

Biyani's Think Tank

Concept based notes

Computer Fundamentals

BCA Part-I

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Preface

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.

This book covers basic concepts related to the microbial understandings about diversity, structure, economic aspects, bacterial and viral reproduction etc.

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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CHAPTER-1

Computer Fundamentals

Q.1 Write Short Keys for following Commands.

Ans.: 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
Overtyping	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 + I	Display the Format Cells dialog box.
Ctrl + T	Show, or hide, the Standard toolbar.

Q.2 Write Keywords of C Language.

Ans.:

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

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 single 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
```

For more detail: - <http://www.gurukpo.com>


```

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 performed 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 compare 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.

$6.5 \leq 25$ 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 :

$$!(x \geq y)$$

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.

$$\text{var oper} = \text{exp};$$

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 :

$$x += 1 \text{ is same as } x = x + 1$$

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 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 :

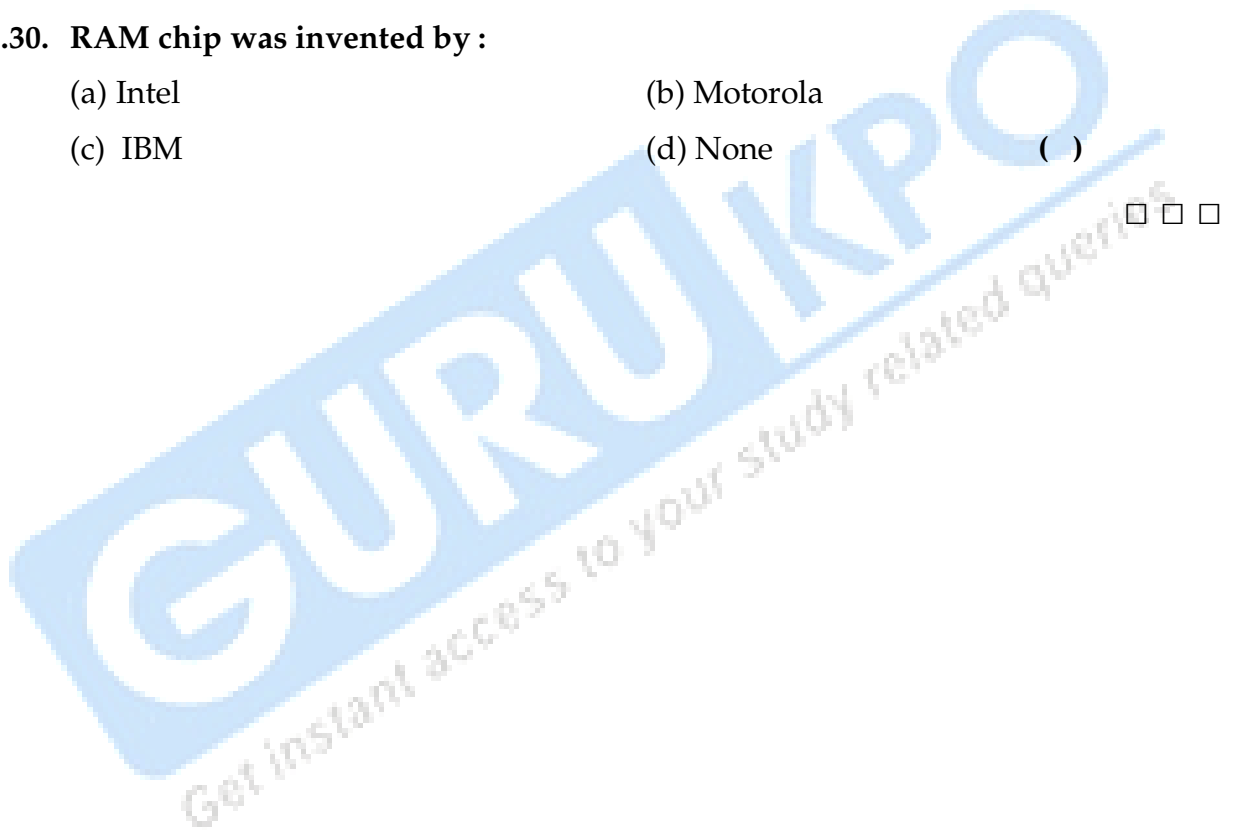
- (a) IPS
- (b) CIPS
- (c) MIPS
- (d) Nano Seconds ()

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 ()



CHAPTER-3

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 Boot 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) Trackpad
(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. TCP/IP 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-ROM (d) CMOS (d)
- Q.53. Which one is not a multitasking operating system :**
- (a) MS-DOS (b) Windows
(c) LINUX (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
- ()**

□ □ □

CHAPTER-4

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.

□ □ □

Operating System - DOS

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

Ans.: An operating system provides a user interface, through which a user interacts with a computer. It 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 a 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 deleted. For example : MD, CD, TIME, DATE, COPY, COPY 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 command to make a new directory or sub directory.

Syntax : e:1>MD DIRECTORY NAME ↔

Example : MD STUDENT ↔

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

Syntax : C:\> CD Directory name ↔

Example : > CD Student ↔

Exit to Directory :

CD... - The command moves 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 'ΔZ' 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 : C:\> 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

- Make a file named Tourist and type names of any three tourist place in Jaipur directory.
- Make a file named Tourist I and type names of any one tourist place in Chandigarh directory.
- Make file named RedFort.LTxt and Chandnichowk.Txt. in Delhi directory (Type same text in these files).
- Copy Redfort Txt in Sikar directory.
- Rename Sikar directory as New Delhi.
- Remove Patiala directory.
- Delete file name Redfort.Txt.

□ □ □