The following PROFESSIONAL LETTER in proper form.

Dr. P. Somasundaram, Ph.D.
Bio-Technologist.

Telephone No 2443452
53, Kuppiah St.
West Mambalam
Chennai 600 033

3rd Aug. 1998.

The Secretary to Govt.,
Agri. Department,
Government of Tamil Nadu,
Chennai 600 009

Sir,

I am a retd. Prof. of Bio-Technology. I was previously the Head of Bio-Technology Dept. in Anna University, Chennai. I had written many research papers published in many National and International journals.

I wish to inform you that I have developed a new technique for getting (yield) from different varieties of Coconut trees within a very short period. The quantity and quality of yield are also found to be higher. I request you to visit my modern farm on a convenient day this you may adopt in your schemes after due consideration.

Y.f.

(P. SOMASUNDARAM)

PROFESSIONAL LETTER.

A. PARTHIBHAN, M.E,
Contractor.

Telephone: 6264125
242, Ganga colony, Avc.
Anna Nagar (West)
Chennai. 600 101.

2nd June 2003.

Thiru C. Gopalan,
20, Mariyamman koil St,
Pallavaram,
Chennai. 600 043.

D/s.,

In accordance w./agreement dated / 2nd Jan. 2003, executed by us, I have taken up/work of construction of yr. house at Pallavaram. you wl. appreciate tt. I have bn. prompt in executing / work to yr. satisfaction.

When the work is in progress, you have stopped further payment. This is quite against / terms of the agreement. My repeated requested for payment have bs proves to be in vain.

If you fail to ⓧ payment there will be no alternative for me except to stop/work and claim damages provided f. in the agreement without any further correspondence with you.

ⓧ pay the

Yours ffy.,

(A. PARTHIBHAN)

3.(d). OFFICIAL LETTER –LAY OUT
(ONE AUTHORITY TO ANOTHER)

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1. **Name of the Office**
2. **'From' Name & Address of the Authority (Sender) on the Left side.**
3. **'To' Address of the authority (Receiver) on the Right side.**
4. **Letter Number and date.**
5. **Salutation**
6. **Subject**
7. **Reference.**
8. **Body of the Official Letter.**
9. **Complementary Close.**
10. **Designation of the Official.**

MODEL

OFFICIAL LETTER
(One authority to another authority)

CHINGLEPUT MUNICIPALITY
///

From	)(	To
//	)(	
Thiru. R.Dhanasekarn, M.A.,	)(	Dr. K.Madhavan, M.Sc.,(Agri) Ph.D.
Commissioner,	)(	5, Adams Road,
Chingleput Municipality,	)(	Chingleput- 603 001.,
Chingleput 603 003	)(	
	)(	

- -

//

Letter No.344/02-6, M.E.P., Dated the 11th September 2002

//

Sir,

//

Sub: Malaria Programme - Destruction of wild growth around municipal area.

//

Ref: (1) From the Director of Public Health, letter No. 554/M 02-6, dated the 06th August 2002

//

(2) Your letter dated the 09th August 2002

//

With reference to your letter second cited, I am to state that the Director of public Health hask suggested that wild growth of plants breeding mosquitoes may be destroyed.

//

2. Insturctions have been issued to the Malaria Eradication party not to disturb the herb arrowroot. However, instructions have been issued to spray insecticides over the plant to protect the plant and to present the possibility of breeding.

//

Yours faithfully,

////

Commissioner.

Kumbakozam Municipality

From
Thiru M. Vasan, M.A.,
Commissioner,
Kumbakanam Munici-
pality,
Kumbakonam 612001.

To
The Managing Director,
Cholan Roadways
Corporation,
Kumbakonam
612001.

Letter No. 3210/A/90, dt. the 12th Dec. 90.

Sir,

Sub: Mahamagam festivals - Bus Stand - Tempprarily shifting of - Reg.

Ref: Your letter No. 12130/Rc/01/90, dt. 19th Dec. 1990

I acknowledge receipt of your letter about flying of special buses from various buses from various places (x) during the Mahamagam festival ~~time~~

2. In this connection, I am to inform you that, as was done last occasion during the ~~year~~, arrangements have been ~~made~~ to operate all the bus services ~~from~~ the vacant near grounds the entry points of the town. The arrange-ment will be effect of about ten days from 20th Feb. 1991 to ensure smooth flow to traffic.

Yours bfly.,

Commissioner.

(x) to Kumbakonam

Type the following 'Official letter' in proper form:-

caps // Office of the Chief Engineer (Irrigation)

From	To
Thiru. S. Venkatesan, B.E.,	The Secy. to Govt.,
Chief Engineer (Irrigation),	P. W. D.,
chennai ~~Madras~~ - 600 008. sl	F. S. G.
	Chennai - 600 009.

Lr. No. S4/47307/84-5, dt. / 4th Sep. 1984.

Sir,

Sub: Irrgn. Research - upgrading of [Research / Irrigation] Station, Poondi - Proposals - regarding.

Ref: This Dept's. Lr. No. P3/47307/84-5, dated the 10th Mar. 1984.

---

2. In the context (the / of) Celebration poondi of the Silver Jubilee of the Irrigation Research Station, ~~Red~~ Hills, my proposals assumes special importance.

above 3. Early orders on my ~~about~~ proposals are, &c, solicited.

1. I am to draw attention of Govt. sl to my proposal/s contained in / refe. cited slet. for ~~upgrading~~ the irrigation Research Stn., u.c poondi into an Institute of Hydraulics and = Hydrology.

Yours faithfully,

Chf. Engr. (Irrigation)

Type the following official letter in proper;

KANCHEEPURAM MUNICIPALITY

From	To
mottuik Thiruh S. Sundari, M.A. Commissioner, Kancheepuram Munpty., Kancheepuram.	Thirumathy. A. Vidya, 9 Karuneegar st., Chinna Kancheepuram.

Rc. No. 322/Buldgs/90, dated/1st June 1990.

Sir,

Ref: your Building Plan application No. 444 dated/10th April 1990.

Sub: Buldg. Plan - approval - reg. U.C.

----

w.r. to yr. Building plan application cited, to state that I am the Dir. of Town Planing, kpm. has stated th! the site you have purchased for constrn. of a house is reserved for putting up a Govt. Hospital and ∴ Permission will not be granted to ~~construct~~ the building proposed (you) by)

2. In the O.S, I am returning yr. buildg. plan application along with its enclosures. sol I am al~~ready~~ returning here with the such U.C Village map and other enclosures such as copy of documents etc. (by you) sent.

L faithfully yours ~~sincerely~~

Commr.

Corporation of Madras caps

From
Thiru N. Ramaswami, B.A;
Public Relations Officer,
Corporation of Madras,
Madras 600 003

To
The Editor,
"The Hindu"
Madras
600002.

Letter No. 11151/Pc/91, dt. the 4th Feb – 1991.

Sir,

Sub: Civic problems –
Attending to –
Regarding.

Ref: Letter of Thiru C.S. Rao which appeared in the issue dated 4th Jany. 1991 of your daily.

I am directed to inform you that both the points raised in the concerned Circle officer and his report has been obtained.

2. In his report, the Circle Officer has stated that the road work at Kuppam beach has been included in the works to be undertaken during 1991-92.

He also states that the defects in the street lights in the area have been rectified since

Yours Obly.,
Public Relations Officer

Director of School Education // caps.

From

Selvi. Ilakkiya, M.Sc. B.Ed.,
Director of School Edn.,
Chennai. 600 006

TO

The Secy. to Govt.
Edn. Dept.,
Chennai. 600 006

Lr. Rc. No. 130/Audit-4/82, dt. 24th Oct. 1982.

Sir,

Sub: Edn. Dept. – Audit objections pending for over seven months – clearance – reg.

Ref: Govt. Memo. No. 224/6-HS/82-4 Edn., dated 23rd July 1982.

---

w.r.t. the Govt. memorandum cited, I have to state that departmental officers concerned have already been addressed in this matter and their replies are still awaited. They have also been specially reminded in this regard.

I shall submit my further report to government on receipt of the reply from them.

Yours faithfully,

Dir. of Schl. Edn.

4. GOVERNMENT ORDER- LAY-OUT

GOVERNMENT ORDER

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11(……………………….)
12………………….
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15………………………..
16……………….
17……………….

1. Name of the Government
2. The word 'Abstract'
3. Content of the Abstract
4. Name of the Department
5. G.O.Ms. Number
6. Date of the Government Order
7. The word 'Read the following'
8. The Content (G.O. Ms. No. Department and date) of 'Read the following'.
9. ORDER
10. Body of the Order
11. 'By order of the Governor' within the bracket.
12. Name of the 'Secretary to Government' in Capitals
13. The word 'Secretary to government'
14. The word 'To' and To Address
15. 'Copy to……….'
16. Forwarded By order
17. Section Officer.

MODEL

GOVERNMENT ORDER

GOVERNMENT OF TAMIL NADU

//

Abstract

//

Indian Medicine - Code of Medical Ethics - Addition to warning notice - Approved.

- -

//

Health and Family Planning Department

//

G.O.Ms. No.1190 Dated the 15th May 1974

//

Read the following:

//

G.O. Ms. No. 5622, Health, dated the 29th July 1973.

//

ORDER:

//

The Government direct that the following additions be made to Part III - warning notice of the code of Medical Ethics approved in G.O. Read above:

//

(i) There is no objection to advertisements of the firm of manufacture or of their reputed medicinal preparations.

//

(ii) The photographs of the firms may be advertised bay not the photographs of patients or clients or the Registered Medical practitioners.

//

(By order of the Governor)

//

P.G.MURTHI,
Secretary to Government.

//

To
The Director of Indian Medicine,Madras 600 006.

//

Copy to
All Collectors

//

Forwarded / By order

////

Section Officer

GOVERNMENT OF TAMIL NADU

Abstract.

Civil Supply – Tanjavur District – Special Staff – Sanctioned.

Revenue Dept.

G.O. Ms. No. 338 Dated the 15th Oct. 2001

Read the following:-

G.O. Ms. No. 298, Revenue, dt. the 25 July 2001.

ORDER:

In the Govt. order cited, six temporary post of Tahsildars were sanctioned for two months for supervising the procurement of Kuruvai paddy in Tanjavur Dt. Now, Govt. in the U.C food Dept. have decided to continue procurement operations further.

2. Govt. therefore, sanction the Continuance of the above posts upto the 31st Dec. 2001. or till the necessity ceases which ever is earlier.

(By order of the Governor)

To
The Collr. Tanjavur 620 001

D. PRABHU
Jt. Secy. to Govt.

Forwarded /by order

GOVERNMENT ORDER OF TAMIL NADU &

Abstract.

1982

Asian Games 1982 – Holiday for the Govt. offices in certain places – orders – issued.

Public Dept.

G.O. Ms. No. 1008 Dated 1& 10th Nov. 1982.

Read the following.

From the Director of Sports and Youth Services, Madras letter No. 248/V3/82, dated the 7th October 1982.

ORDER:

The Govt. declare Friday, the 3rd Decr. 1982, as a local Holiday for Govt. & offices in Madras City and also Chengalpattu and Coimbatore Districts to enable the Government Servants to view on (4) television (5) Asian (2) Games (3) this

2. In respect of Coimbatore Dt., the Holiday is declared subject to the availability of television transmitter facilities

(By order of the Governor)

K. Diraviam,
Chief Secy. to Govt.

To
All Heads of Depts.
Forwarded / By Order. S.O.

Govt. of Tamil Nadu All Caps.

Abstract

SCHOOLS – Spl. Grade to Teachers – orders – Issued.

Education Dept.

G.O. Ms. [2329] [No.] Dated the 11th Aug. 2001

Read the following:

G.O. Ms. No. 1950, Finance, dated the 5th July 2001.

ORDER:

It has been represented to Govt. that the teachers in schools may be awarded Spl. Grade on completion of twenty years of service in their post. 2. The Govt. have carefully examined the above request and direct that Higher Grade teachers and Secondary Grade Teachers in all schools under all kinds of management be awarded Spl. Grade on completion of twenty years of satisfactory service in the same category.

(By order of / Governor)

C. RAMADAS,
Commissioner & Secy to Govt.

To
The Director of School Education,
Madras 600 006.

: Type the following GOVERNMENT ORDER in proper form.

All Caps / Government of Tamil Nadu.

Abstract.

Schools - Hr. Sec. Schools - Science equipment - Purchase of - Sanctioned.

Education Dept.

G.O.Ms. No 1715 Dated / 6th Oct. 1997

Read the follg:

Fr the Director of School Education, Lr No. 4218/H8/97, dated the 20th Jan 1977.

ORDER:-

The Director of School Education has sent proposals for / purchase of Science equipment for the 45 Higher Secondary schools upgraded during 1995 - / at the rate of Rs16,000/- per school. // 2. The Government, after carefully examining / Director's proposals, / order sanction of a sum of Rs 12,00,000/- (Rupees twelve Lakhs only) for the above purpose. /1996 /x.P /Std.

(Paraphrase)

(By order of / Governor)

M.A.SHANKAR,
Secy to Govt.

To
The Director of School Education
Chennai 600 006.

Forwarded / By order

Section Officer

Type the following DEMI-OFFICIAL LETTER in proper form.

Government of Tamil Nadu / All caps.
Finance Dept.

K ALLAUDIN, I.A.S.,
Dy. Secy to Govt. -

Fort. St. George,
Chennai 600 009

D.O. Lr No 45/99-2 dated the 2nd Oct 1998

Dear Thiru Ramanujam

Sub: Meeting - Eleventh Finance.
No. Commission - Visit to Chennai -
Coverage of.

Ref: From the Secretary, Eleventh Finance Commission Lr No DA/EFC/98. dated the 11th Sep, 1998

- - - -

The Eleventh Finance Commn. has planned to visit Chennai in order to ascertain the (*) needs of the Govt. Here the meetings of the Commission are scheduled to take place on 1st and 2nd Nov. 1998 in the Secretariat, Chennai. / As the services of Reporters are req. for the Coverage of the meetings I am to request you to depute ~~at least~~ three shorthand / steno-reporters from your office for the purpose. / N.P

(*) financial

I am also to inform you that the usual honorarium will be paid to the Reporters.

Yours Sincerely
(K. ALLAUDIN)

To
Thiru K. Ramanujam, I.P.S
Spl. of Police
Special Branch.
Chennai. 600 004

Govt. of Tamil Nadu || Copy.

Abstract.

Education - Aided Schools - payment of House Rent Allowance to Teachers - Orders issued.

Education Department.

G.O Ms. No. 558 Dated the 8th April 2004.

Copy order:

The question of sanctioning HRA to the Aided school Teachers has been under consideration of the Govt. The Govt. have now decided to allow HRA to them, at the same rates applicable to those in local body schools. Accordingly, they direct that the Aided Schools be paid H.R.A. (Teachers in working)

2. This order takes effect from 1st April 2004 and will be in force upto 31st March 2004.

3. This order issues with the concurrence of the Finance Department. (Concurrence of the)

(By order of the Governor)

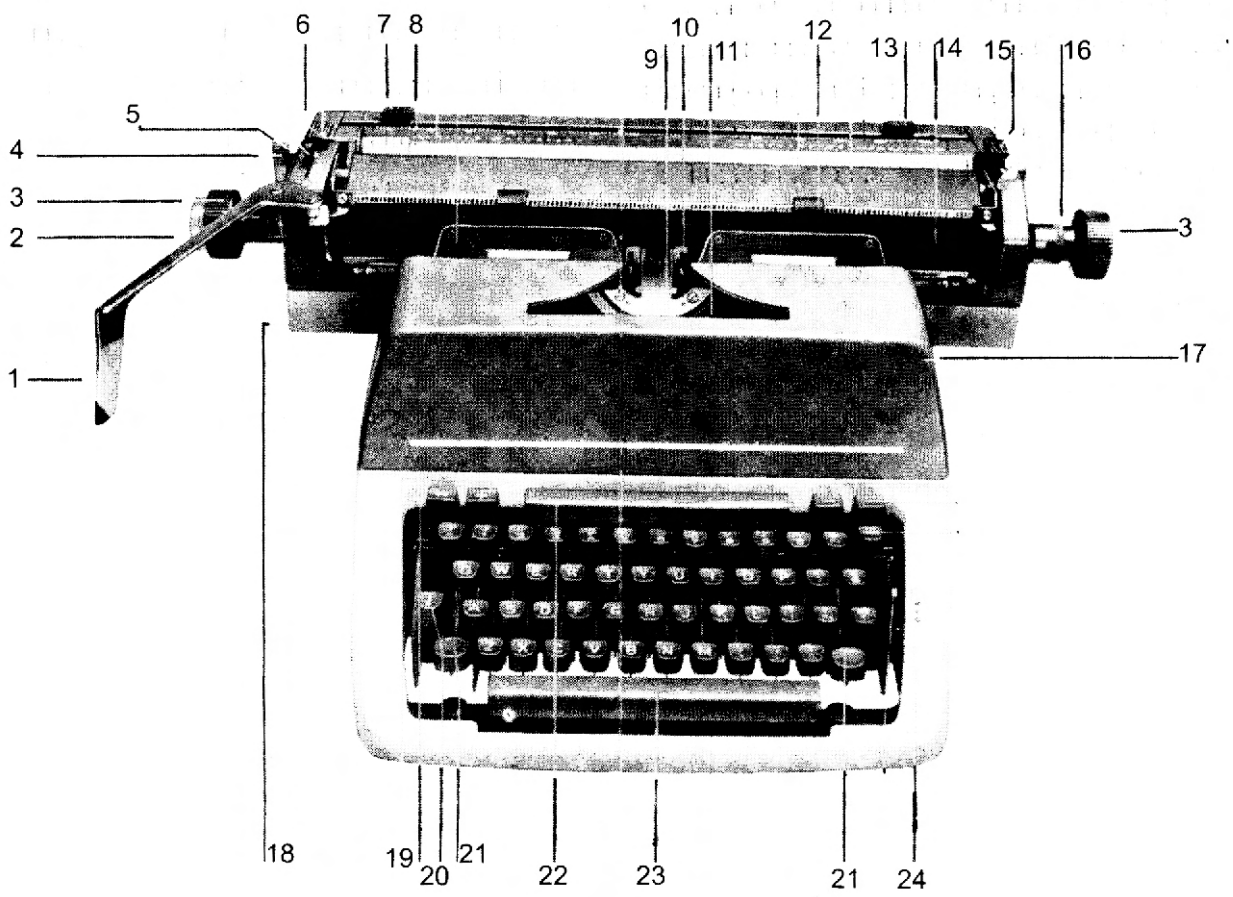
S. SRINIVASAN
Secy to Govt.

To
The Dr. of School Edn. Madras 600 006.
Copy to
Finance Department.
Forwarded/By order
S.O.

PART-C

I. MECHANISM

1. Typewriter and Its Parts



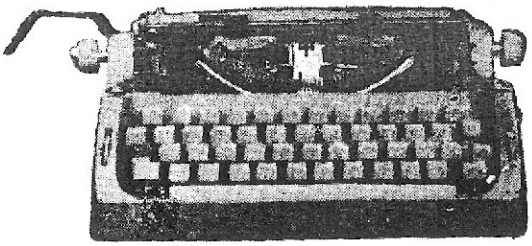
1. Handle / Line Space Lever
2. Plunger Knob
3. Thumb Wheel
4. Cylinder Release Lever
5. Line Space Lever
6. Carriage Release Lever Right
7. Left Hand Margin
8. Margin Scale
9. Type bar guide
10. Ribbon Carrier
11. Segment
12. Paper bail Roller
13. Right hand Margin
14. Cylinder (Platen Roller)
15. Carriage Release Roller Left
16. End of the Paper Indicator
17. Cowl Cover
18. Carriage
19. Margin Release Key
20. Shift Lock
21. Shift Key
22. Tabulator Bar
23. Space bar
24. Ribbon Colour Indicator

2. HISTORY OF THE TYPEWRITER :

The first typewriter was invented by Mr. HERRY MILL and was later developed by Sholes, Glidden, Soule and Yost. The first practical typewriter was however, introduced in 1873 and it was brought to India only in 1876.

Letters are type-written on the paper; hence this machine is called as typewriter. The typewriter is most commonly used and best of office machine. Typewriter is a device for writing with neater letters, for doing quicker and better work, for taking more copies and for reading the typed matter easily.
There are noiseless, electric and electronic typewriters also.

KINDS OF TYPEWRITERS



There are two kinds of Typewriters:
1. Standard Typewriter
2. Portable Typewriter

Standard Typewriters are most commonly used for office Purpose.
Portable Typewriters are used for camp purpose and it can be easily taken during travel.

ADVANTAGES OF TYPEWRITER

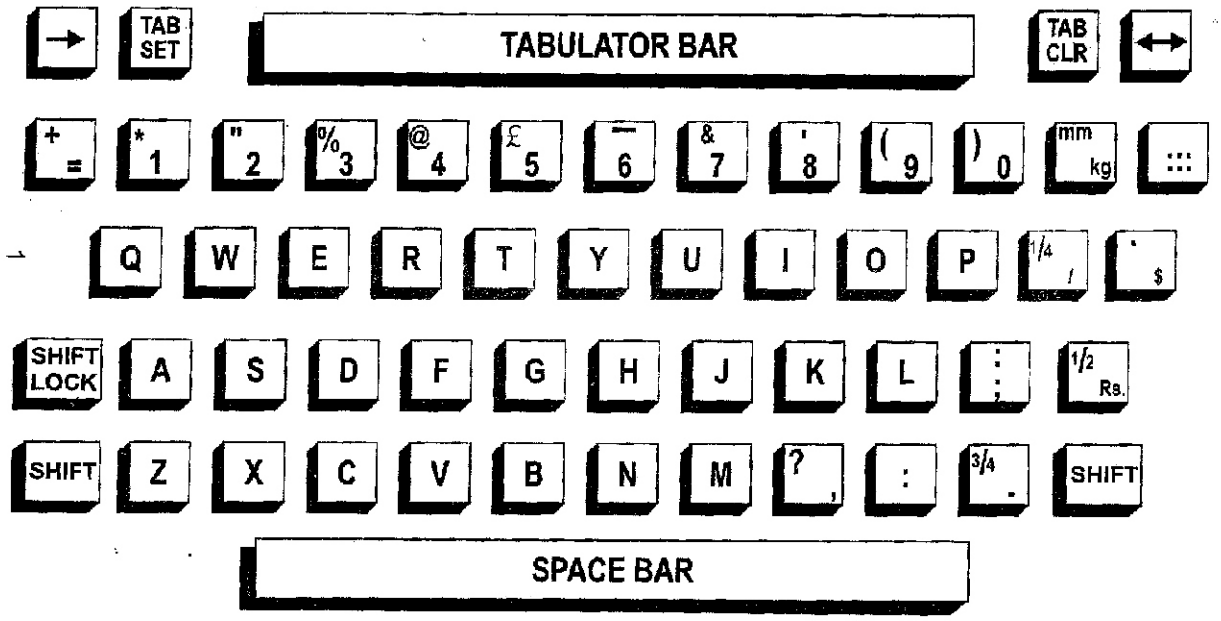
1. Neatness and accuracy .
2. Less strain.
3. Greater speed [less time or time is saved].
4. Economy in stationary.
5. More number of copies can be taken.

IDENTIFICATION OF TYPEWRITER

A Type writer can be identified by its make and serial number.
Question:
1. Who invented the typewriter? And when?
2. How many kinds of typewriter are there?
3. What is the advantages of typewriter?
4. How can a typewriter be identified?
5. What is the use of standard model and portable model?

We can divide the typewriter in 3 main parts;
(1) KEY BOARD (2) CARRIAGE (3) MACHINE

3. KEY BOARD



The front portion of the machine where all keys are placed is called the 'key board'. There are two kinds of key board :(1) Universal standard Key Board and (2) Ideal Key Board.

All the modern typewriters have only the Universal Standard Key Board. Ideal Key Board is not in use now.

The Universal Standard Key Board is not arranged in the alphabetical order or 'abcd' order.

Frequently occurring letters like “e,r,l”, are fixed in the middle of the key board to be operated by strong fingers.

According to the strength of the fingers, the other letters are arranged in the Key Board. So the Keys are not arranged in the alphabetical order.

There are 44 character keys in the Key Board, in all Typewriters. Each Key represents two letters (upper case and lower case characters)

There are 9 non- character Keys are also found in the Key Board. They are as follows :

1.Shift Keys	2.Shift lock	3.Margin Releaser
4.Back spacer	5.Tablulater	6. Ribbon position Indicator
7.Key releaser	8.Space Bar	9. Personal touch Indicator

When we operate the character Key, the carriage moves 1 degree towards left with making an impression.

When we operate non-character Key, the carriage moves 1 degree towards left but not making any impression.

Dead Key is a Key which gives an impression but not making the carriage to move. It is available only in Tamil type writer .

'N' and 'H' are called master Keys. These are used to check up the alignment.

'a' and ';' are called Guide Keys and the two little fingers are called Guide fingers. 'asdf' and ';lkj' are called Home Key.

NON- CHARACTER KEYS AND THEIR USES :

1. SHIFT KEYS: There are two shift keys and one shift lock on the Key Board. Two shift Keys are placed on the both side of the Key Board. Shift Key is used to type the upper case character occasionally but Improper uses of shift key causes Bad Alignment. The two shift keys are for the use of easy manipulation.

2. SHIFT LOCK: The shift lock is used to type the upper case character continuously and also to type headings, Boarders and under score in the display work. The shift lock Key can be released by using the shift Key.

3. MARGINAL RELEASER: This is used for typing beyond the set margins It is used to complete a word on the right side margin. It is also used on the left side for typing marginal notes paragraph numbers and etc.

4. BACK SPACER : when we operate the back spacer ,the carriage moves towards right by one degree by leaving blank space . this is used to fill up omissions and to make correction. To type combination letters etc.

5. TABULATOR: It consist of

(1) Tabulator Bar
(2) Tabulator Set Key
(3) Tabulator Clear Key

There are as many number of tabulator stops in the tabulator rack as there are degrees in the carriage scale.

The tabulator bar is used to bring the carriage to any particular position quickly towards left .
The tabulator bar is used to type tabular are columnar statements, specifications and indent paragraphs.(giving five spaces for paragraphs)

6. RIBBON POSIION INDICATOR : Otherwise called ribbon colour indicator or ribbon switch or bi-chrome device lever, is fixed at the right side of the key board.

The up and down movement of the ribbon is controlled by the ribbon position indicator.

7. KEY RELEASER: It is used for releasing the type bars when 'jam' occurs due to mishandling.

8. SPACE BAR: It is located at the bottom of the key board and operated by the right thumb. If we use the space bar the carriage moves 1 degree towards right without making impression (1 degree blank space). Also It is used for leaving blank space between words.

SHIFT SYSTEMS: There are two kinds of shift system:

(a) Segment Shift System. (b) Carriage Shift System.

QUESTIONS:

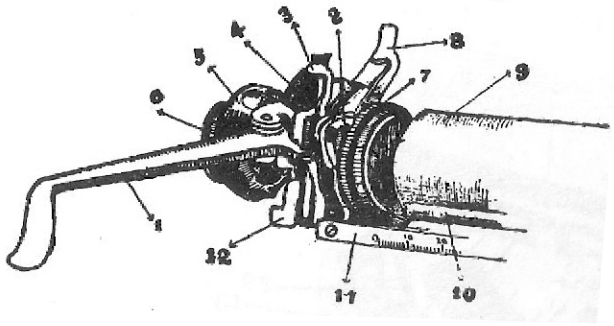
1. How many Non-character Keys in their Typewriter?.
2. How many character Keys in the standard key board?
3. What is meant by a Dead Key?
4. What are the Guide Keys and Home Keys ?
5. What are the Guide fingers?
6. What is the use of shift Keys and shift Lock?
7. What is the use of space Bar?
8. What is the use of Back Spacer?
9. How many kinds of shift system?
10. What is the use of margin Releaser?

4. CARRIAGE

CARRIAGE :

Carriage is an important part in a typewriter. The carriage can move in both the direction. Carriage moves towards left whenever the space Bar, Tabulator bar or carriage Releaser Lever is used.

Different sizes of carriage can be fitted to the Standard Typewriter.



Carriage and its parts

1. Line Space and Carriage Return Lever
2. Line Space Pawl
3. Line Space Knob
4. LineSpaceGauge (1,2,3)
5. Left Tumb Wheel
6. Variable Line Spacer
7. Cylinder Ratchet Wheel
8. Cylinder Ratchet Detent Release Lever
9. Cylinder otherwise called Planten
10. Paper Deflector
11. Frolnt Carriage Scale
12. Cylinder Lock

SIZES OF CARRIAGE:

1. Foolscap Size
80 degree to 100 degree

2. Draft Size
110 degree to 125 degree.

3. Brief Size
130 degree to 140 degree.

4. Police Size 180 degree.

5. Manifest Size 240 degree.

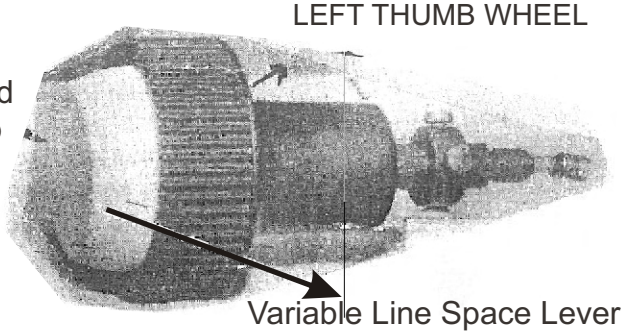
CYLINDER: It is also known as Platen. Cylinder is made of Rubber. The shape of the cylinder is round so as to get one impression at a time . It helps to feed the paper .

There are three kinds of Cylinders.

1. Soft Cylinder
2. Hard Cylinder
3. Medium Cylinder

The following points will prolong the life of the Cylinder:

1. By giving light touch.
2. By using backing sheet while typing.
3. No oil should be used for rubber parts. Use petrol or spirit and
4. Damaged or slippery cylinder is one of the causes for irregular line Spacing.
5. Punctuation marks should be typed gently in order to avoid injury to the Cylinder



THUMB WHEELS: Otherwise called as Cylinder Knobs. There are two thumb wheels / Cylinder knobs, each one on both the sides. It is used to insert and remove the paper from the cylinder. It is also used to rotate the Cylinder.

VARIABLE LINE SPACER :

1. To type on the ruled sheets.
2. To type Chemicals formula and Algebra sings.
3. To type component letter.
4. To Give fractional line space.

LINE SPACE LEVER: It is fitted on the left side of the carriage. It helps to return the carriage to the next writing line. So it is also called carriage return level

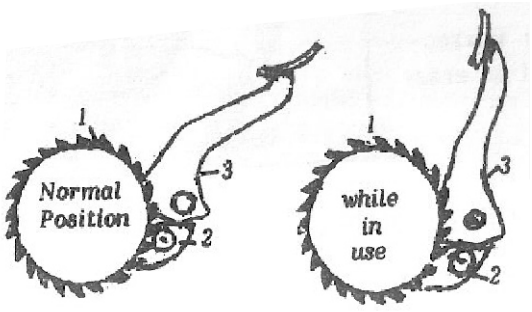
PAPER BAIL : It is fixed above the Cylinder and has two rollers.
It holds the paper firmly at the top. It prevents the paper from flying in the air. It helps to type up to the very bottom of the paper.

CARD HOLDERS: It helps to hold the paper. To type on cards, envelops and we can type at the top of the paper and also to the bottom edges of the paper. It is also used to draw vertical ruling.

CYLINDER RATCHET WHEEL : It is also known as line space ratchet wheel. It is a toothed wheel fixed at the left end of the Cylinder. It helps to regulate the line spaces (viz. single line space, one and half, two, two and half & 3. Etc).
Worn-out teeth of the Cylinder ratchet wheel is one of the causes for irregular line spacing.

DETENT ROLLER: It is a small steel roller pressing the tooth of the Cylinder. Cylinder rotates tooth by tooth to make space between lines. Worn-out detent roller

1. Cylinder Ratchet wheel
2. Detent Roller
3. Detent Release Lever



Is one of the causes for irregular line spacing.

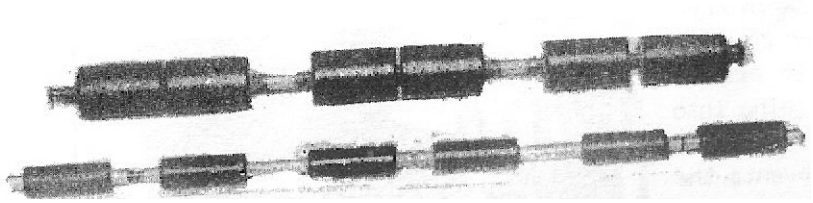
DETENT RELEASE LEVER: By using this lever we can type mathematical symbols and chemical formulae while the current page is being typed

LINE SPACE PAWL: It is acting on the Cylinder ratchet wheel. It is attached to the line space lever.

LINE SPACE GAUGE : It indicates single, double and treble line spacing. So, It is also called Line space Indicator.

LINE SPACE KNOB and also called LINE SPACE ADJUSTING LEVER or LINE SPACE REGULATOR. It acts on the line space gauge and controls the line spacing.

FEED ROLLERS:
There are 2 sets of feed Rollers under the Cylinder. These are made of Rubber or Cork. When these feed rollers are in close contact with the Cylinder, they help to hold the paper firmly.



MARGINAL STOPS: There are two marginal stops. The are on the Marginal rack and moved to the desired degree in the marginal scale.

Left Marginal Stop:
1. Control the left margin.
2. Control the movement of the carriage towards Right.
3. Defective left marginal stop causes irregular left margin.

Right Marginal Stop:
1. Control the right margin.
2. Control the movement of the carriage towards Right.
3. It causes the ringing of the bell and the bell warns that the line of typing is coming to an end.
4. It locks the key levers.

TYPEWRITER SCALES: There are four scales in the typewriter.
1. Marginal scale or Paper Table Scale
2. Carriage Scale or Paper Bail Scale
3. Line finder Scale or Alignment Scale
4. Front Scale or Line Space Adjusting Scale

PAPER TABLE: It protects the paper from the oil parts.

RUBBER FEET: There are four rubber feet under the Typewriter for the protection of the machine.

METHOD OF TYPING: Two types of typing methods :

1. Sight Method: More strain, more mistakes -- Not advisable
2. Blind Method: Without seeing the key-board typing the matter. It increases the speed - Advisable.

Typing with uniform touch and with equal interval between operation of character keys is called 'Rhythmic Touch'.

ERASER: The carriage should be brought to either end of the typewriter and correct the mistakes with an eraser, to avoid dust falling into the typewriter.

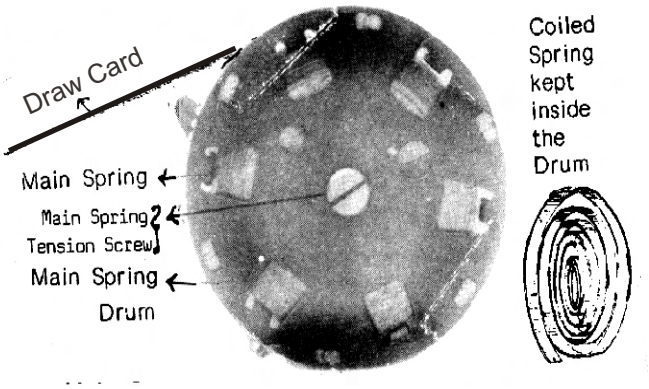
Questions:

1. Mention the various size of the carriage?
2. How many kinds of Cylinder?
3. How many scales are there in the typewriter?
4. How would you preserve the life of Cylinder?
5. Give the other name of the Thumb knobs and mention its uses?
6. What is the use of Line Space Adjusting Leaver?
7. What is the use of Card Holder?
8. How many marginal stops and what are the uses?
9. What is the use of Variable Line Spacer?
10. What is the use of Feed Roller?
11. How many Method of typing?
12. How to erase the mistake while typing?
13. How many rubber feet in the typewriter? Mention its uses?
14. What is the use of Cylinder Ratchet Wheel?
15. What is the use of Detent Roller?

Main Spring: Main Spring Drum (Back side)

5. MACHINE

MAIN SPRING DRUM:



It is located at the left back side of the Typewriter. In this drum there is mainspring with tension. This mainspring tension is other wise called Carriage Tension which is the most important of the Typewriter. The carriage moves from right to left due to this mainspring tension which is situated on the left side. In Urdu (language) Typewriters the mainspring is fixed in right side and so the carriage moves from left to right when we type. There is no mainspring in Electric Typewriters.

1. Too much main spring tension cause the jerky movement of the Carriage
2. Too low main spring tension cause the sluggish movement of the carriage.

There are other two main tensions in the Typewriter:

1. Key tension.
2. Touch Regulator tension.

DRAW CORD: It is also called as Draw Band or Draw Strap. One edge of the Draw Cord is hooked with the mainspring drum and the other edge is hooked with carriage end. Due to mainspring tension the connected draw cord pulls the carriage towards left. If the draw cord is cut off, the carriage will not move.

TYPE GUIDE or CENTRE GUIDE: It is also known as Common Centre Printing Point. It allows only one type bar to enter through and strike against the Cylinder while typing. It is cleaned with the Chamois Leather.

TYPE HEADS:

The following are the kinds of Type Heads/ Type faces:

1. Pica … 10 Letters per inch
2. Elite … 12 Letters per inch
3. Roman … 09 Letters per inch
4. Gothic
5. Italics.
6. These typefaces should be cleaned with Petrol.

RIBBON MOVEMENTS: There are three Ribbon Movements of the carriage.

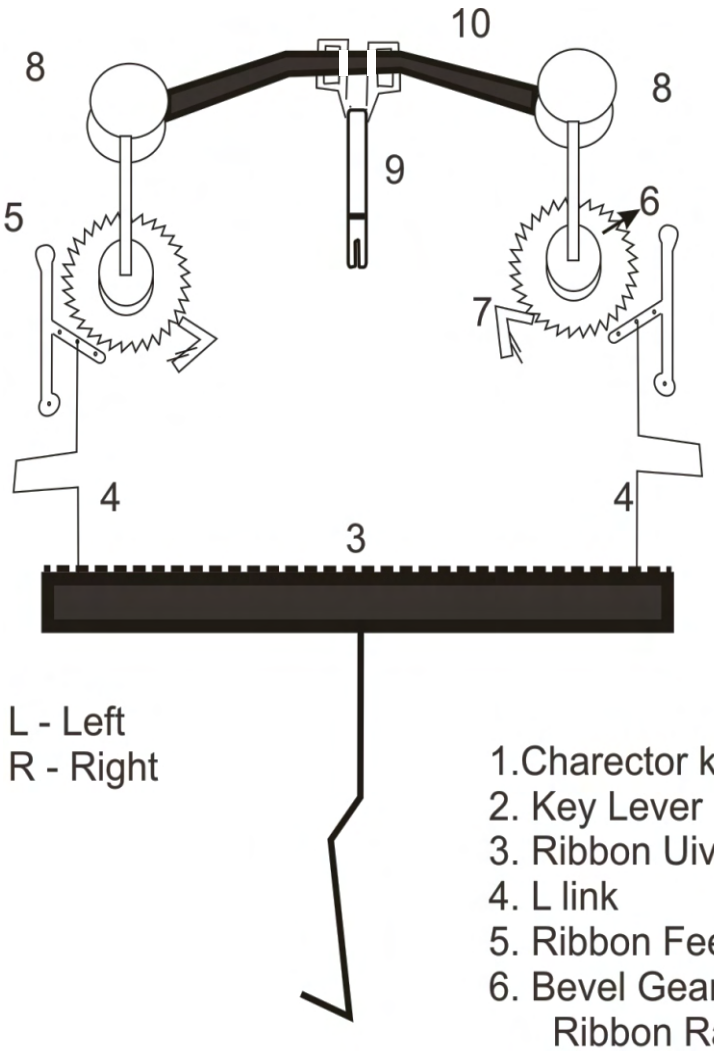
1.Up and down Movement
2.Lengthwise Movement
3.Automatic Reverse Movement

Up and down Movement is used to utilize the full Width of the Ribbon.

Lengthwise Movement is used to utilize the full length of the Ribbon.

Automatic Reverse Movement is used to utilize the Ribbon for many times.

RIBBON MOVEMENT OF THE CARRIAGE



RIBBON:

Ribbon take is made of cotton or silk, dipped in ink. It makes the impression visible on the paper.

There are two kinds of Ribbon:
1. Record Ribbon: It is used for ordinary purpose
2. Copying Ribbon: It is used for copying purpose

Double colour Ribbon is called 'Bi-chrome Ribbon'

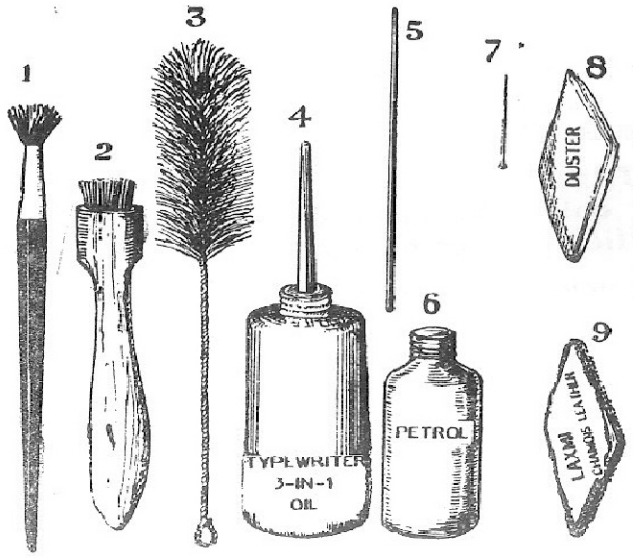
To preserve the Ribbon from moisture or from dryness the typewriter should be covered soon after the work is over. Normal length of the ribbon is 8 yards and ½ inch. Width.

Questions:

1. Where is the Mainspring drum Located?
2. What is the use of Mainspring?
3. What is meant by Draw Cord? Mention it's uses?
4. What is the use of Type guide?
5. Mention the kinds of Type faces/Type heads?
6. How many kinds of Ribbon?
7. Name the three movements of the Ribbon?
8. How may colour types of Ribbon?
9. Which is called Bi-colour Ribbon?
10. What is the other name of Type Guide?

6. CLEANING AND OILING

CLEANING MATERIALS :



1. Long handled Brush.
2. Type Cleaning Brush.
3. Wire Brush.
4. Oil Can
5. Touch Oiler
6. Petrol or spirit
7. Hat Pin or sharp pin
8. Duster Cloth
9. Chamois Leather or Polishing Cloth

1. Long Handled Brush is used to clean the outer parts (External Parts)of the Typewriter. (e.g. Carriage, Type bars, type segment and etc.)

2. Type Cleaning Brush is also known as Hard Brush. It is used to clean the type faces by dipping with petrol.

3. Wire Brush is used to clean the inner parts (Interior parts) such as key leavers.

4. Oil can is used for oiling the outer parts. Only Typewriter Oil or three-in-one oil is used for oiling the Typewriter.

5. Touch Oiler is used for oiling the interior parts (the frictional parts)- (like Ribbon gears, pinion wheel, escapement wheel, dogs and etc.)

6. Petrol or Spirit is used for cleaning the rubber parts (Cylinder, feed rolls, type faces, type segment and etc.)

7. Hat Pin or Sharp Pin is used to clean the dirt and dust which is filled in the slots (letters like a,e,o,u,d,g,r,q, and etc.)

8. Duster Cloth is used for cleaning the base board, metal cover and for wiping-out the excess of oil in the carriage way rods.

9. Chamois Leather or Polishing cloth is used to clean the nickel parts.

CARE TAKING OF TYPEWRITER:

1. Should clean the typewriter daily.
2. Should clean the typeface/type head fortnightly.
3. Should oil the typewriter monthly.
4. Overhauling Should be done once in a year.
5. Rubber parts, type faces should be cleaned with petrol.

UPKEEP AND MAINTENANCE:

1. Typewriter must be closed or covered when it is not in use.
2. It should be handled very carefully.
3. Hard touch must be avoided and light touch should be given

CARE SHOULD BE GIVEN WHILE PACKING:

1. Bring the carriage to the centre.
2. Two marginal stops should be brought to the centre (Close together)
3. Space bar must be tied with frame.
4. Shift Lock should be pressed
5. Cover the machine with metal cover or by good cloth.

7. ENVELOPE ADDRESSING

There are two methods of Envelope Addressing:

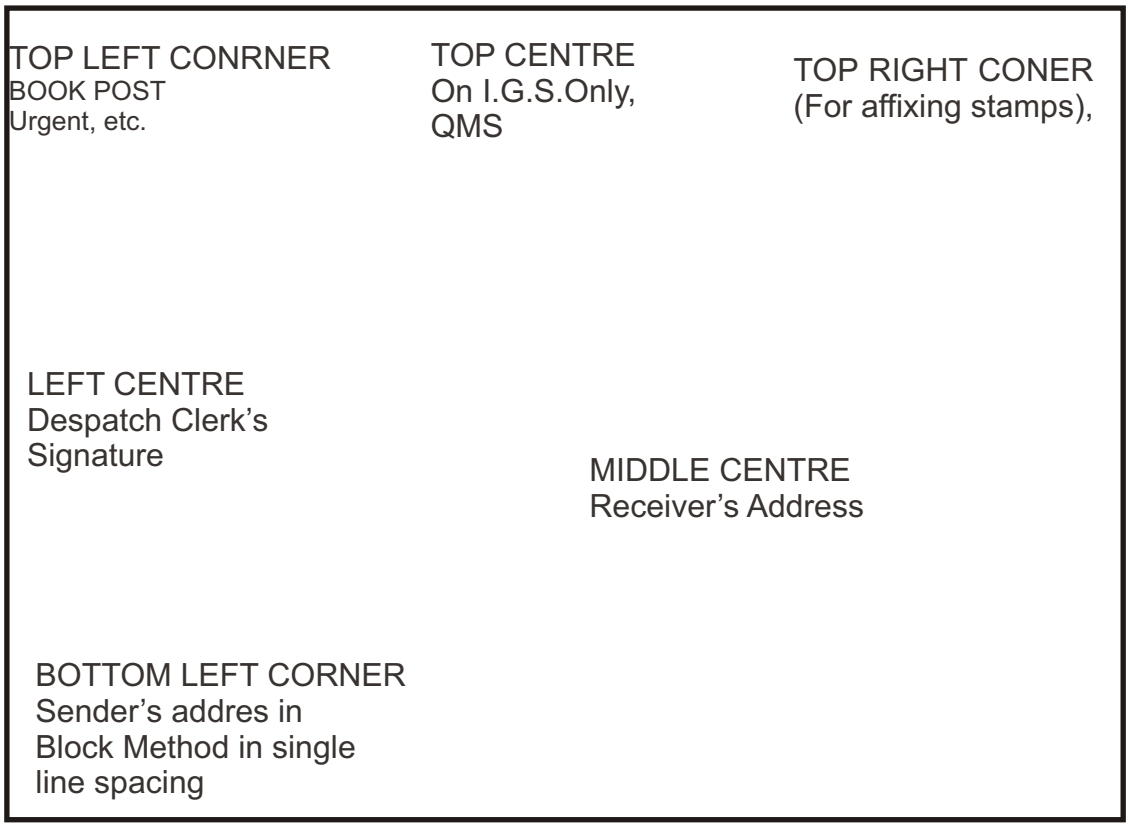
1. Block Method
2. Indent Method or Indentation Method

In Block Method of envelope addressing, all the lines of the receiver's address should be commenced from one and the same degree near the middle-centre of the envelope.

In Indent Method, the first line of the addressee's address is to be commenced near the middle centre of the envelope but the other lines should be commenced indenting or leaving five spaces after every one of the lines.

There are two types of envelopes:

1. Ordinary Envelopes or as Post Covers
2. Window envelope or Panel Envelope or Outlook Envelope.



ADVANTAGES:

1. Window envelopes generally used by Insurance Companies.

2. It saves labour and time.

3. Address need not be typed twice.

4. Risk of wrongly addressing in the Enveloping can be avoided

5. It can be visibly seen through glass paper of the window envelope.

PIN CODE NUMBER must be typed immediately following the name of the Town leaving a space after the first three digits. (e.g. Vellore 632 006)

Questions:

1. What are the materials required for cleaning and oiling?

2. What is meant by Window Envelope?

3. What are the advantages of Window Envelope?

4. How do you take care of your Typewriter?

5. How do you pack your machine during travel?

6. How many methods of Envelop addressing? What are they?

7. Where to type the 'To' address and 'From' address on the Envelope?

8. The following respectable terms are used either before commencing the name or the end of the name of the addressee:

Male (unmarried)	... Master or Selvan, Mr. or Thiru. or Sri (Selvan B. Sughanthar Master A. Newton
Female (unmarried)	... Miss or Selvi or Kumari (Miss Vijayanthi, Selvi. Raja Rajeswari
Male (married)	... Mr. or Sri or Thiru. or at the end Esq. or Avl.(Thiru. K.Anandan, Amos Esq.)
Female (married)	... Mrs. or Smt. or Tmt . (Tmt. Savithiri Balaji)
Company(with personal name)	... M/s.or Messrs. (M/s.Spencer & Company)
Company(with impersonal name)	...The (The Imperial Industry Ltd.,)
Before the designation of officials	...The (The Manager)
Governor or President of India	... H.E. (His Excellence) His Excellency the Government of Tamil Nadu.
Madathipathis Head of Mutts Pope	.... H.H. (His Holiness). His Holiness Kanchi Kamakodi Jaganatha Swamigal
Christian Priest / Monks	..... Rev . Father Arul Francis
- do Nuns	. ... Rev. Sister. Daisy Rani
Judges	.... Mr. Justice Perumalswamy Chief Justice Mr. (name).....
Respectable authorities or persons	.... Hon'ble Thiru. or Hon'ble sir
- do ladies	.... Hon'ble Tmt . or Hon'ble Smt .
Physician Males	.... Dr. Lionel Royston
Physician - Female	.... Dr. (Mrs.) or Dr.(Kumari) or Dr. (Tmt) Or Dr.(Smt) or Dr. (Selvi)
Muslim Males	.... Janab S.Hayath Basha Sahib
Muslim Ladies	.... Janaba M.A. Zehrajabeen Sahiba

9. MECHANISM QUESTION & ANSWERS

1. What is a typewriter?

Typewriter is a machine which produces impression like a print.

2. Who invented the Typewriter and when?

Sir. John Henry Mill invented the Typewriter in 1714. First Typewriter brought to India in 1876. Electronic Typewriters were introduced invented in 1936 by Muthiah of Ceylon. In 1958 Tamil Nadu Government approved a Standardized Tamil Key Board.

3. What are the various kinds of Typewriter?

There are two kinds of Typewriters. They are:

1. Standard Typewriter 2. Portable Typewriter

Standard Typewriters are used in Offices, Institutes and Schools.

Portable Typewriters are used for Camp purposes.

4. How can a typewriter be identified?

A Typewriter can be identified by its make (Model) and its serial number.

5. How many keys are there in the Keyboard?

There are 44 Character Keys and 11 Non-character keys in the Keyboard.

6. What is meant by a "Dead Key"?

The Dead Key causes impression but does not causes the carriage to move. It shows in the Language Typewriters.

7. What is Character Key? What is non character key?

The key which give impression while typing are called Character Keys. Keys which do not give impression are called non-character keys.

8. Mention the Non-Character keys?

(A) Space Bar, [Shift key], [c] Shift lock, [d] Back Spacer key,[e] Tabulator Bar, [f] Tabulator set key, [g] Tabulator clear key, [h] Margin Releaser, [i] Key Release key.

9. What is the use of Space Bar?

Space Bar is used to give one space between one word to another. The carriage moves to left when it is pressed. It is also used to type vertical borders in display work. Space Bar is fixed at the bottom of the key Board. This should be operated by right thumb.

10. What is the use of Back Space Key?

Back space key is used to type (to fill up) the omitted characters. The Carriage moves one space to right side when it is press.

11. What is the use of shift key and shift lock?

Shift key is used to Type upper case characters (Capital letters) occasionally and to release the Shift Lock. Shift lock is used to type upper case characters continuously.

12. What are the Guide Keys?

Guide keys are 'A' and ';'.

13. What are Home Keys? Why are they so called?

'asdf' and ';lkj' are called Home keys. Because the respective fingers should remain on these keys when not striking the other keys.

14. Which is the Master Key? What is the use of Master Key?

Keys with capital letters 'N' and 'H' are called Master keys. It is used to check the alignment of other types.

15. What are the various sizes of Typewriter?

[A] Foolscape 80 -100 degree [b] Brief size 140 degree [c] Policy 180degree [d] Manifest 240.

16. State the different kinds of Type faces?

Pica (10 letters for one inch)

Elite(12 letters for one inch)

Roman/Large pica (8 letters for one inch)

Madrid pica, Cubic pica, Cheque Writer, Italic, Script etc.

The Kind types that is most commonly used in pica and Elite.

17. What are the two kinds of shift systems ?

a) Carriage shift system b) Segment shift system. Segment shift system is advantageous.

18. What are the uses of Type bar cushion or Rubber bed ?

Type bar cushion is arranged under the type faces. It reduces the sound while typing . It prevents damage to the type bars.

19. What are the uses of variable Line spacer?

The Variable Line spacer is used to type on ruled papers, to type chemical formula and fractions, to type algebra sings and to type double total lines

20. What is the link between pinion wheel and the carriage ?

The carriage Rack is the link between pinion wheel and the carriage.

21. When the Typewriter is to be taken to distant places, how should the marginal stops be placed?

The two marginal stops should be brought together to the centre place of the carriage. The carriage does not move either left or right side.

22. Why is the carriage always moving from right to left?

The mainspring which givers the tension to draw the carriage is fixed in; the left back side of the typewriter. So the carriage is moving always from right to left,

23. How many movements of ribbon are there?

There are three movements:

a. Step by step movement of Lengthwise movement.
b. Up and down movement or Breath wise movement.
c. Automatic reversal movement.

24.What is meant by alignment?

Alignment is the forming of letters in a regular line with even space between them.

25. What happens if the Draw Cord snaps?

The Carriage suddenly dashes to the left side.

26. What is Mainspring? Describe the function?

Mainspring is a coiled spring. It is screwed tightly and fixed in the Mainspring Drum. Mainspring Drum is fixed in the left backside of the machine. It supplies the motive power to draw the carriage towards left through the draw cord.

27. How Many rubber feet are in the Typewriter? What are the uses of it?

There are four rubber feet in the typewriter.

Uses: 1. To reduce the sound and prevent the machine from moving while typing.

2. To prevent damage to the key levers.

28. How many methods followed in typing? What are they?

There are two methods of manipulation of the key board

They are 1)Touch method or Blind method

2) Sight method

29. What is meant by touch system?

Touch system means mentally locating the position of the keys by sense of touch without looking at the key board.

II. INTRODUCTION TO COMPUTER OPERATION:

Knowing About Computer

What is a Computer?

We use Typewriter Machines in our daily life. Typewriter Machines make our work easy. Machines save our time, energy and give us comfort. But a Computer is an advanced machine found from the basic of the typewriter.

Computer is also a Machine. It helps us to do our work with ease and makes our life easy. Computers are used in almost all walks of life.

Computers work on electricity. They need to be switched ON before we can use them. We switch ON rthe Computer using the ON/OFF Switch. When we switch ON the Computer, Electricity flows from the Power Plug through the Power Cable to the Computer. To check whether a Computer or its part is ON or OFF, we need to check the Power-ON l Light . If the light glows it is ON, Or else, It if OFF Almost all the Computer parts have Power ON Lights on them.

· Electricity is dangerous . Never touch Plugs or wires when the Computer is ON. You can get hurt if you are not careful.

Early History

2500 BC - The Abacus
1614 AD - Napier`s Bones
1633 AD - The Slide Rule
1642 AD - The Rotating wheel Calculator
1822 AD - The Difference Engine
1890 AD - Generation of Computers

Generation of computers

First Generation	-	1940 - 1956 : Vacuum Tubes
Second Generation	-	1956 - 1963 : Transistors
Third Generation	-	1964 - 1971 : Integrated Circuits
Fourth Generation	-	1971 - Present : Microprocessors
Fifth Generation	-	Present and Beyond : Artificial Intelligence

Data, Information and Program

Computer is a tool for solving problems. Computers accept instructions and data, perform arithmetic and logical operations and produce information. Hence the instructions and data fed into the computer are concerted into information through processing.

Basically data is a collection of facts from which information may be derived. Data is defined as an un- processed Collection; fo raw facts in a manner suitable for communication, interpretation or processing.

Hence data are

Stored facts
Inactive
Technology based
Gathered from various sources.;

On the other hand information; is a collection of facts from which conclusions may be drawn. Data that has been interested, translated or transformed to reveal the underlying meaning. This information can be represented in textual, numerical, graphic, Cartographic, narrative, or audiovisual forms.

Hence information is

Processed facts
Active
Business Based
Transformed from data

Algorithm is defined as a step-by-step procedure or formula for solving a problem i.e.a a set of instructions or procedures for solving a problem. It is also defined as a mathematical procedure that can usually be explicitly encoded in a set of computer language instruction that manipulate data.

A computer program (or set of programs) is designed to systematically solve a problem. For example, a problem to calculate the length of a straight line joining any two given points.

The programmer must decide the program requirement develop logic and write instructions for the computer in a programming language that the computer can translate into machine language an d execute. Hence, problem solving is an act of defining a problem understanding the problem and arriving at workable solutions.

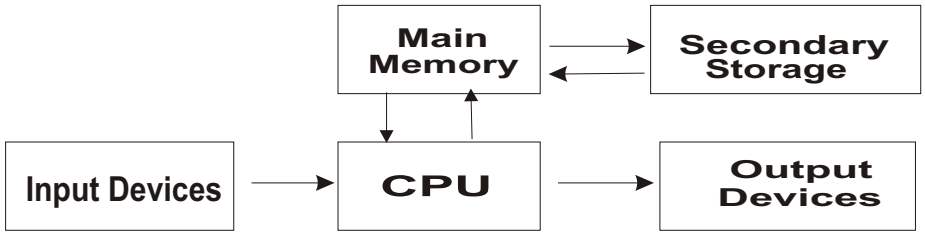
In other words, problem solving is the process of confronting a novel situation, formulating connection between the given facts identifying the goal of the problem and exploring possible methods for reaching the goal. It requires the programmer to co-ordinate previous experience and intuition in order to solve the problem.

Hardware and Software
Introduction

A computer system has two major components, hardware and software. In practice, the term hardware refers to all the physical items associated with a computer system. Software is a set of instructions, which enables the hardware to perform a specific task

Computer Hardware

A computer is a machine that can be programmed to accept data (input), and process it into useful information (Output). It also stores data for later reuse (storage). The processing is performed by the hardware. The computer hardware responsible for computing are mainly classified as follows:



Input devices allows the user to enter the program and data and send it to the processing unit. The common input devices are keyboard, mouse and scanners.

The **Processor**, more formally known as the central processing unit (CPU), has the electronic circuitry that manipulate input data into the information as required. The central processing unit actually executes computer instructions.

Memory from which the CPU fetches the instructions and data is called main memory. It is also called as primary memory and is volatile in nature.

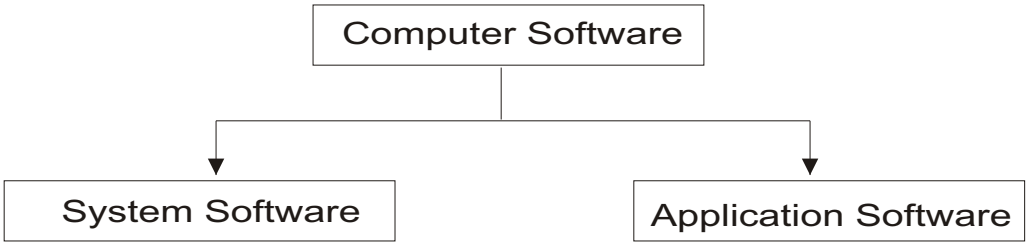
Output devices show th processed data - information - the result of processing. The devices are normally a monitor and printers.

Storage usually means secondary storage which stores data and programs. Here the data and programs are permanently stored for future use.

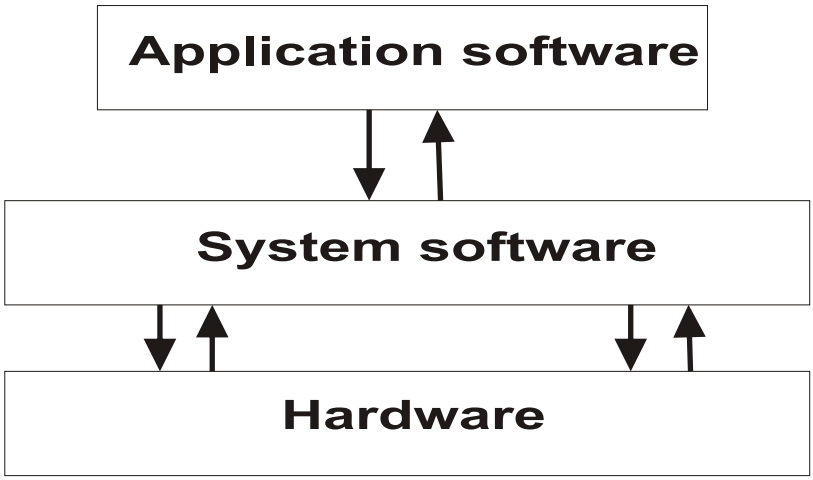
The hardware devices attached to the computer are called peripheral equipment. **Peripheral equipment** includes all input, output and secondary storage devices.

Computer software

Software refers to a program that makes the computer to do something meaningful. It is the planned, step-by-step instruction required to turn data into information. Software can be classified into two categories: System Software and Application Software.

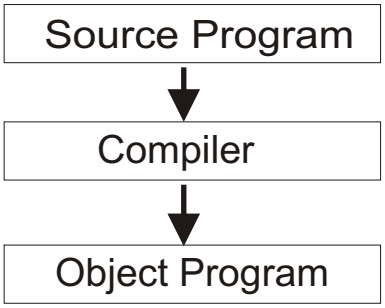


System software consists of general programs written for a computer. These programs provide the environment to run the application programs. System software comprises programs, which interact with the hardware at a very basic level. They are the basic necessity of a computer system for its proper functioning. System software serves as the interface between hardware and the user .The operating system compilers and utility programs are examples of system software



The most important type of system software is the operating system. An operating system is an integrated act of specialized programs that is used to manage the overall operations of a computer.. It acts time an interface between the user, computer hardware and software. Every computer must have an operating system to run other programs. DoS (Disk Operating System), Unix, Linux and windows are some of the common operating systems.

The comelier software translates the source program user written program) into an object program (binary form). Specific compilers are available for computer programming languages like FORTRAN, COBOL, C, C++ etc. The utility programs support the computer for specific tasks like file copying, sorting, linking a object program, etc.



An Application software consists of programs designed to solve a user problem. It is used to accomplish specific tasks rather than just managing a computer system. Application; software are in turn, controlled by system software which manages hardware devices.

Some typical examples are : railway reservation system, game programs, work processing software, weather forecasting programs. Among the application software some are packaged for specific tasks. The commonly used application Software packages are word processor, spread sheet, database management system and graphics.

One of the most commonly used software package is word processing software. Anyone who has used a computer as a word processor knows that it is far more than a fancy typewriter. The great advantage of word processing over a typewriter is that you can make changes without retyping the entire document. The entire writing process is transformed by this modern word processing software. This software lets you create, edit, format, store and print text and graphics. Some of the commonly used word processors are Microsoft word, WordStar, WordPerfect, etc.

Spreadsheet software packages allow the user to manipulate numbers. Repetitive numeric calculations, use of related formulae and creation of graphics and charts are some of the basic tools. This capability lets business people try different combinations of numbers and obtain the results quickly. Lotus1-2-3, Excel, etc. are some of the famous spreadsheet applications

Type of Software	Functions	Examples
Word Processors	All personal Computers are loaded with word processing software which has the same function as a typewriter for writing letters, preparing reports and printing	Microsoft word, Word Perfect, Word star
Spreadsheet	A table containing text and figures, which is used to Calculations and draw charts	Microsoft excel, Lotus 1-2-3
Database Management System	Used for storing, retrieval and Manipulation; of Information	Microsoft Access, Oracle.

Basic Components of a Digital Computer

Introduction

Computers are often compared to human beings since both have the ability to accept data, store, work with it, retrieve and provide information. The main difference is that human beings have the ability to perform all of these actions independently Human being also think and control their own activities. The computer, however, requires a program (a predefined set of instructions) to perform an assigned task. Human beings receive information in different forms, such as eves, ears, nose, mouth, and even sensory nerves. The brain receives or accepts this information, works with it in some manner, and then stores in the brain for future use. If information the time requires immediate attention, brain directs to respond with actions. Likewise the central Processing Unit (CPU) is called th brain of the computer. It reads and executes program instructions, performs calculations and makes decisions.

Components of a Digital Computer

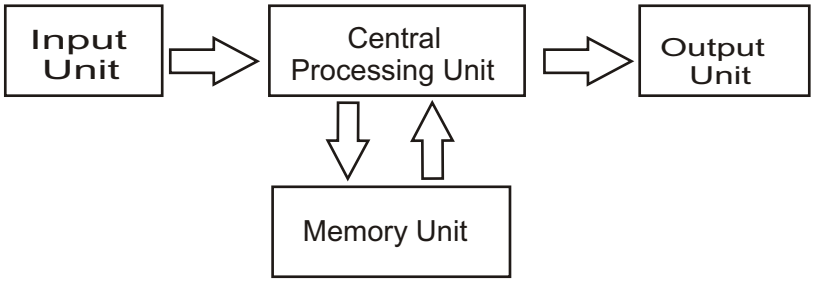
Computer system is a tool for solving problems. The hardware should be designed to operate as fast as possible. The software (system software) should be designed to minimize the amount of idle computer time and yet provide flexibility by means of controlling the operations. Basically any computer is supposed to carry out the following function.

- Accept the data and program as input
- store the data and program and retrieve as and when required.
- Process the data as per instructions given by the program
- Communicate the information as output

Based on the functionalities of the computer, the hardware components can be classified into four main units, namely

- Input Unit
- Output Unit
- Central Processing Unit
- Memory Unit

These units are interconnected by minute electrical wires to permit communication between them. This allows the computer to function as a system. The block diagram is shown below.



Functional Units of a Computer System

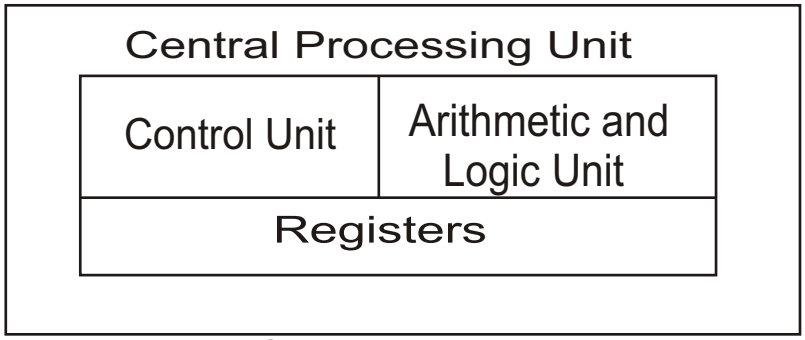
Input Unit

A Computer uses input devices to accept the data and program. Input devices allow communication between the user are the computer. In modern computer keyboard, mouse, light pen touch screen etc, are some of the input devices.

Output Unit

Similar to input devices, output devices have an interface between the computer and the user. These devices take machine coded output results from the processor and convert them into a form that can be used by human beings. In modern computers, monitors (display screens) and printers are the commonly used output devices.

Central Processing Unit



Central Processing Unit

CPU is the brain to any computer system. It is just like the human brain that takes all major decision, makes all sorts of calculations and directs different parts of the computer function by activation and controlling the operation. It consists of arithmetic and logic units, control unit and internal memory (registers). The control unit of the CPU co-ordinates the action of the entire system. Programs(software) provide the CPU, a set of instruction to follow and preform a specific task. Between any two components of the computer system, there is a pathway called a bus which allows for the data transfer between them

Control unit controls all the hardware operations, , those of input units, output units, memory unit and the processor. The arithmetic and logic units in computers are capable of performing addition, subtraction, division and multiplication as well as some logical operation. The instruction and data are stored in the main memory so that the processor can directly fetch and execute them.

Memory Unit

In the main memory, the computer stores the program and data that are currently being used. In other words since the computers use the stored program concept, it is necessary to store the program and data in the main memory before processing.

The main memory holds data and program only temporarily. Hence there is a need for storage devices to proved backup storage., They are called secondary storage devices or auxiliary memory main memory and is much less expensive.

Stored Program Concept

All modern computer use the stored program concept. This concept is known as the Von-Neumann concept due to the research paper published by the famous mathematician John Von Neuman. The essentials of the stored program concept are

- the program and data are stored in a primary memory (main memory)
- once a program is in memory, the computer can execute it automatically without manual intervention.
- the control unit fetches and executes the instructions in sequence one by one.
- an instruction can modify the contents of any location in the stored program concept is the basic operating principle for every computer.

Central Processing Unit

Functions of a Central Processing Unit

The CPU is the brain of the computer system. It performs arithmetic operations as well as controls the input, output and storage units. The functions of the CPU are mainly classified into two categories :

- Co - ordinate all computer operations
- Perform arithmetic and logical operations on data

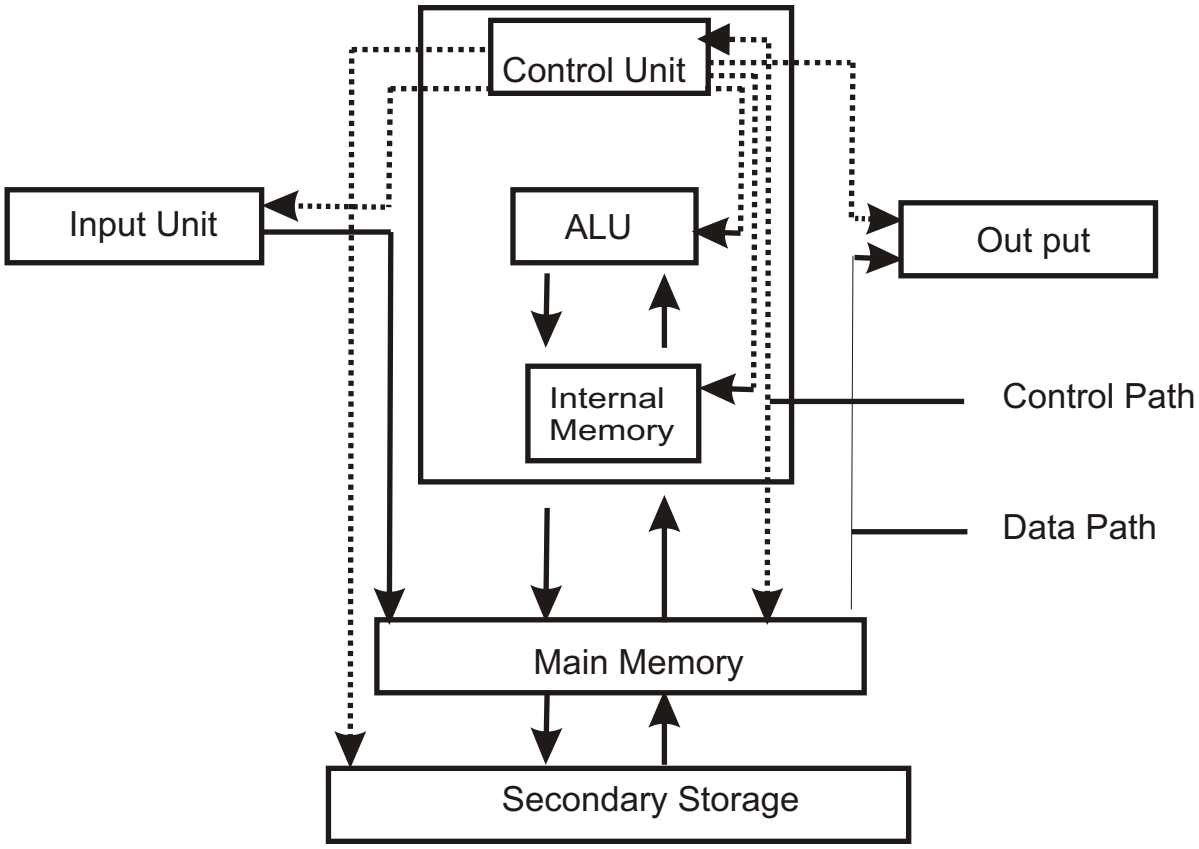
The CPU has three major components.

- Arithmetic and Logic Unit
- Control Unit
- Registers (internal memory)

They arithmetic and logic unit (ALU) is the part of CPU where actual computations take place. It consists of circuits which perform arithmetic operation over data received from memory and are capable of comparing two numbers.

The Control unit directs and controls the activities of the computer system. It interprets the instructions fetched from the main memory of the computer, sends the control signals to the devices involved in the execution; of the instructions.

While performing these operations the ALU takes data from the temporary storage area inside the CPU named registers. They are high-speed memories which hold data for immediate processing and results of the processing.



Functions of a CPU

Working with Central Processing Unit

The CPU is similar to a calculator, but much more powerful. The main function of the CPU is to perform arithmetic and logical operations on data taken from main memory. The CPU is controlled by a list of software instructions. Software instructions are initially stored in secondary memory storage device such as a hard disk, floppy disk, Cd - ROM, or magnetic tape, these instructions are then loaded onto the computer`s main memory.

When a program is executed, instructions flow from the main memory to the CPU through the bus. The instructions are then decoded by a processing unit called the instruction decoder that interprets and implements the instructions. The ALU performs specific operations such as addition, multiplication, and conditional tests on

the data in its registers, sending the resulting data back to the main memory or storing it in another register for further use.

To understand the working principles of CPU, let use go through the various tasks involved in executing a simple program. This program performs arithmetic addition on two numbers. The algorithm of this program is given by

(1) Input the value of a
(2) Input the value of b
(3) Sum = a+b
(4) Output the value of sum

This program accept two values from the keyboard, sums it and displays the sum on the monitor. The steps are summarized as follows :

1. The control unit recognizes that the program (Set of instructions) has been loaded into the main memory. Then it begins to executes the program instructions one by one in a sequential manner.
2. The control unit signals the input device(say keyboard) to accept the input for the variable 'a'.
3. The user enters the value of 'a' on the keyboard.
4. The control unit recognizes and enables to route the data (Value of a) to the pre-defined memory location (address of 'a').
5. The steps 2 to 4 will be repeate4d for the second input 'b' The Value of 'b' is stored in the memory location (address of 'b').
6. The next instruction is an arithmetic instruction. Before executing the arithmetic instruction, the control unit enables to send a copy of the values stored in address of 'a' and address of 'b' to the4 internal registers of the ALU and signals the ALU to perform the sum operation
7. The ALU performs the addition. After the computation, the control unit enables to send the copy of the result back to the memory (address of 'sum').
8. Finally, the result is displayed on the monitor. The control unit enables to send the copy of the values of the address of 'sum' to the monitor (buffer) and signals it. The monitor displays the result.
9. Now this program execution is complete.

The data flow and the control flow of CPU during the execution of this program is given as

Summary

* Computers are often compared to human beings since both have the ability to accept data, store, work with it, retrieve and provide information.

* A computer system is the integration of physical entities called hardware and non-physical entities called software.

* The hardware components include input devices, processor, storage devices and output devices.

* The software items are programs and operating aids so that the computer can process data.

* A computer uses input devices to accept the data and program.

* In modern computers, monitors and printers are the commonly used output devices.

* CPU is the brain of any computer system. It consists of arithmetic and logic units control unit and internal memory (registers).

* Control unit controls all the hardware operations, ie, those of input units, output unit and the processor.

* The arithmetic and logic units in computers are capable of performing addition, subtraction, division and multiplication as well as some logical operations.

* In the main memory, the computer stores the program and data that are currently being used.

* All modern computers use the stored program concept. This concept is due to John Von Neuman.

* The smallest unit of information is a single digit called a 'bit' (binary digit), which can be either 0 or 1.

* The Secondary memory is the memory that supplements the main memory. This is a long term non-volatile memory.

* The most common input device is the keyboard.

* Mouse is an input device that controls the movement of the cursor on the display screen.

* Monitor is a commonly used output device.

* Some of the commonly used storage devices are hard disks, magnetic tapes, floppy disks and CD-ROM.

Uses of Computers

Computers are very useful Machines. Unlike many other machines that have definite purposes, a Computer can do any number of things. They help us to play games, write letters, do calculations, draw and paint pictures, listen to music, watch movies, etc. Computers are used in many places. Some of the common places are:

Business places and in Other places:

Computers are used in business places like shops, Offices, Banks, Homes schools Industries, etc. There are many repetitive jobs in business places, Computers are used very effectively to handle three types of jobs, since they never get bored doing the same thing again and again.

Features of the Computer+

A Computer has the following four important qualities. These are what that makes a Computer such a special machine.

1. The Computer works very fast. It can do a number of calculations in a second. At best, we can only do one such calculation in ka few seconds.
2. We might make mistakes, while we work. But the Computer never makes mistakes. It always gives results correctly. The Computer never gets tried. It can work continuously for many hours.
3. Computers have a large memory. They can store large amounts of information.
4. Unlike other machines, A Computer can do a verity of Jobs.

Types of Computers:

- Micro Computers
- Mini Computers
- Main Frame Computers
- Super Computers.

Main parts of the Computers are:

- The System Unit
- Monitor
- Key board
- Mouse

The System Unit looks like a box.
All the Other Computer parts (called Peripherals')
are connected to the System Unit. The System Unit is a very important part of the Computer because it contains the 'Central Processing Unit (CPU) The CPU

is the Computer's most important part because:

λ The CPU does all the work that we give to the Computer.

λ It controls all the activities of the Computer. Hence, it is also called the 'Brain' of the Computer.

λ The CPU is a single semiconductor chip made of Silicon. It sits inside the System Unit. It is fitted on the main circuit board of the Computer called the 'Mother Board'

λ In the system, the Input Devices get data and instructions from the user, and then place them in the Main Memory (RAM)

λ The CPU takes these (data and instructions) from the Main Memory and then processes it. It then sends the results back to the Main Memory. The results are then send from the Main Memory to the Output Devices for the user.

Λ CPU is also known as the 'Microprocessor'

In early Computers, CPUs were made of Vacuum Tubes and were very large.

The CPU has two main components:

1. Arithmetic and Logic Unit (ALU)
2. Control Unit.

The Arithmetic and Logic Unit carries out all the arithmetic (calculations like addition subtraction, multiplication and division) and Logic (comparisons like A>B) operations of the Computer. The Control Unit controls the activities of the ALU, Memory and the other devices.

A CPU's speed is measured in Mega Hertz (MHz) or Giga Hertz (GHz).

MONITOR:

After processing the Input, the Computer presents the results to us through the Output devices. The Monitor and the Printer are the most common Output Devices of the Computer (but there are many more)

l Monitor is also called 'Screen'

l The Monitor is connected to a circuit board called 'Display Adapter Card' in side the System Unit.

A Monitor looks and works like a TV set. It is an Output Device that displays information from the Computer (like text, pictures, movies, etc.,) It also displays our instructions that we type using the keyboard. There are two

types of Monitors Monochrome and Colour. Monochrome Monitors display information in a single colour whereas Colour Monitors display information in various colours. Monitors come in different sizes. Monitor resolution is determined by the number of 'Pixels' (which is the short for 'Picture Elements') A Monitor with greater number of Pixels has a higher resolution and hence can display a sharper picture.

There are various Controls on the Monitor. These are used to control the Brightness, Contrast and the Position of the picture on the Monitor.

There is an ON/OFF Switch to turn the Monitor ON or OFF. There are also Controls to adjust the following:

Brightness: This helps us to adjust the brightness of the picture on the Monitor.
Contrast: This helps us to adjust the contrast of the picture on the Monitor.

Apart from these, there are a few other controls to control the position of the picture on the Monitor. We will learn about these later.

KEYBOARD:

We give the input to the Computer using the Input Dev ices The Keyboard and the Mouse are the most common Input Devices of he Computer (but there are many more)

l The Keyboard is an Input Device.

l It is used to enter information into the Computer. Most Keyboards have 101 keys The job of each key is printer on it.

A Keyboard has a set of Alphabet Keys, (A to Z are marked) Number keys (0 to 9), Function keys (The keys labeled F1 to F12 on the top of the keyboard)and some Special keys.

Special Keys are located at different places on the keyboard.

Some of the Special Keys are:

1. Enter Key.
2. Spacebar Key.
3. Caps Lock Key
4. Backspace Key
5. Delete Key

The Enter Key is the big fat Key. It is used to enter instructions into the Computer. It is also used to type anew line ink the Computer. We press the Enter Key with our right pointing finger.

The long thin Key at the bottom of the Keyboard is called the Spacebar. This is the longest Key on the Keyboard. The spacebar is used to give space between words. We press the spacebar with our thumb.

Caps Lock Key is used to type letters in capitals(upper case). After pressing this key once, whatever we type appears in capital letters. After pressing this key once again, whatever we type appears in small letters.

The Backspace Key and the Delete Key are just like Erasers. Both are used to correct mistakes while typing. When we press the Back space key, the letter to the left of the Insertion Point is erased. Pressing the Del Key deletes a letter to its right

When typing the Keys of the Keyboard of the Computer, the following correct sitting posture should be followed always:

λ Sit at the right height
λ Keep the elbow slow and down by your sides.
λ Pull the Keyboard to the edge of the table
λ Hold the hands with curved fingers over the keys.
λ Place your wrist off the table,
Λ Put both your feet on the floor (if possible)

MOUSE

The Mouse is also an Input Device. It has a tail and looks like a real Mouse. It has two buttons at the top-left and Right. Some moue comes with three buttons (Left, Right and Middle button) A Mouse is connected to the Computer with a cable. When we switch on the Computer, a Pointer that looks like an arrow appears on the Monitor. This is called the 'Mouse Pointer' Mouse allows us to move the Mouse Pointer on the Computer Screen.
We can do the following things using the Mouse:

λ Point λ Left - Click λ Right click λ Double Click

λ Drag and Drop

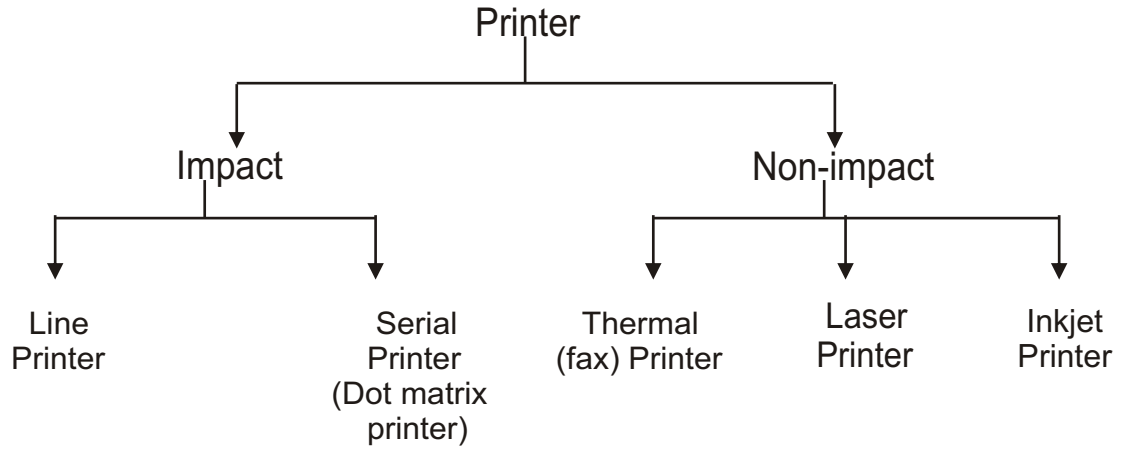
The Mouse has a Ball under it. The Mouse moves on this ball. This is called the 'Tracking Ball' It is similar to the Steering Wheel of a car. It helps us to control where the Moue Pointer on the Computer Screen is going. When we move the Mouse, The Tracking Ball also moves. This makes the Mouse Pointer also to move.

We should always use a Mouse with a Mouse Pad. Or else, it will get spoilt. While working, if the Mouse goes off the edge of he Mouse Pad, e should pick it up and place it in the center of the Mouse Pad.

Trackball: Trackball is a pointing device similar to a Mouse. It also allows us to move the Pointer on the Computer screen. It consists of a ball resting on two rollers and one or more buttons. If we roll the ball using our finger, the pointer moves on the computer screen. Trackballs are usually found in Laptop computers.

Pinter

Printer is an output device that prints text or images on paper or other media (Like transparencies). By printings you create what is known as a `hard copy` There



CHAPTER - I

AN INTRODUCTION TO WINDOWS XP

What is windows XP?

Windows XP Professional is a user-friendly operating system designed for popular use. The most important advantage of using windows is its GUI (pronounced as GOOYEE). It is said that the right side brain is good in processing the pictures and is the seat of creative thinking and intuitive ideas whereas the left side brain is good at logical thinking. It is believed, before the introduction of GUI, users of OS, mainly used their left side brain, keeping their right side brain idle. It is felt, Windows effectively uses the left and right side of the brain. Many other operating systems (including MS-DOS) use Command Line Interface (interface lets any one connected with the machine. Actually interface is a (virtual) connection between two entities. For example, T.V. Remote is an interface which connects a user and a T.V). In this kind of interface, you have to remember cryptic Commands and type them without mistakes. To make things worse some operating systems are case-sensitive also (LS, Ls, IS or Is are not same) . A simple spelling mistake or missed space will result in an error. Windows displays all the information on the screen and all you have to do is to point and select using the mouse, with its GUI. A picture is worth a thousand of words, as they say.

Windows XP Professional combines all the positive aspects of its Microsoft predecessors. This satisfies all the users who want to prevent frequent crashing of software and want to use easy techniques.

Mouse

If you want to extract work from the computer, you have to input data. The input can normally be provided by the keyboard and the Mouse. You know the keyboard. It you want to move from cone window to another, unless you know the keyboard combinations, it will be very difficult to move one window to another by using keyboard. But the mouse intuitively provides the idea.

As you have learnt in the earlier section, windows XP uses GUI. That is, all information is displayed on the screen. You can use it by simply pointing to it and selecting. To do this you use the mouse. The mouse is an input device that you move on a flat surface (usually a mouse pad.) When you move the mouse, a pointer movers on the screen. This pointer, called the Mouse Pointer, is used to point to things on the screen. The mouse has either two or three buttons on the top. The left button is the most often used. Described below are mouse actions that you need to know to use window XP effectively.

Note-Click on and click are used interchangeably for example you can write Click on the button or click the button. Both forms are used in this chapter.

1) **Move:** Moving the mouse is simply dragging the mouse on the mouse pad so that the mouse pointer moves in the direction you want, without touching the buttons. This action allows you to point to things on the screen.

2) **Click:** Clicking is used to select objects on the windows screen. To click, ensure that the mouse is pointing to want you want and press the left button of the mouse once and release the button immediately.

3) **Double-click:** Double-clic is most often used to start applications. To double-click, point to what you want and press the left button of the mouse twice in quick succession. You should get used with double-click; because new comers to the computer field find it difficult to cope with double-click in the beginning.

4) **Click and drag:** this mouse action is used to move an object from one place to another. When you click and drag and object from one place to another. When you click and drag an object, the object moves along with the mouse pointer. To click and drag, hold the left button of the mouse down and move the mouse to the place wherever you want.

Mouse after right click

The right click: Right Mouse button gains a lot of significance now-a-days. If you right click on an item, you will be provided with a context sensitive menu (context sensitive menu changes its contents depending on the situation) This also called shot-cut menu you can experiment with that menu. The context sensitive menu provides almost all the facilities offered by menu as well as toolbars. You can change left mouse button into right mouse button and vice versa. In this case the left click becomes the right click and vice versa. This action may be helpful; to the left handed people.

Moving the mouse pointer via the Keyboard.

Again you can create the effect of all the above operations by keyboard operations, In the beginning, people are very much attracted by the use of mouse, but when they have to write lengthy programs, changing mouse and keyboard frequently is irksome. Therefore those people who are experts in typewriting prefer to make use of keyboard to bring the effect of mouse click.

The following keys can duplicate the mouse operations. It you want to use your keyboard to do the work of the mouse, you have to follow these steps:

1) Click the **Start** button
2) select the **Control panel** in the menu and click it.
3) Choose the **Accessibility Options** in the menu and click it.
4) It opens a screen, click on **Accessibility option** under **pick a Control Panel icon.**
5) Open the **Mouse** tab
6) Activate use **Mouse Keys** check box if it is not already activated.

Windows XP allows you to move the mouse pointer by using the arrow keys on numeric keypad of the keyboard.
Note 1 : Make sure that you have **Num Lock** turned on.
Note 2 : Mouse keys do not work with the separate arrow-key keypads found on most modern keyboards.

Besides the basic arrow movements, you can also use the numeric keypad keys outlined here. The following table gives you the equivalent keys for mouse operations.

Key	Equivalent Mouse Action
5	Click
+	Double - Click
/	Select the left mouse button
*	Select both mouse buttons
-	Select the right mouse button

These key can be used as follows:

To double-click an object, use the arrow keys to move the pointer over the object, press the slash key (/) to select the left mouse button, and press the plus sign (+) to double-click

To right-click an object, use the arrow keys to move the pointer over the object, press the minus sign (-) to select the right mouse button, and press 5.

To drag-and-drop an object, use the arrow keys to move the pointer over the object, press the slash key (/) to select the left mouse button, press Insert to lock the button, use the arrow keys to move the object to its desired destination, and press delete to release the button and drop the object.

To click an object, use the arrow keys to move the pointer over the object, press the slash key (/) to select the left mouse button (if it isn`t selected already), and press 5 to click.

To right-drag-and-drop an object, use the arrow keys to move the pointer over the object; press the minus sign(-) to select the right mouse button; press Insert to lock button; use the arrow keys to move the object to its destination; and then press Delete to release the button to drop the object, and display the context menu.

Use Mouse Keys when Num Lock is on. These options determine the relationship between Mouse Keys and the Num Lock key. When On is activated (this is the default), for example, Windows XP will use Mouse Keys whenever you have Num Lock is on. If you then turn off Num Lock, you can use the regular arrow keys.

Show Mouse Key status on screen : When this check box is activated, windows XP displays the Mouse Keys icon in the system tray. Double-clicking this icon opens the accessibility Properties dialog box.

CHAPTER: II

WINDOWS EXPLORER:

What is new in windows XP?

1) Easier Installation and Updating

Roughly speaking, installation means the addition of program files and folder to your hard disk. Windows XP includes several features designed to make it easier to install and to keep up-to-date, the program files and folders.

2) Effective Multi-user capabilities

Windows XP keeps each user`s files separate so that no user can see another users files unless they have been shared deliberately. It lets multiple users Log on at the same time. End users run their applications.

3) Redesigned start menu

Windows XP provides a redesigned start menu that is easier and quicker to use. The start menu appears as a panel containing two columns. The lower part of the left column automatically reconfigures itself to show your most used applications. The start Menu can also be customized to the show classic start Menu (Similar to the start menu of Window 98).

4) Taskbar changes and enhancements

These improvements are designed to help beginners. Experienced user may switch back to how it was in the earlier versions of windows, if they like.

Taskbar locking: By default, windows XP Professional locks the Taskbar. This prevents taking the taskbar to an inaccessible area.

Taskbar scrolling : Taskbar locking prevents flexibility. It the taskbar is of a fixed size, buttons for the running applications must become very small and useless when 10 or more applications run, To tackle the situation windows XP provides a scroll bar on the taskbar when required.

Taskbar Button grouping : Windows XP provides only one button per application when there is not enough space to accommodate buttons on the taskbar. This too prevents minimizing the size of buttons displayed on the taskbar. It shows the name of the current active window along with the number of windows and a drop-down arrow. If you click the button, it will show you the list of windows by title, you can select any one of them

5) Notification area

The status area (system tray) is known as notification area. Notification area shows a few icons of the programs which are automatically executed at start up.

6) better Audio and Video Features

Windows XP includes a set of new features and improvements for audio and video.

7) CD Burning

Windows XP provides built-in CD burning capabilities, which reduce the effort taken by the user while writing something into the CD.

8) Search companion

Windows XP includes Search Companion, an enhanced search feature to search for finding information both on your PC and in the world Wide Web

9) Enhanced Autoplay Feature

If you insert a CD and if it starts playing the music from it or installing any software it contains, immediately, this facility is called autoplay. This feature is enhanced considerably in Windows XP

10) More Games

Windows XP includes more games than the previous versions of Windows. This may be a welcome move for young people.

11) Remote desktop Connection

This improved feature lets you use your computer to access a remote computer with less effort.

12) A more Useful Winkey

One or two winkeys may be provided in modern keyboards. Normally the key is situated between ctrl and Alt keys. This key possesses the windows logo. Windows XP includes more functionality for the Winkey. You are provided table with the uses of Winkey.

WINKEY COMBINATIONS

Winkey Combination	What it does
Winkey	Toggles the display of the start menu
Winkey+b	Moves the focus to the notification area
Winkey+Break box	Displays the System Properties dialog
Winkey+D	Displays the Desktop
Winkey+E	Opens an Explorer window showing My computer
Winkey+F	Opens a search results window and activates search Companion.
Winkey+Ctrl+F	Opens a Search results window, activates search companion, and starts a Search for Computer.
Winkey+F1	Opens a Help and support center window
Winkey+L	Locks the computer
Winkey+M	Issues a Minimize All Windows command
Winkey+Shift+M	Issues a Minimize All Windows command
Winkey+R	Displays the Run dialog box
Winkey+Tab	Moves the focus to the next button in the Taskbar.
Winkey+Shift+Tab	Moves the focus to the previous button in the Taskbar
Winkwy+U	Displays Utility Manager.

13) Improvement for portable computers

Windows XP includes several improvements for portable computers (such as Note book computers).

14) More Help

Windows XP delivers more Help-and more different types of Help-than and other version of windows. You have already seen some help topics of interest.

15) Network Connectivity

Windows XP provides various improvements in network connectivity.

16) Multiple Monitor Support-For Both Desktop and Laptop.

Windows XP Professional also introduces a new technology called Dual View, which offers excellent opportunities to multiple monitor support especially to laptops. The above characteristics can apply to both windows XP Professional and windows XP Home.

The following characteristics strictly belong to Windows XP Professional.

17) Backup and automated system Recovery (ASR)

Windows XP Professional includes a Backup utility and an ASR feature that can be activated from boot up to restore a damaged system.

18) Offline Files

Offline files allows you to store copies of files located on network drives on your local drive so that you can work with them when your computer is no longer connected to the network.

19) Remote Desktop

Remote Desktop allows you to access the Desktop of the computer connected remotely as if you are accessing the Desktop of y9our own computer. If you need to connect to your computer remotely via Remote Desktop connection, you need Windows XP Professional rather than windows Home. So far, you have seen features that caught your eyes. Now, you are going to see the facilities hidden in Windows XP Professional.

20) Protected Memory Management

Windows XP offers fully protected memory management. With this facility, Windows XP can handle memory errors effortlessly.

21) System File Protection

Windows XP offers a feature called system file Protection that protects your system files from inadvertent mistakes on your part.

22) System Restore

Windows XP provides a system Restore feature. This is more effective than System Restore feature found in windows Me.

You can use System restore to rollback the changes to an earlier point at which the system was working properly.

23) Device driver Rollback

Windows XP tracks the drivers you install and lets you roll back the installation of the driver. In other words, you can revert to the driver you were using before.

24) Compatibility with Windows 9x applications

Windows XP runs all applications that would run on windows 9X, Windows NT and windows 2000.

Guarding Against Viruses

The literal meaning of virus is poison. Virus enters into the living things and passes its code t the cells of the host. The host cell forgets to undertake its own work, it becomes the industry for producing viruses, Computer virus is a mischievous program designed to damage the Software, Hardware and / or data.

The technique of the biological virus is employed by the computer virus also. It enters your computers as innocuous software and multiplies many time,. In that process, it takes the lion`s share of the memory normally, erasing your own useful programs.

Though virus started from the Bell Laboratory in the name of core wars, it showed its ugly head to the world by the handiwork of a self taught Software engineer. But still the method of creating viruses was kept as a secret. One of the eminent computer professionals, while receiving a prestigious award, revealed the secret of creating viruses to the audience. The entire computer world was shell-shocked. This opened the Pandora box. From then on, the computer world is coursed with many viruses. Most of them are created by the students to just show their intelligence to the world, thus causing a loss of millions of dollars. The virus designers mainly attack windows OS.

Viruses come in three basic flavours. They are file infectors, Boot sector viruses and Trojan horse viruses

File infectors attach themselves to executable files and spread among other files when you run the program

Boot sector viruses replace the hard disk`s master boot record (or the boot sector on a floppy disk) with their own twisted version of the bootstrap code. This lets them load themselves into memory whenever you boot your system (the famous “Michelangelo” virus is one of these boot sector beasts).

Trojan horse viruses, which appear to be legitimate programs at first glance but when loaded, proceed to viciously damage your data:

Viruses are, by now, an unpleasant fact of computing life, and you just have to learn to live with the threat. But somehow in the beginning, the Microsoft chose to ignore this ugly threat, but now Microsoft deals with this crime more seriously in Windows XP. There are vendors who provide antiviral vaccines that will protect you from the hazards of this threat. Anti virus is a program to safeguard your system from the virus programs.

There are many such anti viruses, which make the life of the programers some what easy.

Here are two tips to keep your system virus-free:

1. The main source of the viruses is the floppy disk. So, one should be very careful about the floppies.

2. Now-a-days, the internet is the major source of producing viruses. One should be very careful while downloading files from the Internet. Keep your virus utility`s virus library up-to-date. By some accounts, more than 100 new virus strains are released each month, and they just get nastier and nastier. Regular updates will help you keep up-to-date

The Economical explorer Keyboard

If you want to have alternative methods for the mouse click, here is the table.

Alt+Enter	Display the properties sheep for the selected objects.
Alt+F4	Closes explorer (actually closes the active window).
Alt+left arrow	Takes you back to a previously displayed folder.
Alt+right arrow	Takes you forward to a previously displayed folder
Backspace	Takes you to the parent folder fo the current
Ctrl+A	Selects all the objects in the current folder.
Ctrl+C	Copies the selected objects to the Clipboard
Ctrl+V	Pastes the most recently cut or copied objects
Ctrl+X	Cuts the selected objects to the clipboard
Ctrl+Z	Reverses the most recent action.
Delete	Sends the currently selected objects to the recycle Bin

F2	It helps to rename the selected object.
F3	Displays the find dialog box with the current folder
F4	Opens the Address toolbar`s drop-down list.
F5	Refresh the Explorer window. This is handy if you have made changes to a folder via the command line or a DOS program and you want to update the Explorer window to display the changes
F6	Cycles the highlight among the all Folders list, the Contents list, and the address toolbar.
Shift+Delete	Delete the currently selected objects without sending them to the Recycle Bin
Shift+10	Displays the context menu for the selected objects
Tab	Cycles the highlight among the All Folders list, the contents list and the address toolbar. F6 does the same thing.

Keys for Moving the Cursor through Text

Key	**Where it Moves the Cursor**
	One character to the right
	One character to the left
	Up one line
	Down one line
Home	Beginning of the line
End	End of line
Ctrl+Home	Top of document
Ctrl+End	End of document
Page Up (Page Up)	Up a page (or screen)

Page Down (Page Dn)	Down a page (or screen)
Ctrl+ ←	One word to the left
Ctrl+ →	One word to the right
Ctrl+ ↑	Up one paragraph
Ctrl+ ↓	Down one paragraph
Ctrl+Page Up (PgUp)	To top of previous page
Ctrl+Page down (PgDn)	To top of next page

Summary

The opening screen is called the Desktop. It contains icons and taskbar. Icons are small pictures representing applications. The taskbar has the start button, the quick launch toolbar and the System Tray.

The Start menu acts as a launch pad for most of the applications in the computer.

You can start application using the icons on the desktop or the start menu.

The rectangular area on the desktop that is used by an application is called a window.

Every window has a title bar with sizing buttons, menu bar, tool bar and borders.

A window can be moved, resized or closed.

Windows XP allows you to customize the desktop and taskbar.

The Control Panel allows you to install and manage different hardware and software components in your computer.

It is always a good practice to shut down the computer properly before switching the power off.

Files can be of two types - Application and document files. Applications are used to create data files

Command Prompt option on the start menu allows you to use DOS commands and run DOS- based programs

The Clock on the taskbar is used to change the date and time

The Calculator is like an ordinary calculator. WordPad is a simple word processor that is used to enter and store text. Paint is used to draw and colour pictures.

Windows allows you to use multiple applications at the same time.

You can switch between applications using the buttons on the taskbar.

You can also transfer data between two applications.

The Clipboard is a temporary storage for data being copied or moved.

All information on disks are stored as files. Every file has an unique file name. A collection of files is called a folder

Windows explorer is an application that allows you to manage your files and folders.

Windows Explorer provides two Bars. They are Explorer Bar, folders Bar. Explorer Bar provides easy way to move, copy or delete.

Using windows explorer, you can, view the files and folders on your disk.

Create new folders, Copy and move files and folders. Rename files and folders

Delete files and folders

Create shortcuts for frequently used files and applications.

CD-RW can be used as a floppy.

The Search feature allows you to search for files or folders.

The Run command provides an alternate way to start applications and open data files.

Viruses are ugly programs that spoil work. One has to be careful about them.

IMPORTANT POINTS TO BE REMEMBERED FOR THE

Ist CHAPTER AN INTRODUCTION TO WINDOWS XP

1. Windows XP is an Operating System.

2. The opening screen is called the Desktop. It contains icons and Taskbar, Icons are small pictures representing applications. The Taskbar has the Start button. The Quick Launch toolbar and the Systems Tray.

3. The Start menu acts as launch pad for most of the applications in the computer.

4. We can start applications using the icons on the desktop or the Start menu.

5. The rectangular area on the desktop that is used by an application is called a Window.

6. Every window has title bar with sizing buttons, menu ,bar, tool bar and boarders.

7. A Window can be moved, resized or closed.

8. The Control Panel allows you to install and manage different hardware and software components in your computer.

9. It is always a good practice to shut down the Computer properly before switching the power off.

10. When we move the mouse, a pointer move on the screen. This pointer, called the Mouse Pointer.

11. Turn off the computer by the key combinations of Alt=F4 and the click turn off button.

12. Resource Button: This button is used to restore the window to its original size (i.e. to the size before you maximized it.)

13. Maximize Button: Click on this button enlarges the window to fill the entire desktop.

14. Close Button: This button is used to close a window.

15. List Box: These boxes display a list of choices. we can select the one we want by simply clicking on it.

16. OK button in a dialog box, Window will accept our choices

17. Cancel button will make windows ignore the changes and close the dialog box.

18. Blue Underlined Text: Click the blue underline text, it will open the item associated with the text.

19. Green Underlined Text: Click on this term it will provide the definition of the term.

20. Changed View: In order to reclaim more space, we can hide the left pane by clicking the Change View button. If we again click Change View button, the left pane will appear once again. We can also perform the above action manually. We can drag the right pan to the left, so that a right pan may occupy the entire screen.

21. Home: This is the background display that appears on the desk top.

22. Click on screen saver tap in the display prosperities dialog box

23. Control panel provides two views to control panel. Namely (i) Category view, (ii) Classic view.

24. The opening screen of Windows XP is called the Desktop.

25. The two different start menus are usual start menu, and classic start menu.

26. Control Panel allows you to install and manage different hardware and software components in your computers.

27. When we in are in Welcome Screen Ctrl+Alt+Del Key combinations entering in the user name and password dialog box.

28. Closed button is used to close a Window.

2ND CHAPTER: WINDOWS EXPLORER:

1. All information on disks are stored as Files.
   Each file has an unique file name.

2. It is a collection of files is known as Folder
   To start Windows explorer click

3. Start ? All programs ? Accessories ? Window Explores

1. Windows Explorer is an application that allows us to manage our files and folder.

2. Explorer is divided into three categories, namely
   (I)File and Folder Task (ii) Other places (iii) Details

3. A small yellow icon represents each folders

4. Create new folders, copy and move files and folders. Rename files and folders.

5. Create shortcuts for frequently used files and applications.

6. To Open a new folder:
   Click File ? New ? Folder (A new folder is created temporary)

7. A plus sign to the left of the folder icon in Folder Bar indicates the presence of Subfolders within this folder

8. + sign to display a list of the subfolder. Sign will hide the details.

9. If there is no +sign to the left of a folder icon, it means that the folder does not have any subfolder.

10 Views will help us in finding a forgotten file

11. Windows Explorer provides two Bars. They are explorer Bar, Folders Bar, Explorer Bar provides easy way to move, copy or delete.

12. Using Windows, Explorer, we can, View the files and folders on our Disk.

13. Moving and Copying Files and Folders:
    Once the files are selected, we can move or copy them using Cut, Copy and Paste in three different ways.

(i) Click on the Ed

(ii) Right click on short cut menu

(iii) We can use th (Ctrl+c) to copy

14. Difference between folders untouched removes the files or destination location

15. CD-RW can be used

16. CD-R disk cannot be

17. Click File ? Rename

18. Recycle Bin is like th

19. The Search feature

20. The Run command applications and ope

21. To use the Run com Run. Type the file n

22. File name is made u (i) main component

23. The dot (or full stop) Extension

24. Start Paint: Click on

25. Windows XP allows (i) Keyboard shortcu

26. Shortcut Method to K Paint. To do it, first Accessories / Paint

27. What is new in Win
(a) Effective mu
(b) Easier Instal

(c) Redesigned Start Menu.

(d) Taskbar changes and Enhancements.

(e) Notification area.

(f) Better Audio and Video features

(g) CD Burning

(h) Search Companion

(i) Enhanced Auto play Feature

(j) More games.

(k) Remote Desktop connection

(l) A more useful win key.

(m) Improvement for portable Computer.

(n) More Help and Network Connectivity.

(o) Multiple monitor support for both desktop and laptop

(p) Backup and Automated system recovery.

(q) Offline files.

(r) Remote Desktop

(s) Protected Memory Management

(t) System file protection and system Restore.

(u) Device Driver Rollback.

(v) Compatibility with windows 9x Applications.

28. Viruses come in three basic flavours. There are

(i) File Infectors

(ii) Boot sector viruses.

(iii) Trojan horse viruses

Viruses are very dangerous programs which spoil work. Every one should be careful when Operating the System.

Abbreviations

ALU	Arithmetic Logic Unit
ASCII	American Standard code for Information Interchange
ATM	Automatic Teller Machine
BIT	Binary Digit
CAD	Computer Aided Design
CPU	Central Processing Unit
CD	Compact Disk
Dbase	Data Base
DOS	Disk Operating System
Dpi	Dots per Inch
EEProm	Electrically Erasable Programmable Read Only Memory
FDDI	Fiber Distributed Data Interface
FTP	File Transfer Protocol
FIFO	First in First Out
GR	Giga Bytes
GUI	Graphical User Interface
HTTP	Hypertext Transfer Protocol
IC Chip	Integrated Circuits Chip
IC ANN	International Corporation for Assigned Names and Numbers
IC ANN	International Corporation; for Assigned Names and Numbers
IP	internet Protocol
ISP	Internet Service Provider
LAN	Local Area Network
LSB	Least Significant Bit
TCP	Transmission Control Protocol
MAN	Metropolitan Area Network
MODEM	Modulator Demodulator
MSB	Most Significant Bit
MB	Mega Bytes

MICR	Magnetic Ink Character Recognition
MSDOS	Microsoft Disk Operating System
NIS	Network Interface Card
OSI	Open System Interconnection
OS	Operating System
OCR	Optical Character Recognition Software
OMR	Optical Mark Recongnition
Pixel	Picture Element
PC	Personal Computer
PDA	Personal Digital Assistant
PROM	Programmable Read Only Memory
SJF	Shortest Job First
RAM	Random Access Memory
ROM	Read Only Memory
UTP	Unshielded Twisted Pair
WWW	World Wide Web
WAN	Wide Area Network

III. INTERNAL EXAMINATION

MARKS : 50

PRACTICAL I (TYPEWRITING)

INTERNAL ASSESSMENT - 25 MARKS

i)	Record work : Preparation of Albums, Names of parts Cleaning & Oiling, Envelope addressing, etc.,	….5 marks
ii)	Maintenance of files and Note Book & etc.,	….5 marks
iii)	Performance in monthly tests & terminal exams	….5 marks
iv)	Attendance & Attitude	….5 marks
v)	Typewriter maintenance in the class room	…..5 marks

PRACTICAL II (COMPUTER OPERATION)

INTERNAL ASSESSMENT - 25 MARKS

i)	Record work : Chapter I (Introduction to Windows XP) and Chapter II (Windows Explorer)	….5 marks
ii)	Maintenance of files and work Book & etc.,	….5 marks
iii)	Performance in monthly tests & terminal exams	….5 marks
iv)	Attendance & Attitude	….5 marks
v)	Computer system maintenance in the class room	…..5 marks

IV. Model Question Paper

TYPEWRITING - (PRACTICAL)

XI. Standard **English** **Time : 15Mts.**

PART - A **Marks : 50**

(Maximum Marks:150)

Land and Labour in modern economic parlance are the basic factors of creation on this planet. Between the two, labour is supreme, for it is he who makes conscious and deliberate efforts to unravel the laws and mysteries of land and makes use of them for his own development. Indeed, his own development is the be-all and end-all of his entire conscious effort. Looked at in this light, human development has been the objective of human Endeavour ever since Adam and Eve first appeared on this earth. Yes in the beginning, the thrust of human Endeavour was in the direction of spiritual development, but now it is in the direction of material development.

In the earlier years, it was primarily the responsibility of an individual to develop himself, but now it has become the responsibility of the State to arrange for all round development of human beings. This has put human beings in new light. The shift in emphasis from individual effort and spiritual development to State planning and material development has turned human into a factor of production an economic. Resource to be brought up developed and used for material development of the country as a whole. Population growth at an alarming rate comes in the way of these social objectives in a big way. Rapid growth of population, therefore, has rightly been cause of concern in jour country since the early fifty's. However, popular perception in this regard has undergone a sea change over the last couple of years.

In early fiftys, socio-economic implications of population growth were a matter of concern largely in the context of the argument that rapid population growth is an obstacle to development. But now it is increasingly recognized that the relationship between population growth and development is not that simple it is rather much more complex. In 1994, it has been forcefully argued and accepted that rapid population growth itself is in many ways the result of a lack of development. In course of time many other dimensions have been added to this relationship which was once viewed to be unidirectional. After the ICPD Conference population issue is placed in a much large context of sustainable development. Over the years, the concept of development little has undergone a change.

In the context of people-centered development, many dimensions like gender equity, women's empowerment, environmental degradation, uplift of the weaker sections and human resource development have assumed considerable significance. From this point of view, it is essential to look in to the implications of population.

PART : B Question No. 1

Type the following statement and rule up :-

Statement Showing Particulars of Documents registered. //caps

Places	1990-91 No. of Documents registered	Value of Property	Expenditure	Receipts
		Rs.	Rs.	Rs.
Thanjavore	31,780	4,920,154	765,103	29,297
Erode	19,450	4,835,270	922,7940	42,1415
Cuddalore	51,279	6030,210	92,27,410	4,90,320
Kanya-Kumari	58,261	7,030,495	996317	42,1415
Tambaram	38,410	6,976,600	822,413	371,410

Question No. 2

Type the following CREDIT NOTE and rule up:-

CREDIT NOTE

Telephone: 2566842
Telegrams: "Ramu"

Post Box No. 187
80 Kamarajapuram,
Chennai - 600 035

No. 360/2002

2nd June 2002.

M/S. Rajendran & Co.,
15, Church Gate,
Bombay - 400 058.

Cr. by THE FASHION HOUSE

Details of Invoice	Particulars	Amount Rs. P.
21st May 2002 Inv. No. 84	By 100 Nos. two yards Dhotis (Handloom) at Rs. 15/= not having bn. ordered	1,500 00
—do—	By. 50 Nos. Napkins at Rs. 2/= not having bn. ordered.	100 00
	Total	1,600 00
	(Rupees one Thousand and Six hundred only)	

for THE FASHION HOUSE,

Head clerk.

Question No. 3

JAGADEESAN, A.C.A
Chartered Accountant.

Telephone: 353(38)
45 (St.) Kalinga-nayagar
Kamaraj Nagar
Coimbatore 641 009.

18th August 2002.

Messrs. Rathi Finance Ltd.,
625 Gandhipuram V cross,
Coimbatore 641 012.

Dear Sirs,

Sub: audit of accounts - Certain clarification required to finalise the ~~accounts~~ statements.

We have audit taken up the of your Company and on Scrutiny we find that the furnished particulars by you are not sufficient to finalise the Statements. We request you to depute your Chief accountant w. instructions to meet our Managers before the end of this month.

Our managers wd. give necessary instruction. // We do hope th. you would give your fullest Co-operation to enable us to complete the finalisation of the accounts of your Company.

Thanking you,

Yours faithfully
(JAGADEESAN)
C.A.

Question No. 4

Government of Tamil Nadu

Abstract

(1990) Pongal Festival - Grant of pongal prize amounts - Ordered.

Finance Department

G.O. Ms. No. 1110 Dt. 10th Jan. 1990. Stat.

Read / following:

From the Union Madras, (Non-gazetted Officers)

Letter / K. No. 200/T.N./89, dated 25th Dec. 1989.

Order:

The Govt. sanction a lumpsum / pongal prize amount of Rs. 400 (Rupees four hundred only) / to all regular employees of Govt. employees / Govt. a/ of Local Bodies and aided educational institutions including teachers.

2. Additional funds, if any will be provided in the final modified Appropriation for 1989-90. The heads of Depts. are requested to take this expenditure into a/c. while sending proposals for final modified Stat Appropriation 1989-90.

(By order of / Governor)

N. NARAYANAN,
Secretary to Govt.

To
All Heads of Department

Forwarded/By Order

S.6.

PART : C

Qn.No: 5 Mechanism **10 x 2 = 20**

Answer any ten of the following questions. Each question carries equal marks.

01. Who invented the first Typewriter ? When?

02. How many kinds of Typewriter there? And what are they?

03. How will you Identify your Typewriter?

04. How many thumb wheels are there ? Mention its uses?

05. How many kinds of Cylinders? And What are they?

06. Mention any 2 sizes of the Cylinder?

07. What are the guide fingers? And Which is the guide row?

08. What will happen when the draw card is cut off?

09. Mention any 2 Non-Character keys?

10. How many Character keys are there in the key board?

11. When cleaning and oiling has to be done?

12. What are the accessories required for cleaning the typewriter?

13. What is the use of a wire brush?

14. Mention the two types of envelope?

15. How will you clean the nickel parts?