effect whatever. The only way of learning the method of science is the long and bitter way of personal experience, and, until the educational or social systems are altered to make this possible, the best we can expect is the production of a minority of people who are able to acquire some of the techniques of science and a still smaller minority who are able to use and develop them.

ANNEXURE

Title Page of Assignment

1	Name of the Student	
2	Registration Number	
3	Assignment Number (1/2)	
4	Subject Name	
5	Subject Code	
6	Date of Submission	

Signature of Student

Signature of Coordinator

FOR OFFICE USE

Total Marks obtained: _____

Evaluated by: _____

(Signature of evaluator)