Biyani's Think Tank

Concept based notes

Computer Fundamentals

BBA Part-I

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<u>Preface</u>

I am glad to present this book, especially designed to serve the needs of the students. The book has been written keeping in mind the general weakness in understanding the fundamental concepts of the topics. The book is self-explanatory and adopts the "Teach Yourself" style. It is based on question-answer pattern. The language of book is quite easy and understandable based on scientific approach.

Any further improvement in the contents of the book by making corrections, omission and inclusion is keen to be achieved based on suggestions from the readers for which the author shall be obliged.

I acknowledge special thanks to Mr. Rajeev Biyani, *Chairman* & Dr. Sanjay Biyani, *Director* (*Acad.*) Biyani Group of Colleges, who are the backbones and main concept provider and also have been constant source of motivation throughout this Endeavour. They played an active role in coordinating the various stages of this Endeavour and spearheaded the publishing work.

I look forward to receiving valuable suggestions from professors of various educational institutions, other faculty members and students for improvement of the quality of the book. The reader may feel free to send in their comments and suggestions to the under mentioned address.

Author

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Computer Fundamentals

Q.1 Write Short Keys for following Commands.

Ans.: Command Name   **Shortcut Keys**

Command Name	Shortcut Keys
All Caps	CTRL+SHIFT+A
Annotation	ALT+CTRL+M
App Maximize	ALT+F10
App Restore	ALT+F5
Apply Heading1	ALT+CTRL+1
Apply Heading2	ALT+CTRL+2
Apply Heading3	ALT+CTRL+3
Apply List Bullet	CTRL+SHIFT+L
Auto Format	ALT+CTRL+K
Auto Text	F3 or ALT+CTRL+V
Bold	CTRL+B or CTRL+SHIFT+B
Bookmark	CTRL+SHIFT+F5
Browse Next	CTRL+PAGE DOWN
Browse Previous	CTRL+PAGE UP
Browse Sel	ALT+CTRL+HOME
Cancel	ESC
Center Para	CTRL+E
Change Case	SHIFT+F3

Char Left	LEFT
Char Left Extend	SHIFT+LEFT
Char Right	RIGHT
Char Right Extend	SHIFT+RIGHT
Clear	DELETE
Close or Exit	ALT+F4
Close Pane	ALT+SHIFT+C
Column Break	CTRL+SHIFT+ENTER
Column Select	CTRL+SHIFT+F8
Copy	CTRL+C or CTRL+INSERT
Copy Format	CTRL+SHIFT+C
Copy Text	SHIFT+F2
Create Auto Text	ALT+F3
Customize Add Menu	ALT+CTRL+=
Customize Keyboard	ALT+CTRL+NUM +
Customize Remove Menu	ALT+CTRL+-
Cut	CTRL+X or SHIFT+DELETE
Date Field	ALT+SHIFT+D
Delete Back Word	CTRL+BACKSPACE
Delete Word	CTRL+DELETE
Dictionary	ALT+SHIFT+F7
Do Field Click	ALT+SHIFT+F9
Doc Close	CTRL+W or CTRL+F4
Doc Maximize	CTRL+F10
Doc Move	CTRL+F7
Doc Restore	CTRL+F5

Doc Size	CTRL+F8
Doc Split	ALT+CTRL+S
Double Underline	CTRL+SHIFT+D
End of Column	ALT+PAGE DOWN
End of Column	ALT+SHIFT+PAGE DOWN
End of Doc Extend	CTRL+SHIFT+END
End of Document	CTRL+END
End of Line	END
End of Line Extend	SHIFT+END
End of Row	ALT+END
End of Row	ALT+SHIFT+END
End of Window	ALT+CTRL+PAGE DOWN
End of Window Extend	ALT+CTRL+SHIFT+PAGE DOWN
Endnote Now	ALT+CTRL+D
Extend Selection	F8
Field Chars	CTRL+F9
Field Codes	ALT+F9
Find	CTRL+F
Font	CTRL+D or CTRL+SHIFT+F
Font Size Select	CTRL+SHIFT+P
Footnote Now	ALT+CTRL+F
Go Back	SHIFT+F5 or ALT+CTRL+Z
Go To	CTRL+G or F5
Grow Font	CTRL+SHIFT+.
Grow Font One Point	CTRL+]
Hanging Indent	CTRL+T
Header Footer Link	ALT+SHIFT+R

Help	F1
Hidden	CTRL+SHIFT+H
Hyperlink	CTRL+K
Indent	CTRL+M
Italic	CTRL+I or CTRL+SHIFT+I
Justify Para	CTRL+J
Left Para	CTRL+L
Line Down	DOWN
Line Down Extend	SHIFT+DOWN
Line Up	UP
Line Up Extend	SHIFT+UP
List Num Field	ALT+CTRL+L
Lock Fields	CTRL+3 or CTRL+F11
Macro	ALT+F8
Mail Merge Check	ALT+SHIFT+K
Mail Merge Edit Data Source	ALT+SHIFT+E
Mail Merge to Doc	ALT+SHIFT+N
Mail Merge to Printer	ALT+SHIFT+M
Mark Citation	ALT+SHIFT+I
Mark Index Entry	ALT+SHIFT+X
Mark Table of Contents Entry	ALT+SHIFT+O
Menu Mode	F10
Merge Field	ALT+SHIFT+F
Microsoft Script Editor	ALT+SHIFT+F11
Microsoft System Info	ALT+CTRL+F1
Move Text	F2

New	CTRL+N
Next Cell	TAB
Next Field	F11 or ALT+F1
Next Misspelling	ALT+F7
Next Object	ALT+DOWN
Next Window	CTRL+F6 or ALT+F6
Normal	ALT+CTRL+N
Normal Style	CTRL+SHIFT+N or
	ALT+SHIFT+CLEAR (NUM 5)
Open	CTRL+O or CTRL+F12 or
	ALT+CTRL+F2
Open or Close Up Para	CTRL+0
Other Pane	F6 or SHIFT+F6
Outline	ALT+CTRL+O
Outline Collapse	ALT+SHIFT+- or ALT+SHIFT+NUM -
Outline Demote	ALT+SHIFT+RIGHT
Outline Expand	ALT+SHIFT+=
Outline Expand	ALT+SHIFT+NUM +
Outline Move Down	ALT+SHIFT+DOWN
Outline Move Up	ALT+SHIFT+UP
Outline Promote	ALT+SHIFT+LEFT
Outline Show First Line	ALT+SHIFT+L
Overtype	INSERT
Page	ALT+CTRL+P
Page Break	CTRL+ENTER
Page Down	PAGE DOWN
Page Down Extend	SHIFT+PAGE DOWN

Page Field	ALT+SHIFT+P
Page Up	PAGE UP
Page Up Extend	SHIFT+PAGE UP
Para Down	CTRL+DOWN
Para Down Extend	CTRL+SHIFT+DOWN
Para Up	CTRL+UP
Para Up Extend	CTRL+SHIFT+UP
Paste	CTRL+V or SHIFT+INSERT
Paste Format	CTRL+SHIFT+V
Prev Cell	SHIFT+TAB
Prev Field	SHIFT+F11 or ALT+SHIFT+F1
Prev Object	ALT+UP
Prev Window	CTRL+SHIFT+F6 or ALT+SHIFT+F6
Print	CTRL+P or CTRL+SHIFT+F12
Print Preview	CTRL+F2 or ALT+CTRL+I
Proofing	F7
Redo	ALT+SHIFT+BACKSPACE
Redo or Repeat	CTRL+Y or F4 or ALT+ENTER
Repeat Find	SHIFT+F4 or ALT+CTRL+Y
Replace	CTRL+H
Reset Char	CTRL+SPACE or CTRL+SHIFT+Z
Reset Para	CTRL+Q
Revision Marks Toggle	CTRL+SHIFT+E
Right Para	CTRL+R
Save	CTRL+S or SHIFT+F12 or ALT+SHIFT+F2

Save As	F12
Select All	CTRL+A or CTRL+CLEAR (NUM 5) or CTRL+NUM 5
Select Table	ALT+CLEAR (NUM 5)
Show All	CTRL+SHIFT+8
Show All Headings	ALT+SHIFT+A
Show Heading1	ALT+SHIFT+1
Show Heading2	ALT+SHIFT+2
Show Heading3	ALT+SHIFT+3
Show Heading4	ALT+SHIFT+4
Show Heading5	ALT+SHIFT+5
Show Heading6	ALT+SHIFT+6
Show Heading7	ALT+SHIFT+7
Show Heading8	ALT+SHIFT+8
Show Heading9	ALT+SHIFT+9
Shrink Font	CTRL+SHIFT+,
Shrink Font One Point	CTRL+[
Small Caps	CTRL+SHIFT+K
Space Para1	CTRL+1
Space Para15	CTRL+5
Space Para2	CTRL+2
Spike	CTRL+SHIFT+F3 or CTRL+F3
Start of Column	ALT+PAGE UP
Start of Column	ALT+SHIFT+PAGE UP
Start of Doc Extend	CTRL+SHIFT+HOME
Start of Document	CTRL+HOME
Start of Line	HOME

Start of Line Extend	SHIFT+HOME
Start of Row	ALT+HOME
Start of Row	ALT+SHIFT+HOME
Start of Window	ALT+CTRL+PAGE UP
Start of Window Extend	ALT+CTRL+SHIFT+PAGE UP
Style	CTRL+SHIFT+S
Subscript	CTRL+=
Superscript	CTRL+SHIFT+=
Symbol Font	CTRL+SHIFT+Q
Thesaurus	SHIFT+F7
Time Field	ALT+SHIFT+T
Toggle Field Display	SHIFT+F9
Toggle Master Subdocs	CTRL+\
Tool	SHIFT+F1
Un Hang	CTRL+SHIFT+T
Un Indent	CTRL+SHIFT+M
Underline	CTRL+U or CTRL+SHIFT+U
Undo	CTRL+Z or ALT+BACKSPACE
Unlink Fields	CTRL+6 or CTRL+SHIFT+F9
Unlock Fields	CTRL+4 or CTRL+SHIFT+F11
Update Auto Format	ALT+CTRL+U
Update Fields	F9 or ALT+SHIFT+U
Update Source	CTRL+SHIFT+F7
VBCode	ALT+F11
Web Go Back	ALT+LEFT
Web Go Forward	ALT+RIGHT

Word Left	CTRL+LEFT
Word Left Extend	CTRL+SHIFT+LEFT
Word Right	CTRL+RIGHT
Word Right Extend	CTRL+SHIFT+RIGHT
Word Underline	CTRL+SHIFT+W

MS Excel

To use one of these combinations Hold the Ctrl or Alt key down and strike the letter key

Ctrl+N **New** - Open a new workbook quickly.

Ctrl+O **Open -** Opens a previously saved document.

Ctrl+W **Close** - Closes the active window, but does not Exit Excel.

Ctrl+S **Save -** Saves the active document with its current file name, location and format.

Ctrl+P **Print** - Prints the active file, also gives the opportunity to change print options.

Alt+F4 **Exit** - Closes Microsoft Excel.

Ctrl+Z **Undo** - Undo the last action. This selection can be repeated several times.

Ctrl+Y **Redo** - After an action has been undone, it can be

reinstated in the document.

Ctrl+X	**Cut** - Removes the selection from the active document and places it on the clipboard.
Ctrl+C	**Copy** - Copies the selection to the clipboard.
Ctrl+V	**Paste** - Inserts the contents of the clipboard at the insertion point (cursor) or whatever is selected.
Ctrl+A	Selects all on the active worksheet.
Ctrl+F	**Find** - Searches for specified text in the active document.
Ctrl+B	**Bold** - Formats selected text; make text bold, or remove bold formatting.
Ctrl+I	**Italic** - Formats selected text; make text italic or remove italic.
Ctrl+U	**Underline** - Formats selected text; make text underlined or remove underline.

To use any of these combinations hold down the first key(s) and tap the last key one time.

Release the held keys when the action is completed.

Ctrl + Page Down	Select the next sheet in the workbook.

Tab	Complete a cell entry and move to the right in the selection.
Ctrl + F6	Move to the next workbook or window.
Ctrl + Tab	Move to the next workbook or window.
Ctrl + ◄	In print preview, move to the first page when zoomed out.
Ctrl + ↑	In print preview, move to the first page when zoomed out.
Shift + F11	Insert a new worksheet.
Alt+F1	Create a chart that uses the current range.
F11	Create a chart that uses the current range.
Ctrl + K	Insert a hyperlink.
Enter	In a cell with a hyperlink, this activates the hyperlink.
Ctrl + Shift + %	Apply the percentage format.
Ctrl + 9	Hide rows.
Ctrl + Shift + (	un hide rows.
Shift+Enter	Complete a cell entry and move up in the selection.
Ctrl + Page Up	Select the previous sheet in the workbook.
Shift + Tab	Complete a cell entry and move to the left in the selection.
Alt + Enter	Start a new line in the same cell.
=	Start a formula.
Ctrl + ►	In print preview, move to the last page when zoomed out.
Shift + Enter	Complete a cell entry and move up in the selection.
Alt + Shift + F1	Insert a new worksheet.
Shift + Spacebar	Select the entire row.

Ctrl + :	Enter the time.
Ctrl + D	Fill down.
Ctrl + Shift + &	Apply the outline border.
Ctrl + Shift + $	Apply the currency format.
Ctrl + 0 (zero)	Hide columns.
Ctrl + Shift +)	un hide columns.
Ctrl + Shift + F3	Create names from row and column labels.
Ctrl + ~	Displays all formulas in a worksheet, repeat to hide.
Ctrl + Shift + F6	Move to the previous workbook or window.
Ctrl + Shift + Tab	Move to the previous workbook or window.
Enter	Complete a cell entry and move down in the selection.
Esc	Cancel a cell entry.
Ctrl +▼	In print preview, move to the last page when zoomed out.
Tab	Move between unlocked cells on a protected worksheet.
Ctrl+Shift+F12	Prints the active file, also gives the opportunity to change print options.
Ctrl + Spacebar	Select the entire column.
Ctrl + ;	Enter the date.
Ctrl + R	Fill to the right.
Ctrl + Shift + _	Remove outline borders.
Ctrl + Shift + *	Select the current region around the active cell.
Alt + =	Insert the Auto Sum formula.

| Ctrl+1 | Display the **Format Cells** dialog box. |
| Ctrl + 7 | Show, or hide, the Standard toolbar. |

Q.2   Write Keywords of C Language.

Ans.:

auto	break	case	char	const	continue	default	do
double	else	enum	extern	float	for	goto	if
int	long	register	return	short	signed	sizeof	static
struct	switch	typedef	union	unsigned	void	volatile	while

Q.3   Define different types of Operators.

Ans.: An operator is a symbol which helps the user to command the computer to do a certain mathematical or logical manipulations. Operators are used in C language program to operate on data and variables. C has a rich set of operators which can be classified as

(1)   Arithmetic Operators
(2)   Relational Operators
(3)   Logical Operators
(4)   Assignment Operators
(5)   Increments and Decrement Operators
(6)   Conditional Operators
(7)   Bitwise Operators
(8)   Special Operators

(1)   Arithmetic Operators : All the basic arithmetic operations can be carried out in C. All the operators have almost the same meaning as in other languages. Both unary and binary operations are available in C language. Unary operations operate on a singe operand, therefore the number 5 when operated by unary – will have the value –5.

Arithmetic Operators	
Operator	**Meaning**
+	Addition or Unary Plus
–	Subtraction or Unary Minus
*	Multiplication
/	Division
%	Modulus Operator

Examples of arithmetic operators are :

x + y

x - y

-x + y

*a * b + c*

*-a * b*

etc.,

here a, b, c, x, y are known as operands. The modulus operator is a special operator in C language which evaluates the remainder of the operands after division.

Example :

.

#include //include header file stdio.h

void main() //tell the compiler the start of the program

{

int numb1, num2, sum, sub, mul, div, mod; //declaration of variables

scanf ("%d %d", &num1, &num2); //inputs the operands

sum = num1+num2; //addition of numbers and storing in sum.

```
printf("\n Thu sum is = %d", sum); //display the output
sub = num1-num2; //subtraction of numbers and storing in sub.
printf("\n Thu difference is = %d", sub); //display the output
mul = num1*num2; //multiplication of numbers and storing in mul.
printf("\n Thu product is = %d", mul); //display the output
div = num1/num2; //division of numbers and storing in div.
printf("\n Thu division is = %d", div); //display the output
mod = num1%num2; //modulus of numbers and storing in mod.
printf("\n Thu modulus is = %d", mod); //display the output
}
.
```

Integer Arithmetic : When an arithmetic operation is performed on two whole numbers or integers than such an operation is called as integer arithmetic. It always gives an integer as the result. Let $x = 27$ and $y = 5$ be 2 integer numbers. Then the integer operation leads to the following results :

$x + y = 32$

$x - y = 22$

$x * y = 115$

$x \% y = 2$

$x / y = 5$

In integer division the fractional part is truncated.

Floating Point Arithmetic : When an arithmetic operation is preformed on two real numbers or fraction numbers such an operation is called floating point arithmetic. The floating point results can be truncated according to the properties requirement. The remainder operator is not applicable for floating point arithmetic operands.

Let $x = 14.0$ and $y = 4.0$ then

$x + y = 18.0$

$x - y = 10.0$

$x * y = 56.0$

$x / y = 3.50$

Mixed mode arithmetic : When one of the operand is real and other is an integer and if the arithmetic operation is carried out on these 2 operands then it is called as mixed mode arithmetic. If any one operand is of real type then the result will always be real thus $15/10.0 = 1.5$.

(2) **Relational Operators :** Often it is required to compare the relationship between operands and bring out a decision and program accordingly. This is when the relational operator come into picture. C supports the following relational operators.

Relational Operators	
Operator	**Meaning**
<	is less than
<=	is less than or equal to
>	is greater than
>=	is greater than or equal to
==	is equal to
!=	is not equal to

It is required to compare the marks of 2 students, salary of 2 persons, we can ompare them using relational operators.

A simple relational expression contains only one relational operator and takes the following form :

exp1 relational operator exp2

Where exp1 and exp2 are expressions, which may be simple constants, variables or combination of them. Given below is a list of examples of relational expressions and evaluated values.

6.5 <= 25 TRUE

-65 > 0 FALSE

10 < 7 + 5 TRUE

Relational expressions are used in decision making statements of C language such as if, while and for statements to decide the course of action of a running program.

(3)   **Logical Operators :** C has the following logical operators, they compare or evaluate logical and relational expressions.

Logical Operators	
Operator	**Meaning**
&&	**Logical AND**
||	Logical OR
!	Logical NOT

Logical AND (&&) : This operator is used to evaluate 2 conditions or expressions with relational operators simultaneously. If both the expressions to the left and to the right of the logical operator is true then the whole compound expression is true.

Example :

a > b && x = = 10

The expression to the left is a > b and that on the right is x == 10 the whole expression is true only if both expressions are true i.e., if a is greater than b and x is equal to 10.

Logical OR (||) : The logical OR is used to combine 2 expressions or the condition evaluates to true if any one of the 2 expressions is true.

Example :

$$a < m \ || \ a < n$$

The expression evaluates to true if any one of them is true or if both of them are true. It evaluates to true if a is less than either m or n and when a is less than both m and n.

Logical NOT (!) : The logical not operator takes single expression and evaluates to true if the expression is false and evaluates to false if the expression is true. In other words it just reverses the value of the expression.

For example :

! (x >= y)

The NOT expression evaluates to true only if the value of x is neither greater than or equal to y.

(4)   Assignment Operators : The Assignment Operator evaluates an expression on the right of the expression and substitutes it to the value or variable on the left of the expression.

Example :

x = a + b

Here the value of a+b is evaluated and substituted to the variable x.

In addition, C has a set of shorthand assignment operators of the form.

var oper = exp;

Here var is a variable, exp is an expression and oper is a C binary arithmetic operator. The operator oper = is known as shorthand assignment operator.

Example :

x + = 1 is same as x = x + 1

The commonly used shorthand assignment operators are as follows:

Shorthand Assignment Operators	
Statement with simple assignment operator	**Statement with shorthand operator**
a = a + 1	**a += 1**
a = a – 1	a -= 1
a = a * (n+1)	a *= (n+1)
a = a / (n+1)	a /= (n+1)
a = a % b	a %= b

Example for using shorthand assignment operator :

.

```
#define N 100 //creates a variable N with constant value 100
#define A 2 //creates a variable A with constant value 2
main() //start of the program
{
int a; //variable a declaration
a = A; //assigns value 2 to a
while (a < N) //while value of a is less than N
{ //evaluate or do the following
printf("%d \n",a); //print the current value of a
a *= a; //shorthand form of a = a * a
} //end of the loop
} //end of the program
```

.

Using ifs to decide on a discount

```
#include <stdio.h>
void main() {
  const double price = 3.50;          /* price*/
  int quantity = 0;
  printf("Enter the number that you want to buy:");    /* Prompt message */
  scanf(" %d", &quantity);                    /* Read the input */
  /* Test for order quantity qualifying for a discount */
  if( quantity>20)                    /* 5% discount */
      printf("The price for %d is $%.2f\n", quantity, quantity * price * 0.95);
  else
                            /* No discount */
    printf("The price for %d is $%.2f\n", quantity, quantity * price); }
include <stdio.h>
void main()

{
  int number = 0;
  printf(" \nEnter an integer between 1 and 10: ");
  scanf("%d",&number);
  if (number > 7)
    printf("You entered %d which is greater than 7\n", number);
  if (number < 3)
    printf("You entered %d which is less than 3\n", number);
}
```

□ □ □

CHAPTER-2

Some Important Objective Questions

Q.1. **What does SD RAM Mean?**

(a) Synchronous Dynamic RAM

(b) Synchronous Digital RAM

(c) Single Digit RAM

(d) None of the above   **( )**

Q.2. **MMX technique is used in :**

(a) Network

(b) Processor

(c) Memory

(d) None of the above   **( )**

Q.3. **The full form of AMD processor is :**

(a) Advanced Micro Device

(b) Arithmetic Micro Device

(c) Advanced Memory Device

(d) None of the above   **( )**

Q.4. **How many sectors are there in 5.25 inch floppy?**

(a) 8

(b) 9

(c) 10

(d) 12   **( )**

Q.5. **Time that head would take to reach on track is :**

(a) Seak Time

(b) Search Time

(c) Both of them   (d)   **( )**

Q.6.   Laser printer is :

(a) Non-impact   (b) Impact

(c) Both of them   (d) None of them   **( )**

Q.7.   SQL is a :

(a) High level language   (b) IV generation language

(c) Machine Language   (d) Assembly language   **( )**

Q.8.   NIC is a :

(a) Software   (b) Hardware

(c) Electronic Device   (d) (b) & (c) both   **( )**

Q.9.   Full form of DCE :

(a) Data Communication Equipment   (b) Data Carrier Equipment

(c) Data Connection Equipment   (d) None of the above   **( )**

Q.10. Config.sys is a :

(a) ASCII file   (b) Image File

(c) Binary file   (d) None of the above   **( )**

Q.11. C:\> denotes :

(a) Sub directory   (b) Root directory

(c) Main File   (d) Floppy disc drive   **( )**

Q.12. RTF means :

(a) Real time Format   (b) Rich time Format

(c) Rich Text Format   (d) Real Text Format   **( )**

Q.13. Maximum size of a file in a notepad can be :

(a) 128K   (b) 64K

(C) 64M   (d) 32K   **( )**

Q.14. MS-Excel is used in :

(a) Letter writing   (b) Chart making

(c) Mail   (d) All of the above   **( )**

Q.15. What will be the output of?

Main( )

{

       printf( );

}

(a) 0   (b) 1

(c) Error   (d) None of the above.   **( )**

Q.16. What is the output?

Main( )

{

int i;

i=5/2;

printf("%d",i);

}

(a) 2.5   (b) 0

(c) 2   (d) None of the above   **( )**

Q.17. **The protocol that is used in internet :**

(a) TCP/IP   (b) CSMA

(c) X-25   (d) None of the above   **( )**

Q.18. **Character size in 'C' language is :**

(a) 2 Byte   (b) 1 Byte

(c) 4 Byte   (d) 8 Byte   **( )**

Q.19. **scanf() function is specified in this header file :**

(a) stdio.h   (b) conio.h

(c) math.h   (d) ctype.h   **( )**

Q.20. **To access a data member via structure variable which operator is to be used :**

(a) Dot operator   (b) Arrow operator

(c) Addition operator   (d) None of the above   **( )**

Q.21. **CD-Rom is a :**

(a) Random Access Memory   (b) Volatile Memory

(c) Optical Fiber   (d) None   **( )**

Q.22. **A Program, which infects a disc, is called :**

(a) Virus   (b) Antidot

(c) Vaccine   (d) None   **( )**

Q.23. **Bandwidth is maximum along the following communication channel :**

(a) Twisted Pair   (b) Opticla fiber

(c) Co-axial Cable   (d) Infrared   **( )**

Q.24. One kilobyte means :

(a) 2^2 Bytes   (b) 2^{10}

(c) 2^{100} Bytes   (d) None   **( )**

Q.25. A Floppy disk contains :

(a) Tracks   (b) Sectors

(c) Both Sectors & Tracks   (d) None   **( )**

Q.26. An input device that reads printed text employing optical character pattern :

(a) Magnetic disk   (b) Mouse

(c) Scanner   (d) None   **( )**

Q.27. A temporary storage area attached to CPU is known as :

(a) chip   (b) Buffer

(c) register   (d) None   **( )**

Q.28. A CPU 's processing power is measured in :

(a) IPS   (b) CIPS

(c) MIPS   (d) Nano Seconds   **( )**

Q.29. CPU chip is made of :

(a) Carbon   (b) Copper

(c) Silica   (d) None   **( )**

Q.30. RAM chip was invented by :

(a) Intel   (b) Motorola

(c) IBM   (d) None   **( )**

□ □ □

Multiple Choice Answers

Q.1. **C.D. – R.O.M. is a :**

(a) Random Access Memory (b) Volatile memory

(c) Optical memory (d) None of the above **(c)**

Q.2. **Laser Printer uses :**

(a) Raster Scan (b) Camera Lanes

(c) Heat Sensitive paper (d) None of the above **(a)**

Q.3. **Bandwidth is maximum along the following communication channel.**

(a) Twisted pais (b) Optical fibre

(c) Co-axial cable (d) Infrared **(b)**

Q.4. **EBCDIC code developed by :**

(a) ANSI (b) IBM

(c) SILICA (d) Plastic **(b)**

Q.5. **CPU chip is made of :**

(a) Carbon (b) Copper

(c) flexible stack (d) None of the above **(c)**

Q.6. **Winchester disk means :**

(a) Disk stack   (b) Removable disk

(c) Flexible stack   (d) None of the above   **(a)**

Q.7. **A CPU's processing power is measured in :**

(a) IPS   (b) CIPS

(c) MIPS   (d) KIPS   **(c)**

Q.8. **One Kilobyte means :**

(a) 2^2 Bytes   (b) 2^{10} Bytes

(c) 2^{100} Bytes   (d) None of the above   **(b)**

Q.9. **A billionth of a second is defined as :**

(a) Mill Second   (b) Micro second

(c) Nano second   (d) Pico second   **(c)**

Q.10. **A computer system that combines text, graphics, voice and video is known as :**

(a) Multi user system   (b) Multitasking system

(c) Multimedia   (d) None of the above   **(c)**

Q.11. **The range of frequencies available for data transmission is known as :**

(a) PCI   (b) Multitasking system

(c) Simulation   (d) None of the above   **(b)**

Q.12. **WAN Hardware does not include :**

(a) Multiplexer   (b) Router

(c) Bridge   (d) None of these   **(c)**

Q.13. RAM chip was invented by :

(a) Intel   (b) Motorola

(c) IBM   (d) None of these   **(c)**

Q.14. What is diameter of CD-ROM :

(a) 12 Cm   (b) 12 inch

(c) 12 mm   (d) None of the above   **(a)**

Q.15. Internet addresses are assigned by :

(a) TETF   (b) IEEE

(c) INTERNIC   (d) None of the above   **(c)**

Q.16. AMD's full name is :

(a) Automated Micro Device   (b) Advanced Micro Device

(c) Arithmetic Multiple Device   (d) None of the above   **(b)**

Q.17. Cyrix makes :

(a) Monitor   (b) Microprocessor

(c) Printer   (d) None of the above   **(b)**

Q.18. Hertz Means :

(a) One cycle per Minute   (b) One cycle per second

(c) One cycle per milli second   (d) One cycle per hour   **(b)**

Q.19. PCI was developed by :

(a) Motorola   (b) ASCII

(c) Intel   (d) None of the above   **(c)**

Q.20. **The function of NIC is :**

(a) Link computer with memory

(b) Link computer with network

(c) Link computer with printer

(d) None of the above   **(b)**

Q.21. **Laser printer uses :**

(a) PDL

(b) HTML

(c) COBOL

(d) None of the above   **(a)**

Q.22. **Master Boat Record is also known as :**

(a) Partition sector

(b) Master Partition table

(c) Both a & b

(d) None of the above   **(c)**

Q.23. **Printer resolutions are measured in :**

(a) Bits per inch

(b) Dots per inch.

(c) Dots per centimeter

(d) None of the above   **(b)**

Q.24. **Photo sensitive chip used in a video camera is known :**

(a) BCD

(b) CCD

(c) FDD

(d) None of the above   **(d)**

Q.25. _____ **is internet address.**

(a) HTML

(b) URL

(c) HTTP

(d) None of the above   **(b)**

Q.26 **PTM is a _____**

(a) Utility software

(b) System software

(c) Application software

(d) None of the above   **(c)**

Q.27. Which is pre cursor of the internet?

(a) Gopher   (b) ARPANET

(c) IETF   (d) None of the above   **(b)**

Q.28. Gateway works on _____level of OSI model.

(a) 2   (b) 3

(c) 7   (d) None of the above   **(c)**

Q.29. _____ provides port number.

(a) IETF   (b) IANA

(c) MIMC   (d) None of the above   **(b)**

Q.30. Storage capacity of floppy is maximum in __

(a) DSSD   (b) DSDD

(c) SSSD   (d) All the above   **(b)**

Q.31. The ISA is a _____ architecture.

(a) 8 bit Data bus   (b) 16 bit data bus

(c) 32 bit data bus   (d) 64 bit data bus   **(b)**

Q.32. The serial mouse has a _____

(a) 9-pin connector   (b) 16-pin connector

(c) 25-pin connector   (d) 32 pin connector   **(a)**

Q.33. Server is also known as ___

(a) Front end   (b) Back end

(c) Connecting end   (d) None of the above   **(b)**

Q.34. POP is _____

(a) Mail   (b) Mail server

(c) Mail protocol   (d) None of the above   **(c)**

Q.35. Inventor of WWW is ___

(a) Bill Gates   (b) Robert Tannenbonm

(c) Tim Berner Lee   (d) None of the above   **(c)**

Q.36. ISA has____ number of address line.

(a) 18   (b) 24

(c) 16   (d) 20   **(b)**

Q.37. The 5.25 inch floppy can _____ MB data.

(a) 2.8 MB   (b) 1.2 MB Data

(c) 1.4 M.B   (d) None of the above   **(b)**

Q.38. Which one is not a Database Management system.

(a) Access   (b) Fox Pro

(c) Netscape   (d) Oracle   **(c)**

Q.39. The size of a font is measured in points;. One point equals ____inch in height.

(a) 0.2   (b) 0.1

(c) 0.05   (d)   **(d)**

Q.40 The _____was created in 1989 at the European particle.   Physics aboratoryin Geneva, Switzerland.

(a) Arpanet   (b) WWW

(c) Firewalls   (d) folders   **(b)**

Q.41. The operating system uses _____to help the CPU coordinate processes.

(a) Webs   (b) Interrupt Requests (IRQ)

I(c) Firewalls   (d) Folders   **(b)**

Q.42. Refresh rate of monitors is measured in :

(a) Hertz   (b) measured in

(c) Megavolt   (d) Megahorse   **(a)**

Q.43. PCI is a type of ___

(a) Plug ;and Play   (b) Browser

(c) Bus   (d) Software   **(c)**

Q.44. PPP stands for :

(a) Print to print protocol   (b) Point to point Protocol

(c) Print to Print protocol   (d) none of the above   **(c)**

Q.45 Cache memory is :

(a) Temporary and costly   (b) Point to point protocol

(c) High speed memory   (d) None of the above   **(c)**

Q.46. A GUI is a :

(a) Hardware   (b) Language interpreter

(c) Software interface   (d) An operating system   **(c)**

Q.47. Which of the following is not a procedural language.

(a) PASCAL

(b) Basic

(c) Visual Basic

(d) None of the above   **( )**

Q.48. A _____ works like an upside-down mouse.

(a) Joystick

(b) TGrackpad

(c) Trackpoint

(d) Trackball   **(d)**

Q.49. On a CD-ROM data is stored in the form of ___ & ___

(a) Lands and pits

(b) Dots and Dash

(c) High and Low

(d) None of these   **(a)**

Q.50. TCPVIP is :

(a) Software

(b) Hardware

(c) Network

(d) None of the above   **(a)**

Q.51. Computer virus is a ____

(a) Hardware

(b) Software

(c) Both a & b

(d) None of the above   **(b)**

Q.52. Three types of memory chips are RAM, ROM and

(a) EISA

(b) RISC

(c) CD-ROME

(d) CMOS   **(d)**

Q.53. Which one is not a multitasking operating system :

(a) MS-DOS

(b) Windows

(c) LINOX

(d) UNIX   **(a)**

Q.54 _____provides field for entering or comment of any length.

(a) Counter field   (b) Logical field

(c) Memo field   (d) Date field   **(c)**

Q.55. The scroll lock key is a ____key.

(a) Function   (b) Numeric

(c) Toggle   (d) Cursor control   **(c)**

Q.56. A PCM CIA hard drive uses _____

(a) Type I slot   (b) Type II slot

(c) Type III slot   (d) Type IV slot   **(c)**

Q.57. Tape is accessed :

(a) Randomly   (b) Sequentially

(c) Direct   (d) None of the above   **(b)**

Q.58. A devise that receives analog signal and converts them into digital data is known as :

(a) Modulator   (b) Demodulator

(c) Multiplexer   (d) None of the above   **(b)**

Q.59. Master Boot Record is also known as :

(a) Partition Sector   (b) Master Partition table

(c) Both   (d) None of the above   **(c)**

Q.60. Electronic instructions that tells the hardware what to do are known as :

(a) Modem   (b) Electronic pen

(c) Program   (d) Micro computer   **( )**

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Assembly Language

Q.1 What are the advantage & disadvantage of Assembly language?

Q.2 What do you mean by topology? Write the names of different topologies.

Q.3 What is the difference between LAN & WAN?

Q.4 Write the names of five internal & external commands of DOS.

Q.5 Write the difference between GUI & CUI.

Q.6 What is the difference between Save & Save As?

Q.7 Write the advantage of Mail Merge.

Q.8 What is MODEM? How does it work?

Q.9 What do you mean by storage classes in C? Write the types of storage classes(only names).

Q.10 What is Structures in C?

Q.11 What is Macro in MS-Word? What are its features? How can we insert Macro in a document?

Q.12 What are the different types of charts in MS-Excel?

Q.13 How does search engine work?

Q.14 What is a database? Write the advantages of database.

Q.15 What is algorithm? Write the characteristics of algorithm.

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Operating System - DOS

Q.1. **What is Operating System? Explain its function.**

Ans.: An operating system provides a uses interface, through which a user interacts with a computer. If acts as a resource manager for the computer, and allocates resources to the user.

Q.2. **Describe the commands in DOS? Name the commands with their syntax.**

Ans.: DOS commands are small programs, which are made to perform a particular job. Every DOS command performs different task. It is not possible to work on the computer without these commands. There are two types of DOS commands –

(1)   Internal Commands

(2)   External Commands

Internal Commands : These commands enter into the computer memory during computer booting. These commands are not in the form of any file; so neither they can be viewed nor can be edited or detected. For example : MD, CD, TIME, DATE, COPY, COPR CON, TYPE ETC.

External Commands : These commands are stored in the computer list in the form of files. These Commands can be viewed, copied, changed or deleted. For example : FORMAT, COPY, PRINT, SYS, EDIT, TREE, SORT, PROMPT etc.

Important Internal DOS Commands :

(i)   **MD (Make Directory) :** We use this commands to make a new directory or sub directory.

> **Syntax :** e:1>MD DIRECTORY NAME ↔
>
> **Example :** MD STUDENT ↔

(ii)   **CD (Change Directory) :** This commands is used to move from one directory to another.

> **Syntax :** C:\> CD Directory name ↔
>
> **Example : >**   CD Student ↔
>
> **Exit to Directory :**
>
> **CD... -** The command move the subdirectory to parent directory.
>
> **CD\ -**The command is used to move directly to the root directory.

(iii)   **RD (Remove Directory) :** If a Directory which was earlier is ;not required than such directory can be removed by using **syntax :**

> C:\> RD Directory name ↔
>
> **Example : >**RD student ↔

Note : (a)   The directory, which is to be removed, must be empty.

(b)   The directory in which one is working cannot be removed. One has to close the directory and come to the parent directory to remove that directory.

(iv)   **Copy Con :** Its command is used to create a file. The name of the file, which is to be created, is written after the copy Con leaving one space in between **syntax :**

> Copy Con file name ↔
>
> -------------------------------
>
> -------------------------------

To created a file, the following steps are :

(i)   Type Copy Con Monu and press Enter.

(ii)   Type whatever is to be typed in the file.

(iii) Press F6 function key or CTRL + Z keys '∆Z' will be displayed on the screen, which indicates that the file is complete.

(iv) Press Enter and after that the DOS will save the file and will display the message '1 File(s) copied.

(v) **Del** : This command is used to erase the files which are no longer required.

Syntax : C:\ > Del < File name >

Example : >Del Monu ↔

(vi) **Type :** This command is used to view the contents of text file.

Syntax : Type <file name>

(vii) **Copy :** This command is used to copy of file from one place to another place. A copy of file is another file with the same contents.

Syntax : C:1> copy <source> < destination path>

(viii) **Ren :** This command is used to rename the file. In REN command two parameters are used. The first is the file we want to rename and the second is the new name for the file.

Syntax : > Ren <old file name> <New file name>

(ix) **DIR :** This command is used to display of directory and files.

Syntax : C:\ > DIR ↔

(x) **CLS :** This command is used to clear the screen.

Syntax : Cl\: CLS ↔

Q.3. Differentiate between File and Directory.

Ans.: All the data on our hard drive consists of files and folders.

The basic difference between the two is that files store data, while directory store files and other sub directory. The Directory, often referred to as directories, are used to organize files on our computer. The directory themselves take up virtually no space on the hard drive. Files, on the other hand, can range from few bytes to several gigabytes.

Q.4.   What is 'Wild Card'? Explain.

Ans.: Wild cards are symbols that let your reference groups of related files. DOS wild cards are the "*" and "?".

The asterisk (*) – The asterisk takes the value of any number of characters.

The Question Mark (?) – The question mark matches any single character.

Practical Questions :

I.   Make Directories in the following structure using DOS commands :

                        INDIA

Delhi   Rajasthan   Punjab

Jaipur   Sikar   Chandigarh   Patiala

a)   Make a file named Tourist and type names of any three tourist place in Jaipur directory.

b)   Make a file named Tourist I and type names of any one tourist place in Chandigarh directory.

c)   Make file named RedFort.LTxt and Chandnichowk.Txt. in Delhi directory (Type same text in these files).

d)   Copy Redfort Txt in Sikar directory.

e)   Rename Sikar directory as New Delhi.

f)   Remove Patiala directory.

g)   Delete file name Redfort.Txt.

□ □ □

Operating System – Windows 98

Q.1. **Differentiate between DOS and Windows.**

Ans.:

S.No.	DOS	Windows
1.	Pictures cannot be displayed.	It provides a paid and click environment whose clicking the item can perform a job.
2.	Single task can be performed.	Multi-tasking operating system at a time.
3.	Internet cannot be assessed.	It comes with internet explores for assessing internet.

Q.2. **What is Screen Saver? How is it useful? Explain the process of setting Wallpaper.**

Ans.: If any picture or text is left on the computer idle for a long time, the picture tube of the monitor can get damaged. Therefore, to protect the picture tube screen saver is set. Screensaver is composed of moving pictures, text or sound. This is automatically invoked when the computer remains idle for a specified period of time.

Setting a Wallpaper :

- Right click on the desktop.

- Go to properties.
- Click on Desktop option.
- Select the required file.
- Apply.
- OK.

Q.3. **What is 'Taskbar'? Describe how to use and configure the Taskbar and its Toolbar.**

Ans.: The long bar at the bottom of the desk top screen of the computer is called task bar. On the extreme left start button is there. On clicking the required option required programme can be run. And on the extreme right time is displayed. Name of the programme which is running currently is displayed on the task bar on clicking the name; we can minimize and restore the desired programme.

By selecting the taskbar and start menu option, on setting option of start menu, configuration of task bar and its tool can be changed.

Q.4. **Describe the process of Printer Installation.**

Ans.: The following process has to be followed to install printer :

1) Open my computer.

2) Double click on the printer icon.

3) Double click on the add printer in printers windows.

4) Click on the name of the model of the printer in the list of printers.

5) Select the name of the manufacturer in the list of manufacturers and click on it.

6) Click on the name of the model of the printer in the list of printers.

7) Press the next button and follow the given instructions.

8) In the end the printer will get installed and the icon of the new printer will appear on the printer window.

Q.5. **Explain the process of installation of Windows 98.**

Ans.: The following process of the installation of the windows 98 :

- CPU 4.86

- RAM – 8 MB (Primary Memory)

- H.O.D – 540 MB (Secondary Memory)

- Mono Monitor

- Key board

- Mouse

Installation Steps :

(1) Place is a windows installation CD in the CD drive.

(2) There is a windows directory there in the CD type window 98 in DOS prompt and prices extension.

(3) The File that initiates the installation is called Setup.exe type setup in DOS prompt and press Enter.

(4) Follow the instructions displayed on the screen. To continue ;the set up process, click next windows 98 operating system gets installed in the computer by following the instructions of the setup.

Practical Question :

I. Open point brush using 'RUN, PROGRAM' option and picture of 'computer' by using pencil and fill colors. Create a folder, D:\Your name\my picture and save the file as 'Computer.jpg" and also set it as background of your computer.

II. Use the control panel to as :

a) Change mouse setting for left handed person.

b) Change the setting of the currency to $.

c) Change the date and time format to other than at present.

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Word Process Software – MS Word

Q.1. **Explain difference between 'Cut-Paste' and 'Copy-Paste'.**

Ans.: **Cut :** Word can be moved from one place to another by using their option.

- The selected text can be cut by edit menu or cut icon from the standard toolbar is clicked to cut the text.

- The selected text can be cut by pressing the Ctrl+X key.

The text which is cut gets removed from the text area but gets stored in the temporary memory of the text clipboard. This text can be pasted wherever required.

Paste : The text which is stored in the temporary memory of the text clipboard due to cut or copy operation can be pasted back to the desired position by placing the cursor at the position.

Copy : If any text is to be used at many places in the document then this command is used. By selecting the copy option from the edit menu or clicking the copy icon from the standard tool bar or pressing Ctrl+C keys.

Paste : This can be pasted wherever required. By selecting the paste option from the edit menu or clicking the paste icon from the standard tool bar or pressing Ctrl+V keys.

Q.2. **How the 'Save' command is different from 'Save As' command?**

Ans.: Saving the document is necessary to save the document after making the changes. Three methods are used to save a document.

a) Select save option from the file menu or

b) Click save icon on the standard toolbar or

c) Press Ctrl+S keys.

The file can be saved under a different name by selecting the save as option available in the file menu.

Q.3.   Describe the use of the Thesaurus in Word.

Ans.: Thesaurus is a book in which words and phrases of similar meaning are grouped together. Thesaurus is used to get synonyms for words. By thesaurus we can replace the word we have used in our document. It is used in following way –

- Select the word we want to seek synonym of
- Select language option from the tools menu. Select the saurus from the given list.
- Select the synonym of our choice and click replace button.

Q.4.   What is difference between 'Paragraph Formatting' and 'Character Formatting'?

Ans.: **Paragraph formatting** enhances the looks of a word document. Following are some aspects of paragraph formatting.

1) Text alignment

2) Indents

3) Line spacing

4) Spacing between paragraph

Formatting toolbar or paragraph dialog box can be used for paragraph formatting. Following procedure is used to open paragraph dialog box :

- Click on the format menu.
- Select paragraph option from the given list.

Character formatting enhances the looks of a word document. Following are some aspects of character formatting.

1) Bold

2) Italic

3) Underline

4) Font colour

5) Font size

Character formatting toolbar or font dialog box can appear format menu. Following procedure is used to open font dialog box.

- Click on the format menu.

- Select font option from the format menu.

Q.5. **Why 'Header' and 'Footer ' is being used? Explain its process.**

Ans.: Header and footer is the text matter, which is typed at the top of each page of the document.

Header & footer toolbar is used to insert headers in the document by the following way :

- Click on the view menu

- Select ;header option from view menu

- Type the text which is to be displayed in the header of every page.

- Header & footer toolbars can be used for inserting auto page No, auto time or date etc.

- Click on the close button of the header.The header and footer will appear on every page automatically.

Q.6. **How the part of Text is selected in a Document? Explain how Text is converted to Table.**

Ans.: The part of the text which is to be edited must be selected first. In order to select the text, place the cursor at the beginning of the text and drag the mouse to the end of the text. The selected text gets highlighted. After selecting the text, we can delete it from the document, move it and copy it else where or change its formatting.

Convert the selected text to a table. Converts a selected table or selected table rows to text, separating the contents of the cells in each row with the separator we specify.

Header and footer is the text matter, which is typed at the top of each page of the document.

Q.7.   Describe the functions of various ICONS available in Standard Toolbar.

Ans.: 1)   **New :** Create a new, blank file based on the default template.

2)   **Open :** Opens or finds a file.

3)   **Save :** Saves the active file with its current file name, location and file format.

4)   **Email :** In MS word, sends the contents of the document as the body of the email message.

5)   **Search :** Finds files, web pages, and outlook items based on the search criteria we enter.

6)   **Print :** Prints the active file or selected items to select prints options on the file menu.

7)   **Print Preview :** Shows how a file will look when we print it.

8)   **Spelling & Grammar :** checks the active document for possible spelling grammar and writing style errors.

9)   **Cut :** Removes the selection from the active document and places it on the clipboard.

10)   **Copy :** Copies the selection to the clipboard. Inserts the contents of the clipboard at the insertion point and replaces

11) **Paste :** Any selection. Copies the format from a selected object or text and applies.

12) **Format Painter :** It to the object or text you click.

13) **Undo :** Reverses the last command or deletes the last entry we typed.

14) **Redo :** Reverses the action of the undo command.

15) **Insert Hyperlink :** Inserts a new hyperlink or edits the sleeted hyperlink.

16) **Tables & Borders :** Display the tables and borders toolbar which contains tools for creating editing and 500 ting a table and for adding or changing border to selected text.

17) **Insert Table :** Inserts a table in the document with the number of columns and rows you specify. Inserts a new MS Excel worksheet at the insertion point. Drag to select the number of rows and columns.

18) Insert Microsoft Excel worksheet.

19) **Columns :** Changes the number columns in a document or a section of document.

20) **Drawing :** Displays or hides the drawing toolbar.

21) **Document Map :** Edge of the document widow that outlines the document structure. Display formatting marks such as tab, Characters, Paragraph.

22) **Show/Hide :** Mark and hidden text.

23) **Zoom :** Enter a magnification between 10 and 400 percent to reduce or enlarge the display of the active document.

24)   **Microsoft Word Help :** The office Assistant provides Help topics and tips to help we accomplish our task.

Practical Questions :

I.   How main text and data sources are created in mail merge in MS-Word? Perform the operation on computer.

II.   Create a table with 4 rows and 3 columns. Let the column names be quantity, price and amount. Give an appropriate heading at a font size of 14 and font colour as Red. Write the steps.

III. What is a Macro? How it is created.

IV.   Create your Bio-data on computer and also write steps to add your photo to it.

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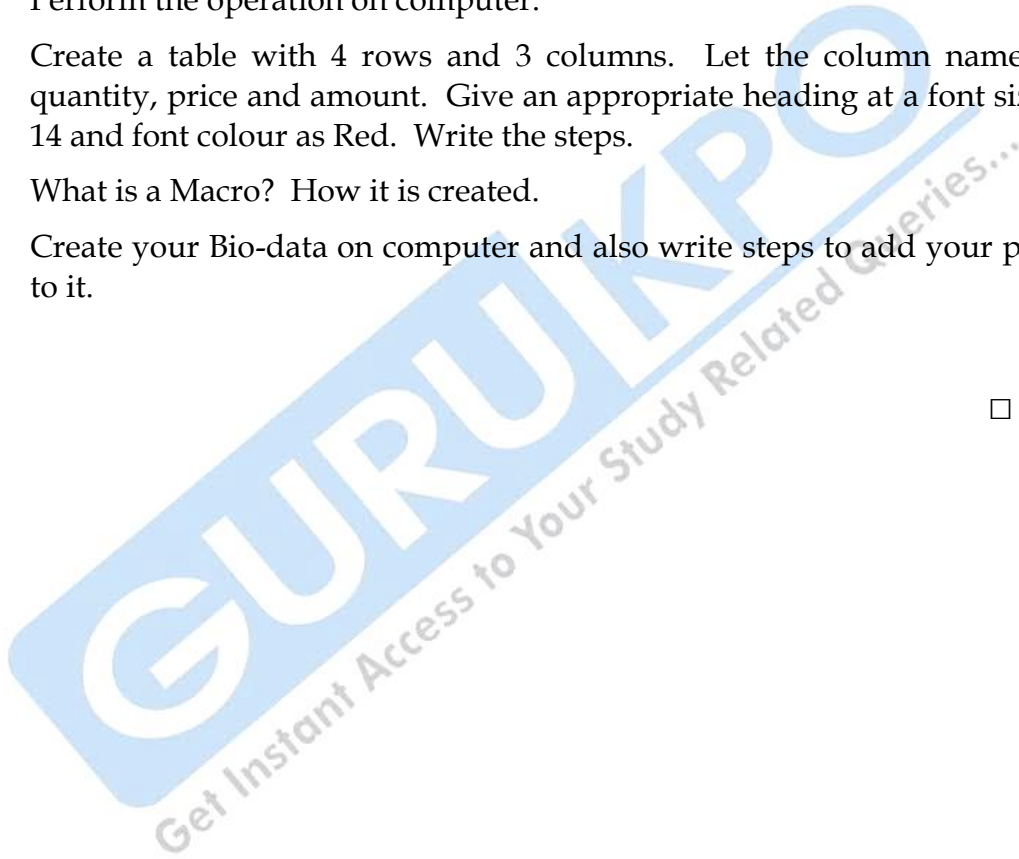
Spreadsheet Programme : MS Excel

Q.1. **Name four Data Types you can enter in a Worksheet. What is 'Merge Centre' facility in Excel.**

Ans.: First of all enter the different four data :

Sometimes text needs to be placed just in the middle of several columns. Following is the procedure for doing the same :

- Select the cell containing the text which is to be placed at the middle.

- Drag the move up to the cell between which the text is to be placed in the middle. All the selected call will get highlighted.

- Click merge and center button on the toolbar.

Q.2. **What is 'Call Reference'? Explain its advantage.**

Ans.: Cell reference means cell address. The cells are referred by the column alphabet followed by the row number. In a formula we can give the reference of the cell inserted of the actual value of the cell.

Cell reference (address) makes the working with formulate much easier and less cumbersome by copying the formula of a cell to another cell. It will change the values of that cell accordingly.

Q.3. **Differentiate between 'Spreadsheet' and 'Worksheet'.**

Ans.: A spreadsheet is simply a table or matrix of row and columns, very similar to an accounting journal. The intersection of each row and column is called a cell. A cell can hold any type of data, including numbers, formulas and texts. The major difference between an electronic spreadsheet and an accounting journal is the enhanced flexibility, speed and accuracy provided by an electronic spreadsheet.

Q.4. What do you mean by 'Fill Handle'? How the contents of a cell are copied to another cell by issuing Fill Handle?

Ans.: The Fill Handle in Excel is possibly one of Excels most under utilized features for those of you that do not know of it. It's the small black square in the bottom right of the active cell. In its simplest form it will increment any series of numbers.

The other thing that you can do with the fill handle is drag it up or to the left to clear the contents of selected cell(s). You can even insert or delete rows or columns by holding down the shift key while dragging the fill handle.

The other little known feature is **Excel Pourip.** Fill menu you get when you right click on the Fill Handle and drag try this :

1) Type any number in any cell.

2) Select the cell.

3) Right click on the fill handle.

4) Drag down and then release.

5) Select fill series.

Q.6 Describe how charts can be created and formatted in MS Excel.

Ans.: Excel provides the facility of creating a chart from the data at any point of time. Following is the process of creating a chart :

- Enter the numeric data in the worksheet.

- Select those cells (for which the chart is to be prepared) by dragging the mouse.

- Select the chart option in the insert menu.

- The chart wizard would be displayed on the screen. We can also select the chart wizard icon from the toolbar.

- Some question answer boxes are displayed in chart wizard. Fill them accordingly and click the next button. The chart wizard then changes the screen accordingly.

- Click the finish button on the last page (screen) of chart wizard. The desired chart will be displayed on the screen.

Q.7. For what types of application MS-Excel is appropriate?

Ans.: M.S. Excel provides different type of applications. These are –

- Accounting – Investment Analysis – Budgeting.

- Projected Cash Flows – Tax Calculations – Inventory Control – Graphical Representation of Data.

Practical Questions :

I. Create following spreadsheet in Excel :

Emp. No.	Name	Basic	HRA	DA	PF	Total salary

Calculate DA as 75% of basic.

HRA as 15% of Basic

P.F as 10% of Basic

Total salary as (Basic + HRA + DA + PF)

Assume any10 staff of your college.

I.   Create a worksheet showing three set of data of an experiment as given below :

Magnetic field due to a circular coil at axial Point.

Axial Distance	First Set	Second Set	Third Set
10	88.388	53.033	35.355
20	22.361	13.416	8.944
30	7.906	4.743	3.162
40	3.567	2.140	1.427
50	1.886	1.131	0.754
60	1.111	0.666	0.444

And create a line chart taking three set of data on Y-axis and Axial distance on X-axis.

III.   Make mark sheet of 10 students of your college and calculate total marks, percentage. Give them grade as follows :

Grade A : If avg > 85

Grade B : If avg < 85& Avg > 70

Grade C : if avg < 70 & Avg > 60

Grade D : If avg < 60 & Avg > 45

Grade E : If Avg < 45 & avg > 40

Fail :   If avg < 40

□ □ □

CHAPTER-9

DBMS : MS Access

Q.1. **What is Database? Write the names of Data Types used in Access.**

Ans.: A database is the collection of all the required information pertaining to a particular subject.

The data is to be stored in a single database. The information is stored in a tabular form in a database. A database consists of records and fields just as a table consists of rows and columns.

Data Types in Access :

(1) **Text** : it is used to store alphanumeric data.

(2) **Number :** it is used to store numeric data.

(3) **Date/Time** : it is used to store date and time.

(4) **Currency** : It is used to store monetary value.

(5) **Memo :** It is used to store long text field.

(6) **Auto Numbers :** In this data type a unique number is generated automatically which cannot be altered.

(7) **Yes/No** : It is used to store Boolean data. It contains only Yes/No or true/False as its values.

Q.2 **Write the importance of Query in MS Access. Describe the process of Query from the Database.**

Ans.: Queries are used to extract specific information from the database. It is like asking a question to the access and finding out the answer. Query can be saved to use it on a later stage. The procedure for creating a query is as under :

- Select queries option from the list of objects.

- The database window.

- Click on new, and then a new query dialog box appears. Now select Design View and click on OK.

- Click on OK button. It would open the show table.

- In the show table, dialog box select the required table, FOC instance select student table and click on the add button and then click on the close button. This is called Selection of data source for a query.

- Double click the desired fields of query in the data source.

- To sort the records, click the sort cell for the field that you want to sort and then select ascending or descending from the drop-down list.

- You can specify a condition in the query box. Such as if A is typed in the criteria of the section field, then the output of query will be students studying in section A only.

- After creating the query, save the query as query by selecting save as option from the file menu.

- For viewing the output of the query, click on the view menu and select the datasheet view option. The result of the query will be displayed.

Q.3   How the Report is created in MS Access?

Ans.: MS Access provides the facility of generating reports based on the output of queries.

Report is created in MS-Access :

- Open the Database window.

- Select report option from the objects list and click on new.

- New Report dialogue box appears on the screen. Then select Report wizard option.

- Choose the table or query where the objects data comes from.

- Select the name of the table of database or the query for which you want to create the report.

- Select the required fields which you want to include in the report in the available fields and send it to the select fields by using > and >> buttons.

- Click on the next >button. A new report wizard dialog box will appear on the screen for grouping level options.

- Click on the next > button. Another report wizard dialog box will appear on the screen asking for ascending or descending order of fields.

- Click on the next > button. The next report wizard dialog box appears which contains layout and orientation option for the report. We have selected tabular layout and portrait orientation.

- Click on the next> button. The next report wizard dialog box appears which ask about the style of the report. We have selected casual style.

- Click on the next > button. The last report wizard dialog box appears, which ask for the title of the report.

- Click on the finish button, the report will be generated and will be displayed on the screen. This report can be printed using the printer attached to the computer.

Q.4 **Describe the important features of MS Access specially related to Sorting.**

Ans.: Sorting is a technique that you can use to rearrange records in a way that makes it easier for you to understand your data. When we sort the records in an object, such as a table or form, access displays them in the order that we want.

Features of Sorting Order :

- Sort records based on a text, memo or hyperlink field.

- Sort record based on a number, auto number or currency field.

- Sort records based on a data/Time field.

- Sort records based on IP address.

- Sort record rescinding or descending order.

Q.5   Explain basic difference between MS Excel and MS Access.

Ans.: MS Excel is an electronic spreadsheet package developed by Microsoft, USA. It is window based software. It is an application programme, which was developed for performing various arithmetic calculations easily and efficiently. To assist us in recording and calculations, the computer world has given us an electronic spreadsheet. An electronic spreadsheet is a matrix of rows and columns which has inbuilt facility to do the calculations. Electronic spreadsheet can be used for various task in business areas like following:

- Accounting

- Investment analysis

- Budgeting

- Project cash flows

- Tax calculations

- Inventory control

- Graphical representation of data

MS Access is designed to create table's forms and reports based on records that you create. Access helps in organizing this information and uses it as the basis of queries, which filter the data in specified ways. Access helps to manage large amounts of information land to show relationship among them. Access also allows arranging data in visually attractive formats.

The information is stored in a tabular form in database.

Q.6   Describe the Access of adding fields to the Database Table.

Ans.: A column in a table is called field.

Adding a Field to the Table :

- Type the name of the field in the first row of the table.

- Click the tab key on the keyboard to move to the next column.

- Select the appropriate data type from the drop down lists in the data type column. We can also determine the field size as per nature of the field by selecting suitable option available in the field properties. The default field size for text is 50 characters which can be reduced or increased as per the requirement.

- Select the 'save as' option in the file menu.

- Type the name of the table in the provided box and click OK.

- By following the same procedure various fields such as name, address, phone No. reach the destination in the shortest possible time.

Practical Questions :

1) Create a database having following fields :

Product ID	Auto number
Product Code No.	Text
Product Name	Text
Unit in Stock	Number
Unit Price	Currency

a)   Enter 20 records.

b)   Save the table as 'Inventory of products.

c)   Edit the 5th, 9th, 17th record.

d)   Create a query to list the 'product name' having 'unit in stock less than 10.

❑ ❑ ❑

Internet and Online Resource

Q.1   Write the advantage of using the Bulletin Board Services.

Ans.: Bulletin Board Services : The ;information which is to be provided to a number of Internet users simultaneously is displayed on the bulletin board.   All users who are linked with Bulletin board can red the information available on it.   Users can also write their own views on the bulletin board which can be accessed by other users.   Normally a Bulletin Board is related to particular subject users having their interest in the subject can view the information, write their views and interact with other users having similar interest.   Some Bulletin board provides free software which can be easily downloaded by the users.   Most popular bulletin board service is net news.   In net-news on individual electronic bulletin board is called a newsgroup. The network of computers that use net-news is collectively referred as use-net.

Q.2   What is World Wide Web (WWW)?   Describe its evaluation.

Ans.: World Wide Web : WWW or Web is the most popular mode of obtaining information on the internet.   The WWW is on internet based network of wed servers.   A web server is the host computer that provides information for user to view information available on the wed can be assessed.   Read downloaded and printed by computers connected to the internet.   Information on the web can be in the form of text.   Graphs, pictures and sound are available in the form of web pages.   An internet user can view the web page with the help of a web browser.   Web browser is software

which links a web user to the web site and provides the facility of viewing. Listening and collecting the available information on that website. Internet Explorer and net scope navigator are popular web browsers.

Q.3. **Write difference between IP address and Domain Address.**

Ans.: Every computer connected to the internet has its own specific address. Through this address the user can establish connectivity with other computers and exchange information. Two computers connected to the internet cannot have the same address. The address on the internet is given through following two methods :

(1)   Domain Name Address

(2)   I.P. Address

(1)   Domain Name Address : Under this system, the connected computers are allotted address in the shape of words, which specify the location of the computer so that it can be accessed. Domain name tells about the organization, the type of organization and the country of the host computer. This can be clearly understood by the following example -

The information provided by this address is as under :

` **IN   –**   The best computer is located in India.

ORG –   It is a non commercial organization.

RBI   -   This is the name of the organization (Reserve Bank of India).

DOMAIN TYPE DESCRIPTION :

.FOM   :   COMMERCIAL ORGANISATION

.NET   :   NETWORK ORGANISATION

.EDU   :   EDUCATIONAL INSTITUTION

.GOV   :   GOVERNMENT ORGANISTION

.MIL   :   MILITARY ORGANISATION

.ORG   :   NON-COMMERCIAL ORGANISAION

.INT   :   INTERNATIONAL ORGANISATION

(2)   IP Address : All host computers connection to the internet have a numeric code, which is called the IP address. IP address is a 32 bit number, which has 4 parts, each of 8 bits. These 4 parts are separated by '.''(dot). Each 8 bits has decimal numbers between 0 to 255.

FOREX MICROSOFT – COM is 191.24.56.100.

The domain address of the host computer is expressed in English alphabets which is easy to remember for a user. Whereas the IP address of the host computer is expressed in numerals which is comparatively difficult to remember.

Domain name tells about the organization, the type of organization and the country of the host computer. This can be clearly understood by the following example.

The information provided by this address is as under :

IN   -   The host computer is located in India.

ORG   -   It is a non commercial organization.

RBI   -   This is the name of the organization (Reserve Bank of India)

Domain type	Country
.In	India
.Au	Australia
.UK	United Kingdom
.Ch	China

Some domain names on the internet are not based on the geographical location and they describe the type of the organization.

Domain Type	Description
.com	Commercial organization
.net	Network organization
.edu	Education organization

Q.4. What is E-commerce? How it is beneficial to the large and small Businessmen.

Ans.: E-commerce means business ;thorugh internet. Buying or selling the goods and services through internet is known as e-commerce and banking, e-shopping ;and e-business are different forms of e-commerce.

It has provided a global market for manufacturers and sellers for their products ;and services.

There are three types of **E-commerce :**

1.	B 2 B (Business to business)	–	Transaction between two companies.
2	B 2 C (Business to consumer)	–	Transaction between company and a consumer.
3.	C 2 C (Consumer to consumer)	-	Transaction between two consumers.

Advantages of E-commerce :

1) Availability of global market

2) Opportunities for the buyer to buy at lower cost.

3) Exchange of business information at faster speech and lower cost.

4) Reduction in marketing expenses.

5) A consumer can select the required product or service from various available options.

6) Smaller manufacturers can compete with large manufacturers.

Q.5. Describe how a Dial-up-Access Account can be installed on your Computer.

Ans.: Dial up networking must be in the computer to set TCP/IP on the computer. This is automatically loaded in the computer with installation of windows. The check whether your computer has dialup networking or not open my computer to see the dialup networking icon. If it is not present in the computer, it can be set in the following way –

1) Click on the start button, then setting and then control panel.

2) Click on the add/remove programs in the control panel.

3) Click on the windows setup on the add/remove programme properties box. Click on the communication and then on the details button.

4) Click on the checkbox of the dialup networking and then click OK.

Q.6. What is function of MODEM? Explain step for installation of Modem on your Computer.

Ans.: Modem is hardware device which helps in linking one computer to other. Modem is use between the computer and the telephone line to get connected to the internet. It converts the digital signals to analog signals. These analog signals are transmitted through telephone lines. The process of converting digital signals into analog signals is called modulation while the process of converting analog signals into digital signals is called demodulation.

Following is the **process of installing a modem :**

1) Internal modem is fixed on the mother board of lthe computer ;while external modem is connected while external modem is connected to the computer with the help of cable.

2) Connect the cable of the telephone line in the link jack of the modem.

3) Turn on the computer.

4) Click on the start button, then settings and then control panel. The window of the control panel has many icons.

5) Double click on the modem icon on the control panel. Modem properties dialog box will be appearing. Click on the add button.

6) Install new modem box --- will appear after the odd button is clicked.

7) Click on 'Next>' box.

8) If the type of the modem is known then click on the Don't detect my modem. I will select it from a list appeared on the screen or let the computer itself search the type of modem.

9) Click on next button. Select the manufacturer and the type of the modem from the list in the box. Click on the next button.

When the message that your modem has been setup successfully appears in the box, click on the finish button. In this way selected modem is installed in the computer which can be viewed in the modems properties box.

Click on the dialing properties button and set the area code and dialing mode (pulse on tone) and then click OK.

Q.7.   What is Universal Resource Locator (URL)?

Ans.: Universal resource locater addresses of the desired website in the address bar and click on the open. The URL is nothing but the address of a web page. The home page of the typed URL will be displayed on the window of the browser. Home page contains several hyperlinks, which are usually underlined or highlighted. The subject matter which the user wishes to view will be displayed on the screen by clicking the relevant hyperlink.

The first page of any website is called the homepage of that site. The address of that homepage is called universal resource locater (URL). The technology used for creating homepage is called hyper media technique. The important words and graphics on a web page have a hyperlink, which is not visible to the user. By clicking on these hyperlinked words/graphics, the page linked to that topic appears on the screen.

Q.8.   How an E-mail Account is created?   What are different Search Engine? Name two.

Ans.: The following way to create E-mail Account :

   i)   Start the computer double click on internet explorer.

   ii) Give the address of your site in which the e-mail account has to be created (in address bar).

   iii) Click on sign up option and a form will appear.

   iv) Fill the details of the form and accept all the terms and conditions.

An e-mail account will be created.

Searching the desired information on the internet is done through search engine. Search Engines are actually data bases that contain references of thousands of resources on the net. Search Engines are used when the address of the website which contain the required information is not known. A user can select the website out of the searched list. Some of the popular search engines are as follows :

- Altavista.com
- Lycos.com
- Yahoo.com
- Khoj.com
- 123 india.com
- Indiatimes.com
- Excite.com
- Google.com

Q.9. What is Browser? Name some popular Browsers.

Ans.: Browser is software that is used for browsing the web pages. It connects the user to any website and provides the facility of viewing, listening reading and collecting the information available on the websites. Number of browser are available but the most popular browsers are :

- Internet Explorer (IE)

- Netscape Navigator

Web browser sends requests to the server computer regarding the desired website. The server computer receives the request and sends the desired data aback to the requesting computer. The web browsers received the information in the form of small packets. These packets are arranged properly by the browser and are displayed on the screen.

□ □ □
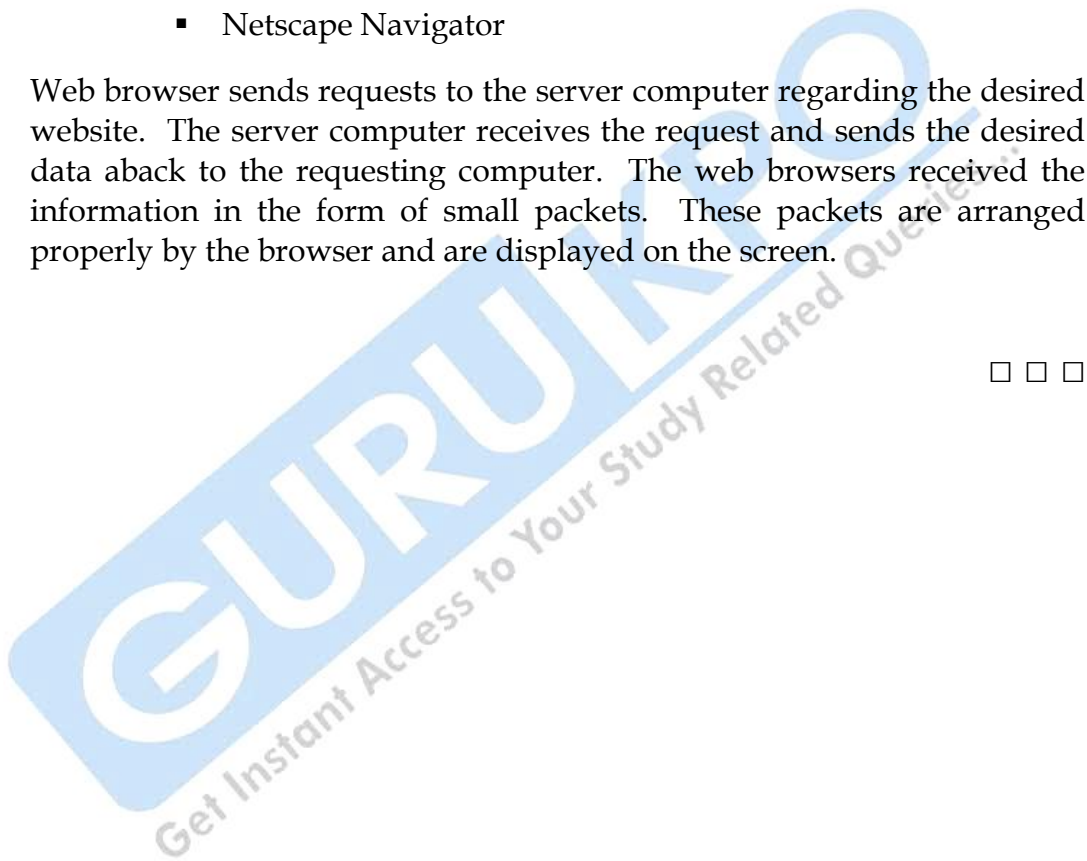
Algorithm and Application Programming

1.   **What are the various steps to plan Algorithm ?**

Ans.: Following steps must be followed to plan any algorithm :

   (1)   **Device Algorithm :** Creating an algorithm is an art in which may never be fully automated. When we get the problem, we should first analyse the given problem clearly and then write down some steps on the paper.

   (2)   **Validate Algorithm :** Once an algorithm is devised , it is necessary to show that it computes the correct answer for all possible legal inputs . This process is known as algorithm validation. The algorithm need not as yet be expressed as a program. It is sufficient to state it in any precise way. The purpose of validation is to assure us that this algorithm will work correctly independently of the issues concerning the programming language it will eventually be written in. Once the validity of the method has been shown, a program can be written and a second phase begins. This phase is referred to as program proving or program verification.

   (3)   **Analyse Algorithm :** As an algorithm is executed , it uses the computers central processing unit to perform operations and its memory (both immediate and auxiliary) to hold the program and data. Analysis of algorithm or performance analysis refers to the task of determining how much computing time and storage an algorithm requires. An important result of this study is that it

allows you to make quantitative judgments about the value of one algorithm over another. Another result is that it allows you to predict whether the software will meet any efficiency constraints that exist. Analysis can be made by taking into consideration.

(4) **Test A Program :** Testing a program consists of 2 phases : debugging and performance management. Debugging is the process of executing programs on sample data sets to determine whether results are incorrect if so corrects them. Performance management is the process of executing a correct program on data sets and measuring the time and space it takes to compute the results. These timing figures are useful in that they may confirm a previously done analysis and point out logical places to perform useful optimization.

Q.2   What is Pseudo code? What are its benefits?

Ans.: An outline of a program, written in a form that can easily be converted into real programming statements.

Some examples of pseudo code are :

1.   If student's grade is greater than or equal to 60

            Print "passed"

else

            Print "failed"

2.   Set total to zero

        Set grade counter to one

While grade counter is less than or equal to ten Input the next grade

            Add the grade into the total

Set the class average to the total divided by ten

Print the class average.

Print 'no grades were entered'

3.   The pseudo code for a bubble sort might be written :

while not at end of list

compare adjacent elements

if second is greater than first

switch them

get next two elements

if elements were switched

repeat for entire list

Pseudo code cannot be compiled nor executed, and there are no real formatting or syntax rules. It is simply one step - an important one - in producing the final code. The benefit of pseudo code is that it enables the programmer to concentrate on the algorithms without worrying about all the syntactic details of a particular programming language. In fact, you can write pseudo code without even knowing what programming language you will use for the final implementation.

Q.3   What is Flowchart? What are various symbols of Flowchart?

Ans.: A flowchart is a diagrammatic representation that illustrates the sequence of operations to be performed to get the solution of a problem. Flowcharts are generally drawn in the early stages of formulating computer solutions. Flowcharts facilitate communication between programmers and business people. These flowcharts play a vital role in the programming of a problem and are quite helpful in understanding the logic of complicated and lengthy problems. Once the flowchart is drawn, it becomes easy to write the program in any high level language. Often we see how flowcharts are helpful in explaining the program to others. Hence, it is correct to say that a flowchart is a must for the better documentation of a complex program**.**

Example of a simple flowchart: a flowchart to find the sum of first 50 natural numbers.

```
            ┌──────────┐
            │  START   │
            └────┬─────┘
                 ▼
            ┌──────────┐
            │ SUM = 0  │
            └────┬─────┘
                 ▼
            ┌──────────┐
            │  N = 0   │
            └────┬─────┘
                 ▼
            ┌──────────┐
            │ N = N + 1│
            └────┬─────┘
                 ▼
         ┌────────────────┐
         │ SUM = SUM + N  │
         └───────┬────────┘
                 ▼
    NO      ◇ IS N=50? ◇
                 │ YES
                 ▼
           ╱ PRINT SUM ╱
                 │
                 ▼
            ┌──────────┐
            │   END    │
            └──────────┘
```
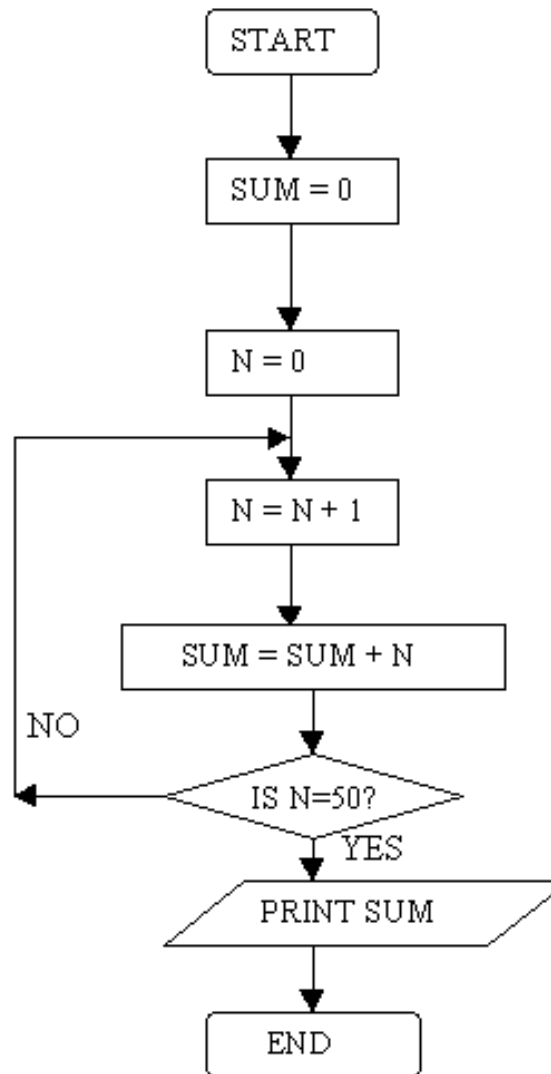
Various symbols used in flowchart are :

Flowcharts use special shapes to represent different types of actions or steps in a process. Lines and arrows show the sequence of the steps, and the relationships among them.

Start/End : The terminator symbol marks the starting or ending point of the system. It usually contains the word "Start" or "End."
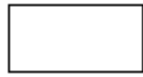
Action or Process : A box can represent a single step ("add two cups of flour"), or and entire sub-process ("make bread") within a larger process.
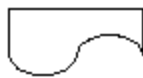
Document : A printed document or report.

Decision : A decision or branching point. Lines representing different decisions emerge from different points of the diamond.

Input/Output : Represents material or information entering or leaving the system, such as customer order (input) or a product (output).

Connector : Indicates that the flow continues where a matching symbol (containing the same letter) has been placed.

Flow Line : Lines indicate the sequence of steps and the direction of flow.

Database : Indicates a list of information with a standard structure that allows for searching and sorting.
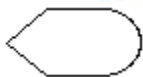
Display : Indicates a step that displays information.

Q.4   What are the advantages and disadvantages of using Flowcharts?

Ans.: Advantages of using Flowcharts : The benefits of flowcharts are as follows :

- **Communication :** Flowcharts are better way of communicating the logic of a system to all concerned.

- **Effective Analysis :** With the help of flowchart, problem can be analysed in more effective way.

- **Proper Documentation :** Program flowcharts serve as a good program documentation, which is needed for various purposes.

- **Efficient Coding :** The flowcharts act as a guide or blueprint during the systems analysis and program development phase.

- **Proper Debugging :** The flowchart helps in debugging process.

- **Efficient Program Maintenance :** The maintenance of operating program becomes easy with the help of flowchart. It helps the programmer to put efforts more efficiently on that part

Limitations of using Flowcharts :

- **Complex Logic :** Sometimes, the program logic is quite complicated. In that case, flowchart becomes complex and clumsy.

- **Alterations and Modifications :** If alterations are required the flowchart may require re-drawing completely.

- **Reproduction :** As the flowchart symbols cannot be typed, reproduction of flowchart becomes a problem.

- The essentials of what is done can easily be lost in the technical details of how it is done.

Q.5   What is Time Complexity & Space Complexity measures of Algorithm?

Ans.:   The **time complexity** of a problem is the number of steps that it takes to solve an instance of the problem as a function of the size of the input (usually measured in bits), using the most efficient algorithm. To understand this intuitively, consider the example of an instance that is n bits long that can be solved in n^2 steps. In this example we say the problem has a time complexity of n^2. Of course, the exact number of steps will depend on exactly what machine or

language is being used. To avoid that problem, the Big O notation is generally used (sometimes described as the "order" of the calculation, as in "on the order of"). If a problem has time complexity $O(n^2)$ on one typical computer, then it will also have complexity $O(n^2)$ on most other computers, so this notation allows us to generalize away from the details of a particular computer.

Example : Mowing grass has linear time complexity because it takes double the time to mow double the area. However, looking up something in a dictionary has only logarithmic time complexity because a double sized dictionary only has to be opened one time more (i.e. exactly in the middle, then the problem size is reduced by half).

The **space complexity** of a problem is a related concept, that measures the amount of space, or memory required by the algorithm. An informal analogy would be the amount of scratch paper needed while working out a problem with pen and paper. Space complexity is also measured with Big O notation.

Q.6 What is if else Statement?

Ans.6 This is used to decide whether to do something at a special point, or to decide between two courses of action.

The following test decides whether a student has passed an exam with a pass mark of 45

```
if (result >= 45)
        printf("Pass\n");
else
        printf("Fail\n");
```

It is possible to use the if part without the else.

```
if (temperature < 0)
        print("Frozen\n");
```

Each version consists of a test, (this is the bracketed statement following the if). If the test is true then the next statement is obeyed. If is is false then the statement following the else is obeyed if present. After this, the rest of the program continues as normal.

If we wish to have more than one statement following the if or the else, they should be grouped together between curly brackets. Such a grouping is called a compound statement or a block.

```
if (result >= 45)
{       printf("Passed\n");
        printf("Congratulations\n")
}
else
{       printf("Failed\n");
        printf("Good luck in the resits\n");
}
```

Sometimes we wish to make a multi-way decision based on several conditions. The most general way of doing this is by using the else if variant on the if statement. This works by cascading several comparisons. As soon as one of these gives a true result, the following statement or block is executed, and no further comparisons are performed. In the following example we are awarding grades depending on the exam result.

```
if (result >= 75)
        printf("Passed: Grade A\n");
else if (result >= 60)
        printf("Passed: Grade B\n");
else if (result >= 45)
        printf("Passed: Grade C\n");
else
        printf("Failed\n");
```

In this example, all comparisons test a single variable called result. In other cases, each test may involve a different variable or some combination of tests. The same pattern can be used with more or fewer else if's, and the final lone else may be left out. It is up to the programmer to devise the correct structure for each programming problem

Q.7 What are the different types of Loops?

Ans.: **Iteration Structures (Loops) : Loops have as purpose to repeat a statement a certain number of times or while a condition is fulfilled.**

The while loop

Its format is :

while (expression) statement

and its functionality is simply to repeat statement while the condition set in expression is true. For example, we are going to make a program to countdown using a while-loop:

The do-while loop

Its format is :

do statement while (condition);

The for loop

Its format is :

for (initialization; condition; increase) statement;

While loop

Checks condition for truthfulness before executing any of the code in the loop. If condition is initially false, the code inside the loop will never be executed.

```
while ( condition )
{
   /* code */
}
```

Do-While loop

Checks condition for truthfulness after executing the code in the loop. Therefore, the code inside the loop will always be executed at least once.

```
do
{
   /* code */
} while ( condition );
```

For loop

A simplified way to create a while loop.

```
/* for a real example of what a, b, or c might be, see example below */
for ( a; b; c )
{
    /* code */
}
```

a is executed just once before the loop. **b** is the condition of the loop. **c** is executed at the end of every loop.

So for example, the following while loop:

```
int i = 0;
while ( i < 10 )
{
    /* code */
    i++;
}
```

Could be written as the following for loop:

```
for ( int i = 0; i < 10; i++ )
{
    /* code */
}
```

Examples

It continues looping while **x** does not equal **3**, or in other words it only stops looping when **x** equals **3**. However, since **x** is initialized to **0** and the value of **x** is never changed in the loop, the loop will never end .

```
int x = 0;
while ( x != 3 )
{
  /* code that doesn't change x */
}
```

The while loop below will execute the code in the loop 5 times. **x** is initialized to 0, and each time in the loop the value of **x** is incremented. The while loop is set up to stop when **x** is equal to 5.

```
int x = 0;
while ( x != 5 )
{
  /* code here */
  x = x + 1;
}
```

Q.8 What is break and continue statement?

Ans.Break Statement

We have already met break in the discussion of the switch statement. It is used to exit from a loop or a switch, control passing to the first statement beyond the loop or a switch.

With loops, break can be used to force an early exit from the loop, or to implement a loop with a test to exit in the middle of the loop body. A break within a loop should always be protected within an if statement which provides the test to control the exit condition.

Continue Statement

This is similar to break but is encountered less frequently. It only works within loops where its effect is to force an immediate jump to the loop control statement.

- In a while loop, jump to the test statement.
- In a do while loop, jump to the test statement.
- In a for loop, jump to the test, and perform the iteration.

Q.9 What is array?

Ans. An array is a series of elements of the same type placed in contiguous memory locations that can be individually referenced by adding an index to a unique identifier.

 Declaration of an Array

Arrays must be declared before they can be used in the program. Standard array declaration is as

type variable_name[length of array];

Here type specifies the variable type of the element which is going to be stored in the array. In C programming language we can declare the array of any basic standard type which C language supports. For example

```
double height[10];
float width[20];
int min[9];
char name[20];
```

Initializing Arrays

Initializing of array is very simple in c programming. The initializing values are enclosed within the curly braces in the declaration and placed following an equal sign after the array name. int myArray[5] = {1, 2, 3, 4, 5}; //declare and initialize the array in one statement

Q.10 What is the difference between structure and arrays?

Ans.10 Array:An array is defined as a group of related data items stored by means of a single variable name.
Structure: Structure is defined as a data type to represent several different types of data with a single name.
Difference:
1. All data in a array should be of same data type. But in structures data can be of different data types.
2. Individual entries in an array are called elements. But in structure individual entries are called members.

Programs

Program to find the largest and the second largest out of three numbers*/

```
#include<conio.h>
#include<stdio.h>
void main ( )
{
int a,b,c;
printf ("enter three numbers\n");
scanf ("%d%d%d", &a,&b,&c);
if ((a>b)&&(a>c))
{
        if (b>c)
        {
        printf ("largest no is =%d\n",a);
        printf ("second largest no is =%d\n",b);
        }
        else
        printf ("secondlargest no is =%d\n",c);
}
else
if ((b>a) && (b>c))
{
        if (a>c)
        {
```

```
        printf ("largest no is = %d\n",b);
        printf ("second largest no is =%d\n",a);
        }
        else
        printf ("second largest no is =%d\n",c);
}
else
if ((c>a) && (c>b))
{
        if (a>b)
        {
        printf ("largest no is =%d\n",c);
        printf ("second largest no is =%d\n",a);
        }
        else
        printf ("second largest no is =%d\n",b);
}
getch ();
}
```

2. **/*program to find the largest and the second largest element from array*/**

```
#include<stidio.h>
#include<conio.h>
void main ( )
{
Clrscr ();
```

```
int a[10], lm, max, j, smax;
printf ("\nenter limit for array");
scanf ("%d",& lm);
printf ("\nenter array elements");
for (i=0; i<lm; i++)
{
Scanf ("%d", & a[i]);
}
Max = a[0];
for (i = 1; i<lm; i++);
{
        if (max<a[i])
        max =a[i];
}
printf ("\nthe largest element in array is=%d", max);
smax=a[0];
for (i=0; i<lm; i++)
{
        if (a[i] ! = max)
        {
        if  (smax<a[i])
        smax=a[i];
        }
        else
        i =i++;
}
printf ("\nsecond largest element in array is =%d", smax);
```

```
getch ();
}


3.    /*Program to concatenate two strings*/
#include<conio.h>
#include<stdio.h>
void main ( )
{
char a1[10], a2[10], a3[25];
int i, j ;
clrscr ();
printf ("enter the first string");
scanf ("%s, a1);
printf ("enter the second string");
scanf ("%s",a2);
for (i = 0; al[i]! ='\0'; i++);
{
a3 [i] = al [i];
}
a3 [i] = ' ' ;
for (j =0; a2[j] ! ='\0', j++)
{
a3 [i+j+1] =a2 [j];
}
a3 [i+j+1] = '\0' ;
printf ("string is %s", a3);
getch ();
```

}

4.   **/*Program to convert any decimal number into binary form*/**

```
#include<stdio.h>
#include<conio.h>
void main ( )
{
clrscr ();
int d,val, i =0, b[25], position;
d =1;
printf ("enter value to be converted");
scanf ("%d", & val);
while (val/2 != 0)
{
        b [i] = val%2;
        val =val/2;
        I = i++;
        position = i ;
}
Printf ("\nthe binary equivalent of the decimal number is \n%d",d);
For (i = position -1; i>=0; i--)
Printf ("\n%d",b[i]) ;
getch ();
}
```


5.   **/*Program to find factorial of a number*/**

```
#include<stdio.h>
```

```
#include<conio.h>
void main ( )
{
clrscr () ;
int i, no, fact =1;
clrscr () ;
printf ("enter number for finding factorial");
scanf ("%d", & no);
for (i=no; i>=1 ; i--)
{
        Fact = fact * i ;
}
Printf ("factorial of %d is %d", no, fact);
getch ();
}
```

6.   **/*Program to print fibonacci series*/**
```
#include<stdio.h>
#include<conio.h>
void main ( )
{
clrscr () ;
int a=0, b= 1, lm, series, i ;
clrscr () ;
printf ("enter limit for series");
scanf ("\n%d", & lm);
printf ("\nthe fibonacci series is \n%d", a) ;
```

```
printf ("\n%d", b);
for (i=3; i<=lm ; i++)
{
        series = a+b ;
        printf ("\n%d", series) ;
        a=b;
        b=series;
}
getch ();
}
```

7.   /*Program to check whether number is prime or not*/

```
#include<stdio.h>
#include<conio.h>
void main ( )
{
plrscr ();
int i, no, mod=0;
printf ("enter no to be check");
scanf("%d", &no);
for (i=2; i<no; i++)
{
        if (no%i ==0)
        mod=1;
}
if (mod==1)
        printf ("the given number is not prime");
```

else

    printf ("the given number is prime");

getch ();

}

8.   **/*Program to print series*/**

```c
#include<stdio.h>
#include<conio.h>
void main ( )
{
int i, j, p=1, f=1, x, n, sum=0;
clrscr ();
printf ("enter limit");
scanf ("%d",&n);
printf ("enter number");
scanf ("%d", &x);
for (i=0; i<n ; i++)
{
p=p*<x ;
        for (j =i+1; j>=1; j--)
        {
        f=f *j;
        }
sum = sum+ (p/f);
f =1 ;
}
printf ("sum of the series is %d", sum);
```

```
getch ();
}
```

9.   **/*Program to print the star pattern*/**

```
#include<stdio.h>
#include<conio.h>
void main ( )
{
int i, j, n, k;
clrscr ();
printf ("enter limit");
scanf ("%d", &n);
for (i=0; i<n; i++)
{
        for (j=i; j<n; j++)
        {
        printf ("  ");
        }
                for (k=0; k<=I; k++)
                {
                printf (" * ") ;
                }
                printf ("\n");
        }
getch () ;
}
```

10.   **/*Program to print star pattern*/**

```
#include<conio.h>
#include<stdio.h>
void main ( )
{
int i, j, n ;
clrscr ();
printf ("enter the limit");
scanf ("%d", &n);
for (i=0; i<n; i++)
{
        for (j=i; j<=0; j--)
        {
        printf (" * ");
        }
                For (k=0; k<=I; k++)
                {
                printf (" * ") ;
                printf (" ");
                }
printf ("\n");
}
getch () ;
}
```

11.   **/*Program to count the number of digits in a given number*/**

```
#include<stdio.h>
#include<conio.h>
void main ( )
{
clrscr () ;
int num , t =0 ;
printf ("enter the number to be count");
scanf ("%d", &num);
while (num%10>=0)
{
        t = t++'
        num =num/10;
        if (num==0)
        break;
}
printf ("Total digits in given no is =%d", t);
getch () ;
}
```

12.   **/*Program to find length of the string */**

```
#include<stdio.h>
#include<conio.h>
void main ( )
{
char s1[10], s2[10] ;
```

```
int i;
clrscr ();
printf ("enter string");
scanf ("%s", s1);
for (i=0; s1[i] ! ='\0' ; i++)
{
s2[i]= sl[i];
}
s2[i]='\0';
printf ("length of the string is %d", i);
getch ();
}
```

13.   **/*Program to compare two strings*/**
```
#include<stdio.h>
#include<conio.h>
void main ()
{
char s1[10], s2[10];
int i ;
clrscr ();
printf ("enter string");
scanf ("%s", s1);
i= 0;
while ((s1[i] ==s2[i] && (s1[i] ! = '\0'&&s2[i]! ='\0'))
{
i =i+1;
```

```
if (s1[i] ==s2 [i])

{

printf ("equal string");

}

else

printf ("unequal string");

}

getch ();

}
```

14.   **/*Program of matrix addition*/**

```
#include<stdio.h>

#include<conio.h>

void main ( )

{

int i, j, a[3] [3], b[3] [3], c[3] [3];

printf ("enter elements of matrix a ");

for (i=0; i<3; i++)

{

        for (j =0; j<3; j++)

        {

        scanf ("%d", &a [i] [j]);

        }

}

printf ("enter elements of matrix b");

for (i =0;i<3; i++)

{
```

```
        for (j=0; j<3; j++)
        {
        scanf ("%d", &b[i] [j]);
        }
}
for (i=0; i<3; i++)
{
        for (j=0; j<3; j++)
        {
        c[i] [j] =a[i] [j] + b[i] [j];
        }
}
printf ("entered matrix a is 'n");
for (i=0; i<3; i++)
{
        for (j=0; j<3; j++)
        {
        printf ("%d\t", a [i] [j]);
        }
        printf ("\n");
}
printf ("entered matrix b is \n");
for (i=0; i<3; i++)
{
        for (j=0; j<3; j++)
        {
        printf ("%d/t", b [i] [j] ;
```

```
        }
        printf ("\n");
}
printf (("sum of above matrix is") ;
for (i=0; i<3; i++)
{
        for (j=0; j<3; j++)
        {
        printf ("%d\t", c [i] [j]) ;
        }
        printf ("\n") ;
}
getch () ;
}
```

15.   /*program of matrix addition*/

```
#include<stdio.h>
#include<conio.h>
void main ( )
{
int i, j, k, a[3] [3], b[3] [3], c[3] [3];
clrscr () ;
printf ("enter elements of matrix a ");
for (i=0; i<3; i++)
{
        for (j =0; j<3; j++)
        {
```

```
        scanf ("%d", &a [i] [j]);
        }
}
printf ("enter elements of matrix b");
for (i =0;i<3; i++)
{
        for (j=0; j<3; j++)
        {
        scanf ("%d", &b [i] [j]) ;
        }
}
for (i =0; i<3; i++)
{
        for (j=0; j<3; j++)
        {
        c [i] [j] =0 ;
                        for (k=0; k<3; k++)
                        {
                        c [i] [j] =c[i] [j] + a[i] [k] *b [k] [j] ;
                        }
        }
}
printf (product of above matrix is \n") ;
for (i =0; i<3; i++)
{
for (j =0; j<3; j++)
```

```
{
printf ("%d\t", c [i] [j]) ;
}
printf ("\n") ;
}
getch () ;
}
```

16.   /*Prgram of leap year*/

```
#include<stido.h>
#include<conio.h>
void main ()
{
clrscr ();
int a ;
printf ("enter");
scanf ("%d", &a);
if ((a%100==0) && (a%400==0))
{
        printf ("leap") ;
}
else
```

```
                    if ((%100!=0)&& (a%4==0))

                    {

                    printf ("leap") ;

                    }

            else

            printf ("not leap") ;

            getch () ;

            }
```

❑ ❑ ❑

Computer Fundamentals

Unsolved Paper – 2011

Time Allowed : 2 Hours   *Max .Marks: 40*
Question Nos. 1 and 2 will be compulsory. **Q. No. 1 & 2 carries equal 10 marks.**

Part-I

Q. 1
1.   Which one is the fastest memory?
      (a) RAM   (b) ROM
      (c) Cache   (d) Registers

2.   VGA stands for …………….
      (a) Video Graphics Amplifier
      (b) Video Graphics Accelerator
      (c) Visual Graphics Audio
      (d) Visual Graphics Accelerator

3.   Computer processing speed depending upon ……….
      (a) System clock rate   (b) Bus width
      (c) Word size   (d) All of the above

4.   Video-conferencing may be:

      (a) Point to point   (b) Peer to peer
      (c) Multipoint   (d) Both (a) and (c)

5.   Which of the following is special protocol for e-mail ?
      (a) SMTP   (b) FTP
      (c) TCP/IP   (d) http

6.   Circles on floppy disk are known as :
      (a) Sectors   (b) Cylinders
      (c) Tracks   (d) None of the above

7. AMD's full name is :
   (a) Automated Micro-devices   (b) Advanced Micro-devices

   (c) Audio Media Devices   (d) Arithmetic Micro-devices

8 Which one is external command of MS DOS ?
   (a) Copy   (b) Date
   (c) Type   (d) Print

9. C programs are converted into machine language with the help of ………
   (a) Compiler   (b) Interpreter
   (c) Translator   (d) Loader

10. Which is not a valid floating constant ?
    (a) 4E-6F   (b) 4E 12
    (c) 1.334F   (d) 0.08E-4

11. Array subscripts in C always start at :
    (a) -1   (b) 0
    (c) 1   (d) any value

12. C provides a facility for user defined data type using :
    (a) Pointer
    (b) Function
    (c) Structure
    (d) Array

13. The default extension of MS Access data base file is …..
    (a) .acd   (b) .dbf
    (c) .msf   (d) .mdb

14. Pages available on web are written in :
    (a) Binary   (b) HTTP
    (c) HTML   (d) Java

15. Primary key does not allow
    (a) Unique value   (b) Duplicate Values
    (c) Zero value   (d) Both (b) and (c)

16.   The address of last column of worksheet is :
        (a) IU
        (b) IV
        (c) XZ
        (d) YZ

17.   How many alignments are there in paragraph formatting ?
        (a) 2   (b) 3
        (c) 4   (d) 1

18.   Which one is an impact printer?
        (a) Daisy wheel   (b) Laser
        (c) Inkjet   (d) Both (b) and (c)

19.   A CPU processing power is measured in :
        (a) IPS   (b) MIPS
        (c) CIPS   (d) MHz

20.   The full form of .bmp:
        (a) Buffer picture   (b) Boofer picture
        (c) Backup picture `   (d) Bitmap picture

2.   (i)   Write two differences between LAN and WAN.
        (ii)   What are utility softwares ?
        (iii)   What is the use of thesaurus in MS Word ?
        (iv)   Explain different methods of cell referencing in MS Excel.
        (v)   Write the name of different data types available in MS Access.
        (vi)   What are logical operators ? Explain.
        (vii)   Differentiate between Structure and Union.
        (viii)   Make a flowchart to find a factorial of any given number.
        (ix)   Differentiate between serial and parallel transmission.
        (x)   Name three peripheral devices and their uses.

Part-II

Attempt any two questions in all. Each question carries equal 10 marks.

Q.3   (a)   What are statistical and financial functions used in MS Excel ?

   (b)   Write short notes on :
   (i)   EISA/IS bus architecture
   (ii)   File and Folder Management.

Q.4   (a)   Explain the difference between call by reference and call by value in C Programming.

   (b)   What is Macro in MS Word? Write all the steps to create a Macro.

Q.5   (a)   What is computer network ? What communication interface devices are required For networking ?

   (b)   Write a program in C language to check whether a four digits number is palindrome or not. (for example : 2332 is reserved and result is 2332) Records and file

$$\boxed{\textbf{Computer Fundamentals}}$$

Unsolved Paper – 2010

Time Allowed : 2 Hours   *Max .Marks: 40*

Question Nos. 1 and 2 will be compulsory. **Q. No. 1 & 2 carries equal 10 marks.**

$$\boxed{\textbf{Part-I}}$$

Q. 1

1.   How many layers are there in OSI reference model?
      (a) 4 (Four   (b) 7 (Seven)
      (c) 8 (Eight)   (d) 10 (Ten)

2.   By word processing we understand:
      (a) Processing strings
      (b) Processing strings of number and special symbols
      (c) String manipulation
      (d) None of the above

3.   The access method used for magnetic tape is:
      (a) Direct   (b) Random
      (c) Sequential   (d) None of the above

4.   The difference between memory and storage is that memory is

      ………………..and storage is…………..

      (a) Temporary, permanent   (b) Floppy disk
      (c) Motherboard   (d) None of the above

5.   Which of the following holds the ROM, CPU, RAM and expansion cards?
      (a) Hard disk   (b) Floppy disk
      (c) Motherboard   (d) None of the above

6.   The language that the computer can understand and execute is called:
      (a) Machine   (b) Application software
      (c) System program   (d) None of the above

7.   Which of the following device can be used to directly input printed text?
     (a) OCR   (b) OMR
     (c) MICR   (d) None of the above

8   A floppy disk contains:
     (a) Circular tracks   (b) Sectors only
     (c) Both circular tracks and sectors (d) None of the above

9.   CD-ROM is a :
     (a) Semiconductor   (b) Memory Register
     (c) Magnetic memory   (d) None of the above

10. Actual execution of instruction in a computer takes place in;
     (a) ALU   (b) Control Unit
     (c) Storage unit   (d) None of the above

11. Which of the following is used as a primary storage devices?
     (a) Magnetic tape   (b) PROM
     (c) Floppy disk   (d) None of the above

12. Modem stands for:
     (a) A type of secondary memory
     (b) Modular- demodulator
     (c) Mainframe operating device memory
     (d) None of the above

13. Execution of two or more program by a single CPU is known is:
     (a) Multiprocessing   (b) Time sharing
     (c) Multiprogramming   (d) None of the above

14. Execution of two or more program by a single CPU is known as:
     (a) Star   (b) Ring
     (c) Fully connected mesh   (d) None of the above

15. The errors that can be pointed out by the complier are:
     (a) Syntel error   (b) Semantics errors
     (c) Logical errors   (d) None of the above

16. C is:
     (a) An assembly language

(b) A third generation high level language
(c) A machine language
(d) None of the above

17.   A translator is best described as:
       (a) An application software   (b) A system software
       (c) A hardware component   (d) None of the above

18.   The header file which include clrscr ( ) function is:
       (a) stdio.h   (b) Conio.h
       (c) math.h   (d) None of the above

19.   Cache memory is:
       (a) Slow speed memory   (b) High speed memory
       (c) Both A and B   (d) None of the above

20.   What is DBMS?
       (a) Database management system   (b) File system
       (c) Application system`   (d) None of the above

Answer key

1. (b)	2. (b)	3. (c)	4. (a)	5. (c)	6. (a)	7. (a)	8. (c)	9. (d)	10. (b)
11. (b)	12. (b)	13. (a)	14. (c)	15. (a)	16. (b)	17. (b)	18. (a)	19. (b)	20. (a)

Q.2   (i)   What is microprocessor?

       (ii)   What is flash memory? Why is it so called?

       (iii)   What is secondary storage? How it differs from a primary storage?

       (iv)   What is an array in C?

       (v)   What are the steps in a program development?

       (vi)   What is DVD? Write down its features and uses.

       (vii)   What is an input device? Name some commonly used input devices.

       (viii)   What is printer? What are the commonly used type of printer?

       (ix)   What is flowchart?

       (x)   What is time sharing system?

Part-II

Attempt any two questions in all. Each question carries equal 10 marks.

Q.3 (a) What is mail-merge? Write all the steps used to create a mail merge document.

(b) What is wizard? How is it different from template?

Q.4 What is LAN? What are its main objectives? What is the difference between star LAN and a Bus LAN?

Q.5 a) Write a program in C to find the factorial of a given number.

b) Define and distinguish between the following pairs of terms.

c) Records and file

d) Item and field

e) Files and database.

Computer Fundamental

Unsolved Paper – 2009

Time Allowed : 2 Hours   *Max. Marks : 40*
Question Nos. 1 and 2 will be compulsory. **Q. No. 1 & 2 carries equal 10 marks.**

Part-I

Q. 1
1.   Output which is made up of picture, sounds and video is called:
      (a) COM   (b) Hard Copy
      (c) Graphics   (d) Multimedia

2.   The intersection of a row and a column is called;
      (a) Data   (b) a field
      (c) a cell   (d) an equation

3.   A LASER printer is an example of a:
      (a) Dot matrix printer   (b) Continuous form printer
      (c) Chain printer   (d) Non impact printer

4.   Which of the following is not a valid data type in excel ?

      (a) Number   (b) Character
      (c) Label   (d) Data/Time

5.   How many layers are there in OSI references model?
      (a) 4   (b) 7
      (c) 8   (d) 10

6.   Superscript and subscript are found in:
      (a) Paragraph dialog box   (b) Font dialog box
      (c) Break dialog box   (d) None of the above

7.   Default tab movement is:
      (a) 0.5"   (b) 1"

(c) 1.5"   (d) 2.5"

8   To select a sentence, click anywhere on the sentence while holding the following
        key:
        (a) Ctrl   (b) Shift
        (c) Alt   (d) Esc

9.   Cache memory is:
        (a) Slow speed memory   (b) high speed memory
        (c) Non accessible memory   (d) None of the above

10.   A group of parallel lines that connects two or more devices inside the computer is:
        (a) Network   (b) Bus
        (c) Band   (d) None of the above

11.   The memory which is programmed at the time of manufacturing of a computer is:
        (a) RAM   (b) ROM
        (c) PROM`   (d) None of the above

12.   PCI means:
        (a) Personal computer internet
        (b) Peripheral component interconnect
        (c) Password Control identity
        (d) None of the above

13.   A program that converts a high level language program to machine :
        (a) Compiler   (b) Operating system
        (c) Editors   (d) None of the above

14.   In which topology are all the computer connected with a central computer:
        (a) Bus   (b) Star
        (c) Ring   (d) None of the above

15.   The feature that allows you to create documents according to you needs by
        presenting a step by   step procedure is called:
        (a) Templates   (b) Mail-Merge
        (c) Wizards   (d) Formats

16.   The expression k=4 + 2% 8 evaluates to:
        (a) −6   (b) 6

      (c) 4   (d) 2

17. The header file which includes getch ( ) function is:
    (a) stdio.in   (b) conio.h
    (c) math.h   (d) string.h

18. Pointers are used to:
    (a) Store address of variable   (b) Dynamic memory allocation
    (c) call by address mechanism   (d) All

19. Which operator in C has the highest priority?
    (a) + +   (b) %
    (c) +   (d) /

20. The default return data type in function definition is:
    (a) void   (b) int
    (c) float   (d) char

Answer Key

1. (d)	2. (d)	3. (c)	4. (c)	5. (b)	6. (b)	7. (a)	8. (a)	9. (b)	10. (b)
11. (b)	12. (b)	13. (a)	14. (b)	15. (c)	16. (b)	17. (b)	18. (d)	19. (a)	20. (a)

Q.2   (i)   What is the difference between hardware and software?

        (ii)   Write the differences between primary memory and secondary memory.

        (iii)   What is the difference between system software and application software.

        (iv)   Define the term "Computer Network"?

        (v)   What are different network topologies?

        (vi)   What is an array in C?

        (vii)   Explain the use of pointers in a program

        (viii) What is keyword?

        (ix)   What are the steps in a program development?

        (x)   Explain different data types available in MS access.

Part-II

Attempt any two questions in all. Each question carries equal 10 marks.

Q.3   (a)   How can you create charts is MS excel.

          (b)   What is cell reference? Explain its advantages.

Q.4   (a)   What is mail merge? Write is it the steps used to create a mail merge document?

          (b)   What is a wizard? How is it different from template?

Q.5   (a)   Write a program in C to find the factorial of a given number.

          (b)   Write a program in C whether a given number is an Armstrong number or not.

Computer Fundamentals

Unsolved Paper – 2008

Time Allowed : 2 Hours   *Max. Marks : 40*
Question Nos. 1 and 2 will be compulsory. **Q. No. 1 & 2 carries equal 10 marks.**

Part-I

Q. 1
1.   What does SD RAM mean?
        (a) Synchronous Dynamic RAM
        (b) Synchronous Digital RAM
        (c) Single Digit RAM
        (d) None of the above

2.   MMX technique is used in:
        (a) Network   (b) Processor
        (c) Memory   (d) None of the above

3.   The full form of AMD processor is:
        (a) Advance Micro Device
        (b) Arithmetic Micro Device
        (c) Advance Memory Device
        (d) None of the above

4.   How many sectors are therein 5.25 inch floppy?
        (a) 8   (b) 9
        (c) 10   (d) 12

5.   Time that head would take to reach on tract is:
        (a) Seak Time   (b) Search Time
        (c) Both of them   (d) None of them

6.   LASER printer is:
        (a) Non impact   (b) Impact
        (c) Both of them   (d) None of the above

7. SQL is a :
   (a) High level language
   (b) IV Generation Language
   (c) Machine language
   (d) Assembly language

8 NIC is a:
   (a) Software   (b) Hardware
   (c) Electronic Device   (d) B and C both

9. Full form of DCE:
   (a) Data Communication Equipment
   (b) Data Carrier Equipment
   (c) Data Connection Equipment
   (d) None of the above

10. CONFIG.SYS is a:
    (a) ASCII file   (b) Image file
    (c) Binary file   (d) None of the above

11. C : \> denotes
    (a) Sub directory   (b) Root directory
    (c) Main file   (d) Floppy disc drive

12. RTF means:
    (a) Real time Format
    (b) Rich time Format
    (c) Rich Text Format
    (d) Real Text Format

13. Maximum size of a file in a notepad can be:
    (a) 128 K   (b) 64 K
    (c) 64 M   (d) 32 K

14. MS Excel is used in:
    (a) Letter writing   (b) Chart making
    (c) Mail merge   (d) All of the above

15. What will be the output of?

```
Main ( )
{
        Print ( ) ;
}
```
(a) 0   (b) 1
(c) error   (d) none of the above

16.   What is the output?
```
Main ( )
        int i;
        i=5/2;
        print ("%d,i);
}
```
(a) 2.5   (b) 0
(c) 2   (d) none of the above

17.   The protocol that is used in internet :
        (a) TCP/IP   (b) CSMA
        (c) X-25   (d) None of the above

18.   Character size in C language is:
        (a) 2 byte   (b) 1 byte
        (c) 4 byte   (d) 8 byte

19.   Scanf ( ) function is specified in this header file:
        (a) stdio.h   (b) conio.h
        (c) math.h   (d) ctype.h

20.   To access a data member via structure variable which operator is to be used;
        (a) DOT operator   (b) Arrow operator
        (c) Addition operator   (d) None of the above

Answer Key

1. (a)	2. (b)	3. (a)	4. (d)	5. (a)	6. (a)	7. (b)	8. (b)	9. (a)	10. (a)
11. (a)	12. (c)	13. (b)	14. (b)	15. (d)	16. (c)	17. (a)	18. (b)	19. (a)	20. (a)

Q.2 (i) What are the disadvantages of assembly languages?

(ii) What do you mean by topology? Write the names of different topologies.

(iii) What is the differences between LAN and WAN?

(iv) Write the name of 5 internal commands and 5 external commands of DOS.

(v) Write the differences between GUI and CUI.

(vi) What is the differences between save and save as?

(vii) Write the advantages of Mail-Merge?

(viii) What is MODEM? How does it work?

(ix) What do you mean by storage classes in C ? write the types of storage classes (only names)

(x) What is a structure in C?

Part-II

Attempt any two questions in all. Each question carries equal 10 marks.

Q.3 (a) What is macro in MS word? What are its features? How can we insert macro in a document?

(b) What are the different types of charts is MS excel?

Q.4 (a) How does search engine work?

(b) What is a database? Write the advantages of database?

Q.5 (a) What is algorithm? Write the characteristics of the algorithm draw a flow chart of this problem? Find the roots of a quadratic equation for all cases that are: case:

(i) Equation is not a quadratic i.e. equations linear.

(ii) Roots are real and equal.

(iii) Roots are real and distinct.

(iv) Roots are imaginary.

Computer Fundamentals

Unsolved Paper – 2007

Time Allowed : 2 Hours   *Max. Marks : 40*
Question Nos. 1 and 2 will be compulsory. **Q. No. 1 & 2 carries equal 10 marks.**

Part-I

Q. 1

1.   The process of transferring operating system from secondary memory to primary memory is called:
     (a) Booting   (b) Loading
     (c) Transferring   (d) Downloading

2.   Which card is necessary to connect a monitor to computer?
     (a) Disk controller card   (b) Display adapter card
     (c) Monitor card   (d) Connection card

3.   What does 'Bug" indicate in computer terminology?
     (a) Worm   (b) Virus
     (c) Errors   (d) Mistakes

4.   Data on CD's are read and written with the help of:

     (a) Laser beam   (b) Infrared
     (c) Ordinary beam   (d) Ultra violet

5.   DRAM stands for :
     (a) Dynamic RAM   (b) Digital RAM
     (c) Duplicate RAM   (d) Disaster RAM

6.   How many domain categories are used?
     (a) 3   (b) 8
     (c) 5   (d) 16

7.   Gateways connect:
     (a) Two dissimilar LANs   (b) Two dissimilar WANs
     (c) Two similar LANs   (d) Two similar WANs

8   The process of converting analog signal to digital signal is called:
        (a) Modulation   (b) Demodulation
        (c) Protocol   (d) Modem

9.   What is spread sheet?
        (a) Operating system   (b) Application software
        (c) System software   (d) Complier

10.   Which one out of following is not a search engine?
        (a) Yahoo   (b) Google
        (c) Lycos   (d) Internet Explorer

11.   WAIS stands for:
        (a) Wide area information services   (b) Wide area intelligence system
        (c) Wide area information system   (d) None

12.   C is a :
        (a) Low level language   (b) High level language
        (c) Middle level language   (d) None

13.   C supports:
        (a) Homogenous array   (b) Heterogeneous array
        (c) Common array   (d) None

14.   Which one is not a feature of DBMS?
        (a) Data integration   (b) Data Independence
        (c) Data redundancy   (d) Data Abstraction

15.   Which one is not on input function in C?
        (a) Gets   (b) scanf
        (c) Getch   (d) puts

16.   Thesaurus are not used for:
        (a) Synonyms   (b) Antonyms
        (c) Grammar Checking   (d) None

17.   How may documents are created in mail-merge?
        (a) One   (b) Two
        (c) Three   (d) Four

18.   In excel, cell references can be:

(a) Absolute   (b) Relative
(c) Mixed   (d) All

19.   Which file is not a header file?
      (a) Stdio   (b) Conio
      (c) String   (d) out

20.   Pointers are used to:
      (a)   Store address of variable   (b)   Dynamic memory allocation
      (c)   Call by address mechanism   (d)   All

Answer Key

1. (a)	2. (b)	3. (c)	4. (a)	5. (a)	6. (b)	7. (d)	8. (b)	9. (b)	10. (d)
11. (c)	12. (b)	13. (a)	14. (c)	15. (d)	16. (c)	17. (b)	18. (d)	19. (d)	20. (d)

Q.2   (i)   Write the syntax of disk comp command in DOS.
      (ii)   What is control panel?
      (iii)   Which utility is used for the purpose of disk checking in windows?
      (iv)   What is booting process?
      (v)   What is recursion in C?
      (vi)   What is call by address parameter passing, mechanism?
      (vii)   What for find and replace is used in word?
      (viii) What is function in C?
      (ix)   Any two features of access.
      (x)   What is a browser?

Part-II

Attempt any two questions in all. Each question carries equal 10 marks.

Q.3   (a) Explain process of mail merge in Ms Word?

(b) What are mathematical functions used in Excel?

Q.4   (a) Write steps to create a report in MS access.

(b) Write steps to create a pie chart in excel.

Q.5   Write a program is C to compute net salary of an employee. Program should read basic salary. Take necessary assumptions for HRA, DA, PF, 10.

Computer Fundamentals

Unsolved Paper – 2006

Time Allowed : 2 Hours   **Max. Marks : 40**
Question Nos. 1 and 2 will be compulsory. **Q. No. 1 & 2 carries equal 10 marks.**

Part-I

Q. 1
1.   Which integrated circuit is known as brain of a computer?
      (a) Mother board   (b) Micro Processor
      (c) Memory   (d) None of the above

2.   A device that receives analog signals and converts them into digital data is known
      is:
      (a) Modulator   (b) Demodulator
      (c) Multiplexor   (d) None of the above

3.   A temporary storage area attached to the CPU is known as:
      (a) Chip   (b) Buffer
      (c) Register   (d) None of the above

4.   Information can be accessed faster from which of the following?

      (a) Hard disk   (b) Magnetic Tape
      (c) Floppy Disk   (d) Compact Disk

5.   The memory which is programmed at the time of manufacturing of a computer is:
      (a) RAM   (b) ROM
      (c) DRAM   (d) None of the above

6.   RAM chip was invented by:
      (a) Intel   (b) Motorola
      (c) IBM   (d) Apple

7.   Microprocessor is placed on:
      (a) Memory   (b) Network interface card
      (c) Motherboard   (d) None of the above

8 Cyrix makes:
  (a) Monitor   (b) Microprocessor
  (c) Printer   (d) None of the above

9. PCI means:
  (a) Personal computer internet
  (b) Password control information
  (c) Peripheral component interconnect
  (d) None of the above

10. Main input device for text input is:
  (a) Mouse   (b) Scanner
  (c) Light pen   (d) Key board

11. Operating system uses ………..to locate files on disk.
  (a) Data bus   (b) Screen table
  (c) File Allocation Table   (d) None of the above

12. Unix is a :
  (a) Single processing system
  (b) Multi processing system
  (c) Single user system
  (d) All of the above

13. To access web……..program is essential :
  (a) Modems   (b) Utility
  (c) Browser   (d) Boot

14. A program that used columns and rows to display number and text is known is:
  (a) Utilities   (b) Spreadsheet
  (c) Database system   (d) All of the above

15. C prograrmme are converted into machine language with the help of:
  (a) An interpreter   (b) A compiler
  (c) Database System   (d) None of the above

16. The expression $X = 4 + 2 \% 8$ evaluates to :
  (a) -6 (b) 6
  (c) 4   (d) none of the above

17.   A do…………. While loop is useful when we want that the statement within the
       loop must be   executed :
       (a) only once   (b) More than once
       (c) At least once   (d) None of the above

18.   What will happen if you put too few elements in an array when you initialize it:
       (a) Nothing
       (b) Possible system malfunction
       (c) Error message from the compiler
       (d) Unused element will be filled with o's or garbage

19.   What is a preprocessor directive :
       (a) A message from compiler to the programme
       (b) A message from complier to the linker
       (c) A message from programmer to the preprocessor
       (d) A message from programme to the microprocessor

20.   The real constant in C an be expressed in which of the following forms:
       (a)   Fractional form only
       (b)   Exponential from only
       (c)   ASCII from only
       (d)   Both fraction and exponential forms

Answer Key

1. (b)	2. (b)	3. (c)	4. (a)	5. (b)	6. (a)	7. (c)	8. (b)	9. (c)	10. (d)
11. (c)	12. (b)	13. (c)	14. (b)	15. (b)	16. (b)	17. (c)	18. (c)	19. (d)	20. (d)

Q.2   (i)   Write the syntax of copy command in DOS.

       (ii)   How is new program added in Windows?

       (iii)   How folders and files are searched in windows?

       (iv)   What do you understand by clipboard?

       (v)   What is the merge center facility in Excel?

       (vi)   Write the names of data types used in Ms-Access.

(vii)   What is TCP IP?

(viii) What is header file in C?

(ix)   Convert the following 'for' loop structure into the 'do……..

        While' loop structure:

        For (i=0; i<10;i++)

        {

        Printf("%d \n", i);

        }

(x)   What are the advantages of function of C?

Part-II

Attempt any two questions in all. Each question carries equal 10 marks

Q.3   Explain the use of options available in "Paragraph formatting" dialog box.

Q.4   (a) What is cell reference? Explain its advantages?

        (b) How database tables are created by using "design view" in MS-Access?

Q.5   If a four digit number is input through the keyboard, write a program in C to obtain the sum of the first and last digit of this number.

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Notes

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