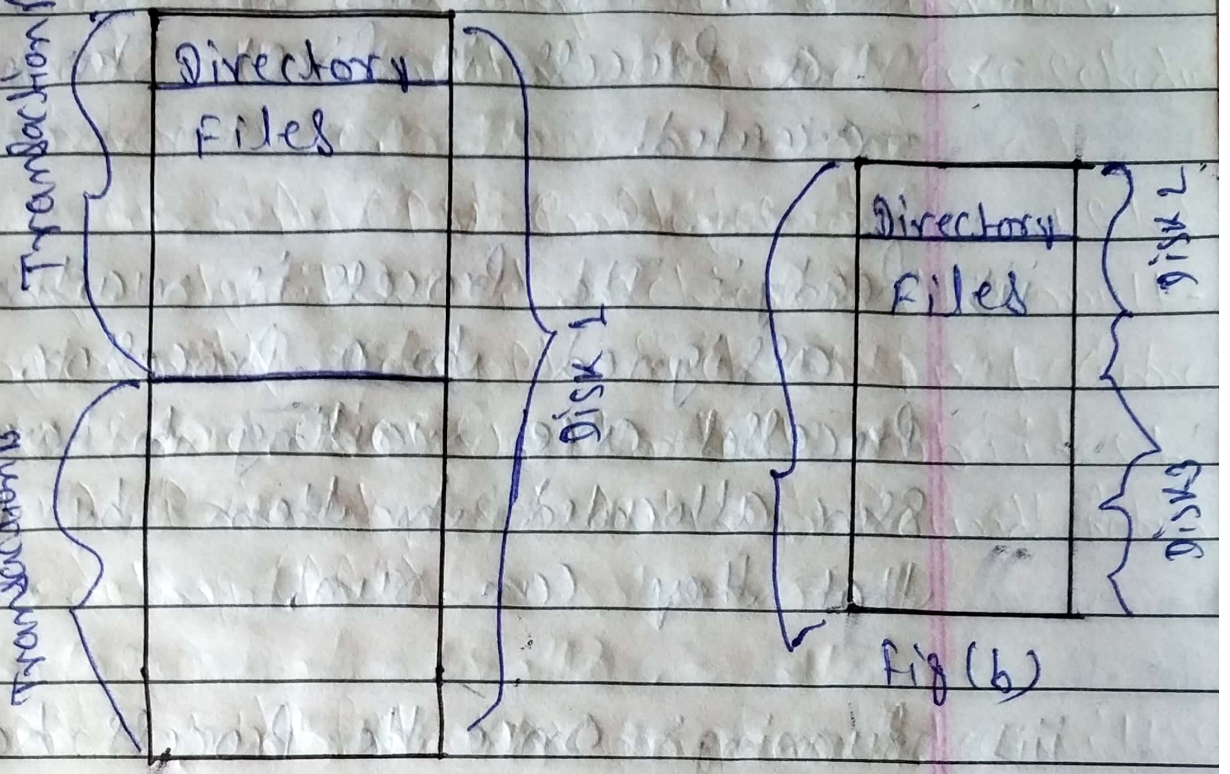


Fig (a) Fig (b)

* A Typical file System organisation *

Topic:- Process.

⇒ A Process is basically a Program execution. The execution of the Process Progress in sequential fashion.

Topic:- Process Lifecycle.

⇒ When a Process executes, it passed through different steps. These stages may differ in different O/s and the name of these states are also not standardised. In general, a Process can have 5 states at a time of the following

i) Start :- This is the Initial State when a Process is first started or created.

ii) Ready :- The Process is waiting to be assigned to a Processor. Ready Processes are waiting to have the Processor allocated to them by the OS so that they can run.

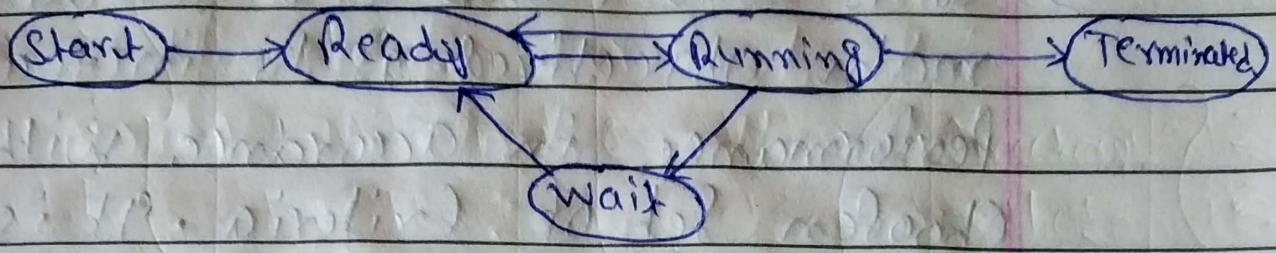
iii) Running :- Once the Process has been assigned to a Processor by the OS Scheduler. The Process State is said to running and the Processor executes its instructions.

iv) waiting :- Process moves into waiting State if it needs to wait for a resource such as waiting for user input or, waiting for a file to become available.

v) Terminated or, Exit :-

⇒ Once the Process finishes. its execution or it is terminated by the OS, it moved to the terminated State where it waits to be removed from main

memory.



Topic :- ~~Scheduling~~. Schedular

⇒ Schedular are Special System Software which handle Process Scheduling in various ways. Their main task is to Select the Job to be Submitted into the System and to decide which Process to run. Schedules are of 3 types —

i) Long term Scheduler :- It is also called a Job Scheduler. A long term Scheduler determine which Programs are admited to the System for Processing. It Selects Processes from the queue and load them into memory for execution. Process loads into the memory for CPU Scheduling. The long term Scheduler may not be available or minimal time-Sharing os have no long-term Scheduler. when a Process changes the State from new to ready then there is use of long-term Scheduler.

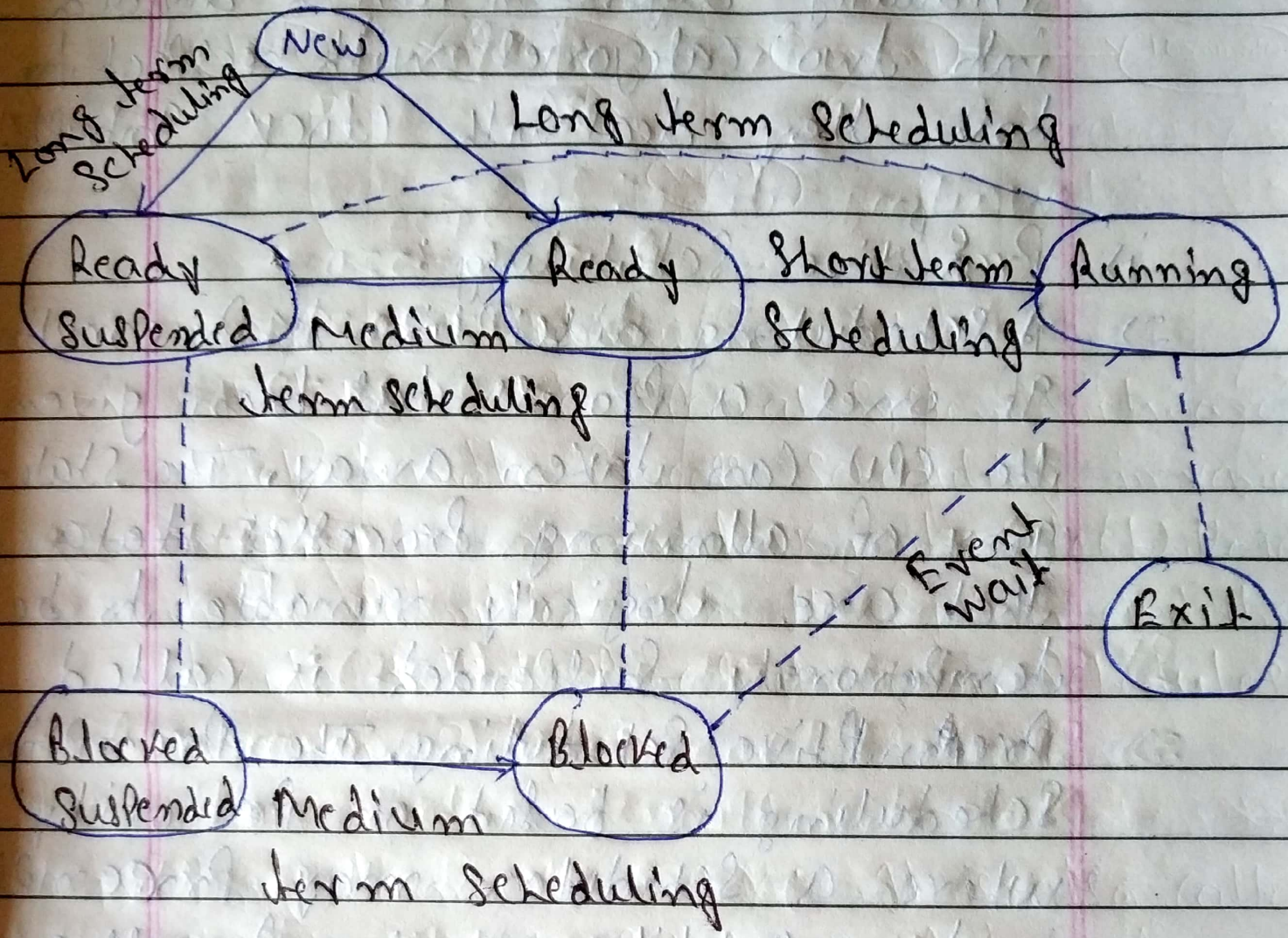
ii) Short term Scheduler :-

=> It is also called CPU Scheduler. Its main objective is to increase System Performance in accordance with the Choosen Set of Criteria. It is the change of ready State to running State of the Process. CPU Scheduler among the Processes that are ready to execute and allocate CPU to one of them. Short term Scheduler also known as dispatchers, The decision which Process to execute next. Short term Schedulers are faster than long-term Schedulers.

iii) Medium term Scheduler :-

=> It is a Part of Swapping. It removes the Processes from the memory. It reduces the degree of multi-Programming. A running Process may become Suspended, if it makes an I/O request. A Suspended Process cannot make any Progress towards completion. In this condition to remove the Process from memory and make Space for other Processes. The Suspended Process is moved to the Secondary Storage, This Process

is called Swapping.



TOPIC :- Scheduling.

⇒ Scheduling refers to a set of Policies and mechanism supported by OS that Control the order in which the work to be done is completed. A Scheduler is a operating System Program that Select the next Job