

ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD
(Department of Computer Science)

WARNING

1. **PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.**
2. **SUBMITTING ASSIGNMENTS BORROWED OR STOLEN FROM OTHER(S) AS ONE'S OWN WILL BE PENALIZED AS DEFINED IN "AIOU PLAGIARISM POLICY".**

Course: Fundamentals of Computer (3400)
Level: Bachelor

Semester: Spring, 2013
Total Marks: 100
Pass Marks: 50

ASSIGNMENT No. 1
(Units: 1–4)

Note: All questions are compulsory. Each question carries equal marks.

- Q. 1 (a) Compare the information processing capabilities of human beings to those of computers with respect to speed, accuracy, reliability, consistency, and memory capability.
- (b) What do you mean by a computer virus? What are the main types of computer viruses that harm software and hardware?
- Q. 2 (a) What do you mean by a programming language? What are the main types of programming languages? Discuss at least three languages in detail.
- (b) What is the relationship between the operating system, system software, and application software? What are their main objectives?
- Q. 3 (a) What are the three main categories of optical laser disks? Describe at least two applications where rewritable optical laser disks would be preferred over hard disks for storage.
- (b) What is the basic difference between SDRAM technology and nonvolatile memory technology?
- Q. 4 (a) What do you know about ASCII, Extended ASCII, and ANSI encoding schemes? What are their major characteristics?

- (b) What is the major difference between Serial and Parallel data transmission? Explain with the help of diagram.
- Q. 5 (a) Discuss some computer buses available on the motherboard of general purpose PC system?
- (b) For a given computer, which type of memory would have the greatest capacity to store data and programs: Cache or RAM? RAM or Registers? Registers or Cache?

ASSIGNMENT No. 2

(Units: 5–8)

Total Marks: 100

Pass Marks: 50

Note: All questions are compulsory. Each question carries equal marks.

- Q. 1 (a) What do you mean by point and draw devices? List and describe them briefly.
- (b) Which type of OCR scanner is designed to read documents of varying sizes?
- Q. 2 (a) Explain with the help of a diagram the four basic steps involved in speech recognition.
- (b) What is meant by windows? Differentiate windows and non-windows applications? What are the three types of windows?
- Q. 3 (a) Describe the function of word processing software.
- (b) What are the frequently used word processing features? Explain how they are different from older versions.
- Q. 4 (a) Give examples of the three types of entries that can be made in a spreadsheet.
- (b) Give an example of each of the four types of ranges.
- Q. 5 (a) All commercial spreadsheet packages manipulate rows and columns of data in a similar manner. What makes one spreadsheet package more desirable than another?
- (b) What is the relationship between a field, a record, and the structure of a database?

3400 Fundamentals of Computer

Credit Hours: 4 (3+1)

Recommended Book:

Computers, By Larry Long, Nancy Long 6th Edition

Course Outlines:

Unit No. 1 Basic of Computer

Introduction, History of Computer, Types of Computer, Computer Organization

Unit No. 2 Computer Software

Software Introduction, Types of Software, Pc Platforms, Computer Virus

Unit No. 3 Data Processing & Storage

Data Processing Techniques, Data Storage (Bit, Byte, Ram, Rom, Cache Memory, and Secondary Storage (FDD, HDD, Tape, CD)

Unit No. 4 The Processor

Bus, Port, The Processor Characteristics, Word Size, Processor Speed, Ram Capacity

Unit No. 5 Input and Output Devices

Keyboard and Its Types, Point and Draw Devices, Scanner, Digital Camera, and Speech, Recognition System and Multimedia

Monitor (Graphic Adopter, Size, Resolution, and Types of Monitors), Printers and Types (Dot Matrix, Ink Jet, and Laser), Plotters (Raster and Pen), Presentation Graphics, and Special Function Terminal (ATMs, Poss)

Unit No. 6 Windows

Windows Introduction, Understanding Windows Help, The Desktop, and Types of Windows (Application, Document, and Dialog), Elements of an Application Windows, Understanding Folders, Copying, Deleting, and Moving Files

Unit No.7 Word Processing (Ms Word)

Basic Concepts and Features, Creating, Saving, Editing, Formatting, and Printing Documents, Working on Multiple Documents

Unit No. 8 Electronic Spreadsheet (Ms Excel)

Basic Concepts and Features, Creating, Saving Excel Sheet, Editing the Sheet, Managing Formula, Formatting the Sheet, and Printing the Sheet, Working on Workbook

Unit No. 9 Basics of Internet Usage

Introduction, World Wide Web, and Web Sites, Introduction to Internet Based Services, and use of Email