INTRODUCTION TO INFORMATION TECHNOLOGY (MARKS 100)
Module B   (3 hours)

Instructions:

(i)   Modular candidates who have submitted the Certificates of the Course of Computer Practical Training (CCPT) by Spring 2001 Examination will attempt both the sections.

(ii) FE-2 candidates who have submitted the CCPT by Autumn 2001 Examination and have opted for Modular Scheme will attempt both the sections.

(iii) All other candidates will attempt section 'A' only.

Section 'A' – 70 Marks (2 Hours)

Q.1   Information Systems are divided into several classes based on the functions they are expected to perform. Each class serves different needs and types of users. Identify and briefly explain at least two classes of information system applications.   **(10)**

Q.2   Pakers Dairies (PD) is a large producer of standardized UHT milk with countrywide distribution chain. During the board meeting one of the directors was highly critical of the type of information being produced by the Management Information System (MIS) and the frequent delays in generating the reports.

As the head of the Strategic Planning Department of the company you are required to advise the MIS Manager on the following issues:

(a)   Why does the senior management require information? Does the information provided by MIS suffice the senior management's needs or another type of information system will be required to fulfill their information requirements?   **(03)**

(b)   What type of information is required by the middle management? How often do they need it?   **(03)**

(c)   What type of information is required by the junior management? Why do they need it?   **(03)**

Q.3   List down eight basic tasks of an operating system.   **(08)**

Q.4   (a)   Distinguish and differentiate between "Open Loop Systems" and "Closed Loop Systems". Give appropriate diagrams and examples.   **(10)**

(b)   What is meant by double loop feed back? How is it different from single loop feedback?   **(05)**

Q.5 Terminal is a device for entering data in a data communication system. What are the three types of terminals? Briefly explain the difference between the three. **(06)**

Q.6 Registers are the special memory units. They are used to retain the information temporarily. List down the objectives of using registers. Discuss at least four registers commonly available in computers. **(06)**

Q.7 Programming languages can be divided into two main categories, low level languages and high level languages. Identify the main differences between the two categories and give two examples of each. **(10)**

Q.8 The Bookworm's Corner is a well known chain of bookstores. Its management is planning to expand the business by venturing into e-business. The management has decided to allow the use of credit card facility to its customers and is considering various techniques to safeguard against unauthorized use of this facility. You are required to describe the following techniques that may be used for the purpose:

(a) Encryption **(03)**
(b) Secure Electronic Transactions Protocol **(03)**

Section 'B' – 30 Marks (1 Hour)

Q.9 A loan of Rs. 50,000 is repayable in 5 equal monthly instalments of Rs. 11,550 each. Mark-up rate per month is 5 %. Every instalment consists of two portions:

(i) mark-up portion, calculated on the principal outstanding at the beginning of the month; and
(ii) principal portion, calculated as difference of the instalment amount and the mark-up amount.

Principal outstanding after every instalment is calculated by subtracting the principal portion of the instalment from the principal outstanding at the beginning of the month.

Required:

Construct a loan repayment schedule using the following format. You are only required to show the Microsoft Excel formulae used in each cell:

	A	B	C	D	E
1	Principal outstanding at the beginning of the month	Instalment amount	Mark-up portion	Principal portion	Principal outstanding at the end of the month
2	50,000	11,550			
3					
4					
5					
6					

(12)

Q.10 Consider the following table prepared on Microsoft Excel:

	A	B	C	D	E	F	G	H	I
1	First Name	Last Name	Complete Name	Urdu	IT	Law	Total	%age	Rank
2	Sana	Siddiq		60	40	70			
3	Rabia	Pervez		65	35	75			
4	Faiz	Ali		55	50	65			
5	Moiz	Aslam		70	48	70			
6									
7									
8									
9									

Required:

Specify the formula in each of the following cases:

(a)	In cell C2, merge the First Name and Last Name.	**(01)**
(b)	Calculate total marks of Rabia in cell G3.	**(01)**
(c)	Calculate the percentage of marks obtained by Faiz in cell H4 (Note: Maximum marks for each subject is 100)	**(01)**
(d)	Calculate the average marks obtained by the students in 'Urdu' in cell D6.	**(01)**
(e)	Display highest marks in 'IT' in cell E7.	**(01)**
(f)	Determine the difference between highest and lowest marks in the subject of 'Law' in Cell F8.	**(01)**
(g)	Display the 'Rank' of each student in 'Column I' based on total marks.	**(02)**

Q.11 Consider the following functions of 'Change Case Dialogue Box' in Microsoft Word and describe each of them briefly:

(a)	Sentence Case	**(01)**
(b)	Lowercase	**(01)**
(c)	Uppercase	**(01)**
(d)	Title Case	**(01)**
(e)	Toggle Case	**(01)**

Q.12 What will be the result of the following MS Excel functions?

(a)	=ABS(A11)	**(01)**
(b)	=AVERAGE(A3,A4,A5)	**(01)**
(c)	=MAX(B3:B12)	**(01)**
(d)	=ROUND(B3,2)	**(01)**
(e)	=SUMIF(B4:B13,">10")	**(01)**

(THE END)