HS/XI/V/CT/Paper-I/20

2020

COMPUTER FUNDAMENTALS, OPERATING SYSTEMS AND UTILITIES

COMPUTER TECHNIQUE (Paper – I)

(Vocational Stream)

(Theory)

Full Marks : 100

Time : 3 hours

The figures in the margin indicate full marks for the questions

General Instructions :

(i) Write all the answers in the Answer Script

(ii) Attempt Part — A Objective Questions serially

(iii) Attempt all parts of a question together at one place

(PART : A — OBJECTIVE)

(*Marks* : 48)

SECTION– I

(*Marks :* 30)

1. Fill in the blanks from the list of words/phrases given below: $1 \times 10 = 10$

(a) While typing a paragraph, one does not have to press Enter key to move to the next line. This feature is called _____.

(PART : B - DESCRIPTIVE)

(*Marks* : 52)

GROUP - I

(*Marks* : 36)

Answer *ANY SIX* questions:

5. Write a short note on the characteristics of computers. 6

6. How do you differentiate an Interpreter from a Compiler? How do they differ from an Assembler? 4 + 2 = 6

7. Give the syntax and explain the purpose of the following commands: 3 + 3 = 6

   i. ATTRIB

   ii. XCOPY

8. What is meant by cell referencing? Explain the difference between Relative and Absolute cell referencing. 2 + 4 = 6

9. What are *anchored* and *floating* toolbars. 2 + 4 = 6

10. What is a recycle bin? How will you recover and remove deleted files/folders from recycle bin? What is the default size of the recycle bin? 2 + 3 + 1 = 6

11. What are Bullets and Numbering and why are they used in a document? 3 + 3 = 6

2. True or False: $1 \times 10 = 10$

(a) An ink jet printer is slower than a laser printer.

(b) The shortcut key to save a document is Shift+S.

(c) A High Level Language is machine dependent.

(d) To cancel the last editing, we can use the undo button.

(e) DEL and ERASE are two commands with a different purpose.

(f) XCOPY is an external command.

(g) The command for listing the files in specified directory and all subdirectories is DIR/S.

(h) The default alignment settings in EXCEL for text and values are right and left respectively.

(i) Every octal digit can be represented as an eight bit binary number.

(j) Information stored in secondary memory is permanent.

(d) A storage that supplements the primary internal storage of a computer

i. secondary storage

ii. primary storage

iii. back-end storage

iv. background storage.

(e) Software designed for a specific purpose is called as

i. system program

ii. application program

iii. specific program

iv. assembly program

(f) A button is

i. a graphical representation of an option

ii. a command that activates an option

iii. like one on a household appliance that activates an action

iv. all of the above

(g) A folder is

i. an organizational tool used to store files

ii. synonymous with directory, but folder is the newer term

iii. both i. and ii. are correct

iv. none of the above

(h) Which file in MSDOS contains external commands that are loaded during booting process?

i. IO.SYS

ii. MSDOS.SYS

iii. COMMAND.COM

iv. CONFIG.SYS.

(i) The REN command

i. is used to change the name of the file or files you specify

ii. cannot be used to rename files across drives

iii. cannot be used to move files to a different location

iv. all of the above

(j) To display the names of files present in the directory in wide format, the command used is

i. dir/p

ii. dir/s

iii. dir/w

iv. None of the above

3. Multiple Choice Questions: $1 \times 10 = 10$

(a) The basic operations performed by a computer are

i. Arithmetic operation

ii. Logical operation

iii. Storage

iv. All of the above

(b) Which file in MSDOS contains internal commands that are loaded during booting process?

i. IO.SYS

ii. MSDOS.SYS

iii. COMMAND.COM

iv. CONFIG.SYS

(c) An Assembly Language is

i. Processor independent

ii. Processor dependent

iii. Problem dependent

iv. None of the above

SECTION – II

(*Marks* : 18)

4. Write short notes in not more than three sentences each *(Any six).* $3 \times 6 = 18$

a. System Software.

b. List the steps to convert an existing text into a table in Word.

c. Distinguish between RAM and ROM.

d. What are tab stops? List down the various types of tabs supported in Word.

e. What is meant by Font? How is it useful in formatting characters?

f. What is a Hard Disk?

g. Explain the terms Superscript and Subscript text.

h. Mention two differences between internal and external commands in DOS.

(b) The DOS command used to rename files is _____.

(c) All dot-matrix printers are _____ devices.

(d) A built-in number that identifies a location in storage is the _____.

(e) The number of bits in 4 bytes is _____.

(f) The speed at which a microprocessor executes instructions is called _____ speed.

(g) A _____ chart shows the proportional size of items that make up a data series to the sum of the items.

(h) The shortcut key to paste text in a document is _____.

(i) The intersection of a column and row is known as _____.

(j) The scanner is an example of an _____ device.

List of words/phrases:

Ctrl+C	16	NEWNAME	memory	32	Input
non-impact	impact	Ctrl+V	RENAME or REN	address	word wrap
worksheet	bar	cell	processing	Ctrl+X	pie

12. What is usefulness of PowerPoint? 6

GROUP – II

(*Marks* : 16)

Answer *any two* questions:

13. What is an Assembly language? How does it differ from a High Level Language. 4 + 4 = 8

14. What is meant by scrolling in MSWord? Write down the shortcut keys to: $2+1\times6=8$

    (i) Create a New document

    (ii) Open and existing document

    (iii) Save a document

    (iv) Copy text in a document

    (v) Cut text in a document

    (vi) Paste text in a document

15. What do the terms Desktop and Icons mean? Explain what are check boxes and radio buttons in Windows. $2\times4=8$

16. Explain the difference between Left, Center, Right and Justified alignments. When you do think left justification is preferable over justified alignment? 4 + 4 = 8

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UNIT– III

11. Write a note on 'switch'? Mention its syntax with example? 3 + 3 = 6

12. What is the purpose of 'while' statement? When is the logical expression evaluated. What is the minimum number of times that a while loop can be executed? 6

13. What is a Union? What are the declaration of a Union? Explain with example? 2 + 4 = 6

UNIT – IV

14. What are arguments? What is their purpose? What other term is sometimes used for an argument? 3 + 2 + 2 = 7

15. What are function prototype? What is their purpose? Where are function prototype normally placed in a program? 3 + 2 + 2 = 7

16. How arguments are passed to functions? What is the difference between 'passing by value' and 'passing by reference'. $3\frac{1}{2} + 3\frac{1}{2} = 7$

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HS/XI/V/CT/Paper-II/20

2020

COMPUTER PROGRAMMING IN C

COMPUTER TECHNIQUE (Paper - II)

(Vocational Stream : Theory)

Full Marks : 100

Time : 3 hours

The figures in the margin indicate full marks for the questions

General Instructions :

(i) Write all the answers in the Answer Script

(ii) Attempt Part — A Objective Questions serially

(iii) Attempt all parts of a question together at one place

(PART : A — OBJECTIVE)

(*Marks* : 50)

SECTION – I

1. Fill in the blanks from the list of words/phrases given at the end: $1 \times 20 = 20$

(a) The expression containing all the integer operands is called _____ expression.

(b) The operator _____ cannot be used with real operands.

(d) In 'switch' statement, each case instance value must be _____?

(i) Constant

(ii) Variable

(iii) Special symbol

(iv) None of the above

(e) Recursive functions are executed in a?

(i) First In First Out order

(ii) Load balancing

(iii) Parallel Fashion

(iv) Last In First Out order

4. Write the following in not more than 4 to 5 sentences each *(Any five)* : $3 \times 5 = 15$

(a) Identifiers in C

(b) Bitwise operators

(c) What is Algorithm?

(d) 'Comma' operator

(e) Operator precedence

(f) 'Type Cast' in C language

(g) What are 'members' in structure.

(m) The _____ statement is used to alter normal sequence of execution by transferring control to some other part of program.

(n) The _____ statement is use to bypass the remainder of the current pass through a loop.

(o) Return statement returns only _____ expression.

(p) When a function call itself, each innovation gets a fresh set of _____ variables, independent of the previous invocation.

(q) An array always contains data of _____ type.

(r) Array elements can be accessed _____.

(s) A contiguous list can be implemented using an _____.

(t) A pointer variable can be assigned _____ of ordinary variable.

List of Phrases/words :

Integer	Macro	Reserved	Value	Address
String	Six	String constant	Automatic	Integer
Float	Logical	Continue	Seven	*
goto	randomly	Sizeof	Single value	real
union	array	Same	structure	%

2. State whether the following statements are *True* or *False:* $1 \times 10 = 10$

(a) One cannot have octal or hexadecimal integer constants in C.

(b) Unsigned integers can have values ranging from negative minimum to a positive maximum.

(c) A 'char' type has an equivalent integer interpretation; so it is really a special kind of short integer.

(d) When a variable 'i' is incremented with the operation i++ in a statement, it means that 'i' has to be incremented before the statement is executed.

(e) Relational operators have lower precedence than arithmetic operators.

(f) The 'e' in getche function means it echoes the character that is typed.

(g) It is not possible to have formatted input/output in C.

(h) Every C program must have a main ( ) function.

(i) It is not possible to have nested 'if-else' statements in C.

(j) It is not possible to have switch statements nested within *while* or *for* loops.

3. Choose the correct option from the following questions: $1 \times 5 = 5$

(a) A 'C' variable cannot start with

(i) An alphabet

(ii) A number

(iii) A special symbol other than underscore

(iv) Both (ii) and (iii).

(b) What is right way to initialization array?

(i) int num [6] = {2, 4, 12, 5, 45, 5};

(ii) int n { } = {2, 4, 12, 5, 45, 5};

(iii) int n {6} = {2, 4, 12}

(iv) int n (6) = {2, 4, 12.5, 45, 5};

(c) 'Bitwise' operators can operate upon?

(i) Double and chars

(ii) Floats and doubles

(iii) Int and floats

(iv) Ints and chars.

(c) C supports as many as _____ relational operands.

(d) An expression that combines two or more relational expressions is termed as _____ expression.

(e) The _____ operator returns the number of bytes the operand occupies.

(f) A _____ consists of any number of consecutive character, enclosed in a double quotation marks.

(g) All character are represented internally as _____.

(h) An automatic variable does not retain its _____ once control is transferred out of its defining function.

(i) The data type double is actually double precision _____ type of data.

(j) In C 'while' is _____ word.

(k) #define statement call for simplest type of _____ substitution.

(l) The else portion of the 'if-else' statement is _____.

SECTION – II

(PART : B – DESCRIPTIVE)

(*Marks* : 50)

Answer ANY TWO questions from *each* UNIT

UNIT– I

5. What is 'typedef' in C? Explain its advantage with example. 2 + 4 = 6

6. Name and describe the basic data types in C. Explain. 6

7. Describe two different ways that floating–point constants can be written. What special rules apply in each case? 6

UNIT– II

8. Write a note on the 'for' loop using its syntax? Give example. 4 + 2 = 6

9. What is an operator? Describe several different types of operators that are included with the C language. 2 + 4 = 6

10. Explain the five arithmetic operators in C. Summarize the rules associated with their use. 3 + 3 = 6

(a) Find out the number of employees working in various departments in the OFFICE database [TOTAL command can be use].

(b) Modify the OFF_REP to display the serial number before the name of employee.

(c) Modify the OFF_REP file to display the following at the end of the report:

(i) The sum of the Basic Salary field

(ii) The Maximum Basic Salary

(d) Modify the OFF_REP report file to show the following at the end of the report:

(i) The average Basic Salary

(ii) The minimum Basic Salary

10. Write short note on ABS( ) function with example. 4

11. Mention the function of BETWEEN ( ) function and its use. 4

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HS/XI/V/CT/Paper-III/20

2020

DATABASE MANAGEMENT SYSTEM (Using Foxpro)

COMPUTER TECHNIQUE (Paper – III)

(Vocational Stream)

(Theory)

Full Marks : 100

Time : 3 hours

The figures in the margin indicate full marks for the questions

General Instructions :

(i) Write all the answers in the Answer Script

(ii) Attempt Part — A Objective Questions serially

(iii) Attempt all parts of a question together at one place

(PART : A — OBJECTIVE)

(*Marks* : 50)

1. Fill in the blanks from the list of **words**/**phrases** given below : $1 \times 10 = 10$

(a) ACCEPT creates a ——— type variable.

DESCRIPTIVE

(*Marks* : 50)

PART – A

(*Marks* : 30)

Answer *ANY THREE* questions from the following

5. *(a)* What is the function of 'SET STATUS ON' command. 2

(b) What are the data types available in Foxpro? Explain them with example. 8

6. *(a)* What is the function of SEEK command? Explain with example. 6

(b) What is indexing a database file? What are its importance? Explain. 4

7. *(a)* What is a Report in Foxpro? What are its features? Explain. 6

(b) What is a 'Quick Report' in Foxpro? 4

8. *(a)* What is 'Gather' and 'Scatter' commands? Explain. 6

(b) What is "??" command in Foxpro? Explain giving example. 4

2. State whether the following statements are *True* or *False* : $1 \times 10 = 10$

(a) Normally, the size of the SORT file is the same as the original database file. However it can be less in some case.

(b) Only one relation can be established out of a database file.

(c) B-CITY and B.CITY are equivalent.

(d) A single SET RELATION command can link only two files.

(e) USE SALES IN 5 open SALE. dbf in work area 5.

(f) Copy STRUCTURE TO NEW copies the structure of the current file and the .CDX files.

(g) JOIN creates a new database file by joining two or more database file.

(h) The SUM command sums up the specified numeric variables.

(i) Only numeric and character expression can be used with MIN ( ).

(j) If one enters COUNT after opening a database file, Foxpro displays the number of records in the database file.

(d) What happens if you redefine a field type from Numeric to Float?

(i) All value in the field are truncated to 4 decimal places

(ii) All values in the field are lost

(iii) Nothing changes

(iv) None of the above

(e) Can you enter duplicate values in a field with a unique index?

(i) Yes

(ii) Yes, but we get a warning message

(iii) No, any duplicate value is rejected

(iv) None of the above

(f) The command to modify a report format file is –

(i) Edit

(ii) Modify

(iii) Next

(iv) None of the above

(g) The _____ command clears all data from the screen

(i) Release

(ii) Clear

(iii) Restore

(iv) None of the above

(h) ROUND (189, 89,0) returns _____

(i) 190

(ii) 189

(iii) 278

(iv) None of the above

(i) CTOD ( ) is the reverse of the _____ function

(i) STAR ( )

(ii) DTOC ( )

(iii) String ( )

(iv) None of the above

3. Choose and write the correct option: $1 \times 10 = 10$

(a) Which file is used to write the different types of Foxpro program?

(i) Report File

(ii) Label File

(iii) Program

(iv) Index File

(b) What happens if you hold the shift key down the click on File in the main menu?

(i) The close option becomes close all

(ii) The current window stores

(iii) The menu undocks and can be moved

(iv) None of the above

(c) What does the command 3+8 do if you are on the first record of the Customer Table?

(i) Store 11 in the primary key of the current record

(ii) Moves to Rec. 11

(iii) Display the numeric value 11

(iv) None of the above

(j) For each LOCATE the program must use a corresponding _____.

(i) Case

(ii) ENDCASE

(iii) ENDDO

(iv) None of the above

4. Write short notes of the following in not more than three or four sentences each: (*Any Five*) $4 \times 5 = 20$

(a) Define a database

(b) The ZAP command

(c) WAI command

(d) THE STRUCTURE of a database

(e) THE LOCATE command

(f) What is a loop?

(g) The AND operator

(b) Foxpro provides the ——— command for sorting records stored in a database file.

(c) The field name can be up to ten characters long and must begin with a ———.

(d) The LIST command lists ——— records on screen.

(e) A database file must be in ——— before we can apply any command on it.

(f) While defining the structure for a database file, we need to assign a unique ——— for each field.

(g) The ——— command can be used to search for data in a database file.

(h) To add more record at the end of any database file use the command ———.

(i) The ——— command is used to exit from Foxpro to DOS.

(j) To define the page length for a report, select page layout from ——— menu.

Lists of Words/Phrases/Keywords:

Character	LOCATE	String	SEEK	Use
INDEX	SORT	Fieldno	Letter	All
APPEND	Quit	Report	Form	EXIT

PART – B

(*Marks* : 20)

Answer Question No. 10 and ANY ONE from the rest

9. Creat a Report file OFF_REP for the OFFICE database file as given in the following table–

LIST OF EMPLOYEES

PAGE : 1

Name of Employee	Department	Date of Joining	Basic Salary
John	Sales	12/02/15	14000
Christopher	Finance	04/03/13	15000
Radha	Finance	02/04/12	16400
Rahul	Purchase	06/05/15	14560
Rubel	Finance	19/06/16	13550
Joseph	Purchase	20/01/14	18000
Henry	Sales	02/04/14	19000
Prabhu	Purchase	04/06/11	20800
Nayak	Finance	06/03/12	16900

Based on the above table, write the commands to perform the following task: 4×4=16