Computer Systems and Applications

April 2006

Time: 3 Hours
Marks: 100
NB:

1. Attempt either **Part A or Part B. Question no. 1 is compulsory.**
2. In **section I**, attempt **any two** questions from Question Nos. 2 to 5
3. In **section 11**, attempt **any two** questions from Question Nos. 6 to 9
4. All answer should be written in the **same** answer-book.
5. Figures to right indicate maximum marks. **All questions carry equal marks**

PART A

Q.1 (a) Answer the following in **one** sentence 3

- o   (i) What is the use of RAM?
- o   (ii) State one difference between DOS and WINDOWS.
- o   (iii) Give full form of HTTP.

(b) Answer the following in C:

(i) What are the uses of getchar() and putchar() ? 2
(ii) What are the different types of storage class specifiers **in C.?** 2
(iii) Give one example of logical operator in C. 1
(c) State whether the following are **true or false: -** 3

- o   (i) DOS is multitasking Operating System.
- o   (ii) In MS-WORD menu bar is always displayed while editing a document.
- o   (iii) In MS-WORD, PAGE SETUP option allows you to add page number to a document.

(d) Answer the following in **FoxPro:**

- (i) Explain the use of. - 3
-
    - (I) MOD ()
    - (II)RECNO ()
    - (III)DTOC( )
-
- (ii) Explain the following: - 2
-
    - LOCATE (11) SET DELETED ON/OFF

SECTION I

Q.2 (a) Explain briefly about the following: - 6

- (i) HARD DISK
- (ii) WEBSITES
- (iii) WAN

(b) What is the output of the following C program: - 4

```
#define g(x) x> 10? 20-x: x*x
main( )
{int a=3, b=7,c= 11;
b+=a++;
a*=2;
c+=g(a);
b+=g(c);
printf ("%4d%4d%4d\n",a,b,c);}
```

(c) A wholesaler gives discount on the basis of order amount as follows:-

- First Rs. 8000 nbsp;   10% discount
- Next Rs. 20000   20% discount
- Excess   30% discount

Write a program in C to input customer name and order amount and print customer name, order amount and discount.

Q.3 (a) Answer in one or two lines the uses of 6

- (i) MODEM
- (ii) LAN
- (iii)SEARCH ENGINES

(b) What does the following C program print? 8

o main()
  {int k=O,t=O;
  for(k= l; k<=l0; k+=3)
  {if(k%2= =1) t+=k; else t - -;
  printff"%3d",t); }}
 (c) Write a program in C to input 10 observations and find and print mean and mean deviation from mean 6
     o
Q.4 (a) State whether the following are true or false : - 6

1. Both sides of CD-ROM can be used for data storage.
2. Floppy disk is a secondary storage device.
3. Windows Exploiter is a Web Browser.
4. Post Office Protocol is used to fetch E-Mail.
5. A serial printer prints one line at a time.
6. Every Computer requires Monitor.

(b) Rewrite the following sequence of if statements using switch(). 4

o if(tp=='m')printf("MANAGER\n");
  o else if(tp=='n')printf("Dep. MANAGER\n");
  if(tp=='o') printf("OFFICER\n");
  else printf("CLERICAL STAFF\n");
   (c) Write a program in C to input cost of machinery and rate of depreciation and then print a table showing year and depreciation for the first five years where depreciation is calculated using reducing balance method. 4

Q.5 (a) Explain briefly about following:- 6

o (i) Non -impact Printer (ii) TCP/IP protocol (iii) UNIX
  (b) Write a C program to find and print the sum of: 4
  22 x 3+ 42 x 7+6 2 x 11+ . . . +202 x 39

(c) Write a Program in C to accept 10 pairs of x and y and then calculate and print Karl Pearson's correlation coefficient using the following the following formula:

PART B

Q.1 (a) Answer the following in one sentence: - 3

- (i) What is the use of RAM?
- (ii) State one difference between DOS and WINDOWS.
- (iii) Give full form of HTTP.
  (b) Answer the following in MS-EXCEL: -
  (i) Explain the use of the following functions 2
  (I) MAX ( ) (II) UPPER ( )
  (ii) Explain how to save a worksheet with a Password for protection. 2
  (iii) Explain how to add a new row after the 10 row. 1
  (c) State whether the following are true or false: - 3

- (i)DOS is multitasking Operating System.
- (ii)In MS-WORD menu bar is always displayed while editing a document.
- (iii)In MS-WORD, PAGE SETUP option allows you to add page number to a document.
  (d) Answer the following in FoxPro: -

  (i) Explain the use of: - 3
  (I) MOD ( ) (II) RECNO (III) DTOC ( )
  (ii) Explain the following: - 2
  (I) MOD ( ) (II) RECNO (III) DTOC ( )
  Q.2 (a) Explain briefly about the following : - 6
  (i) HARD DISK (ii) WEBSITES (iii) WAN
  (b) Answer the following in MS-EXCEL: 4
A worksheet contains employee information such as name, basic pay and department entered in columns A, B and C respectively in first 25 rows. In

first row heading is entered and in other rows data has been entered. Explain the steps to compute DA, Additional Pay and Gross pay in columns D,E and F respectively using the policies. DA 90 % of basic pay for basic pay not exceeding Rs. 8000. otherwise it is 65 % of basic pay. Additional Pay Rs. 1500 for "SALES" department and Rs. 1200 for other departments. Gross Pay = Basic Pay + DA + Additional Pay

(c) Answer the following in MS-EXCEL 6

The following data has been entered in a worksheet

	A	B	C	D	E
1		Weight in Kgs (x)	Frequency (f)	fx	fX^2
2		48	3		
3		52	7		
4		55	12		
5		60	8		
6		68	6		

Explain the steps to find the mean and standard deviation of weight using the formula:

Q.3 (a) Answer in one or two lines the uses of : - 6
 (i) MODEM (ii) LAN (iii) SEARCH ENGINES
 (b) Answer the following in MS-EXCEL : - 4
 Explain the difference between Paste and Paste Special option in edit menu
 (c) Answer the following in MS-EXCEL 6
 Marks out of 100 scored by 40 students are entered in a worksheet in cells A3 to A42.
 Explain the procedure to prepare a frequency table with class intervals as: below 35, 35-45, 45-60,60 and above.
Q.4 (a) State whether the following are **true** or **false** : - 6

- o (i) Both sides of CD-ROM can be used for data storage.
- o (ii) Floppy disk is a secondary storage device.

- o (iii) Windows Explorer is a Web Browser.
- o (iv) Post Office Protocol is used to fetch E-Mail.
- o (v) A serial printer prints one line at a time.
- o (vi) Every Computer requires Monitor.

(b) Answer the following in MS-EXCEL 4

What are one-input and two-input tables?

Using Data, Table command explain how to prepare a one-input table to display simple interest values for a principal amount of Rs.20000 for a period of 3 years when the rate of interest varies as 4.5%, 5%, 6%, 6.5%, 8% per annum. Use your own cell addresses.

(c) Answer the following in MS-EXCEL 6

The following data has been entered in a worksheet

	A	B	C
1	Name	Dept.	Salary
2	RAJAN	STORES	12,000
3	SUMA	ACCOUNTS	15,500
4	KIRAN	PRODUCTION	18,000
5	JAYESH	ACCOUNTS	9,600
5	AMIT	PRODUCTION	22,000
5	ARTI	STORES	11,600

Based on these values, write steps to

- o (i) Arrange the data in the order of Dept and further in the order of Name.
- o (ii)To display only those rows where salary is above Rs. 15000.
- o (iii)To display all the rows except the 'STORES' dept.

Q.5 (a) Explain briefly about following: - 6

- o (i) Non -impact Printer (ii) TCP/IP protocol (iii) UNIX

(b) Answer the following in MS-EXCEL 4

State whether the following are **true** or **false**: -

- o (i) Opening a file as read only does not prevent you from making changes but it prevents you from saving the changes to a file with same name.
- o (ii) In order to replace a cell contents with a different entry, it is required to clear the cell first.
- o (iii) Macro's can be created using Tools Menu,
- o iv) A work book can contain at most three worksheets.

(c) Answer the following in MS-EXCEL 4

A worksheet contains Roll no. and marks out of 100 in 4 subjects entered in columns A, B, C, D, E respectively in first 26 rows. In the first row, heading is entered and in subsequent rows data has been entered. Explain the procedure to find average and grade in columns F and G respectively. Grade is to be assigned as follows:

Average	Grade
75 or more	A
60 or more and below 75	B
below 60	C

SECTION II

Q.6 (a) What are the main icons displayed on the desktop of Windows 95? 2

(b) What is the use of File menu in MS-WORD? Mention any three options. 4

(c) Write FoxPro commands to do the following: 10

- (i) To make changes in record number 15.
- (ii) To round off contents of a memory variable R to it's nearest 10.
- (iii) To display the 2nd 3rd 4thand 5th characters of a character memory variable MVL.
- (iv) To find total number of records where field BASIC is less than 5000 and store it in R.
- (v) To display "FIBONACCI SERIES" beginning from the 5th row &10th column of the screen.
- (vi) To delete record numbers from 6 to 10.
- (vii) To display contents of character memory variable NM after removing the leading blank spaces.
- (viii) To accept a date from the keyboard to a memory variable DOB from 10th row and 15th column.
- (ix) To sort the table in use according to date of birth (DOB) field to another file DSORT.dbf.
- (x) To increase the contents of a field called AGE by 1 in every record.

Q.7 (a) What is use of Windows Explorer in Windows-95? 2

(b) Explain the use of Tools menu in MS-WORD? Mention any three options. 4

(c) There is a file called STUDENT.dbf containing fields Roll no. (RNO, N, 4, 0), Name (NAME, C, 20), marks in four subjects,(M1,M2,M3,M4all Numeric,3,0)write a fox pro program to print a report showing roll no., name and marks in 4 subjects of those who are passing in. the 4 subjects by scoring 35 or more. 4

(d) Explain the difference between the following in FoxPro: 6
(i) SORT & INDEX (ii)? & DISPLAY (iii) SET CONFIRM ON & SET CONFIRM OFF

Q.8 (a) What is taskbar in Windows-95. 2

(b) Explain the procedure to open a file called "HISTORY.DOC" which is in My Documents folder and reach the beginning of 5th page of this document using MS-WORD. 4

(c) There are 2 tables first one called "WMPl.dbf' containing field's worker no.(WN,N,3,0),name (NAME,C,10) and basic pay(BPAY,N,10,2). Another table "WMP2.dbV' containing fields worker no.(WN,N,3,0), department(DEPT,C,10) and bonus (BONUS,N, 10,2). Write command in FoxPro for the following.

(i) To display worker no., name, basic pay, department and bonus for every record. 2

(ii) To compute and store bonus at a new rate of 70% of basic pay. 2
(d) There is a file called PAY.dbf containing field's employee no. (E_NO, N, 4), name (NAME, C, 20) and address (ADDR, C, 50). Write a data entry program to add new records to this file. This program must allow the user to continue as long as user wants. 6

Q.9 (a) What is the use of Recycle Bin in Windows-95. 2
 (b) What is the use of Format menu? Mention any 3 options in the same. 4
 (c) Explain the following commands or functions in FoxPro: 4
o (i) SET DECIMALS TO (ii) FOUND ( ) (iii) ACCEPT TO (iv) RECALL
 (d) There exists a table STOCK.dbf containing fields item number (INO, C, 6), item name (INAME, C,15), price (PRICE, N, 7, 2), Quantity in stock (QST, N, 3). Write a program in FoxPro requesting the user to enter item name and the program should display item no, price and quantity in stock whenever it is found in the file otherwise display "Record Not Found". This program should allow the user to continue as long as he wants.