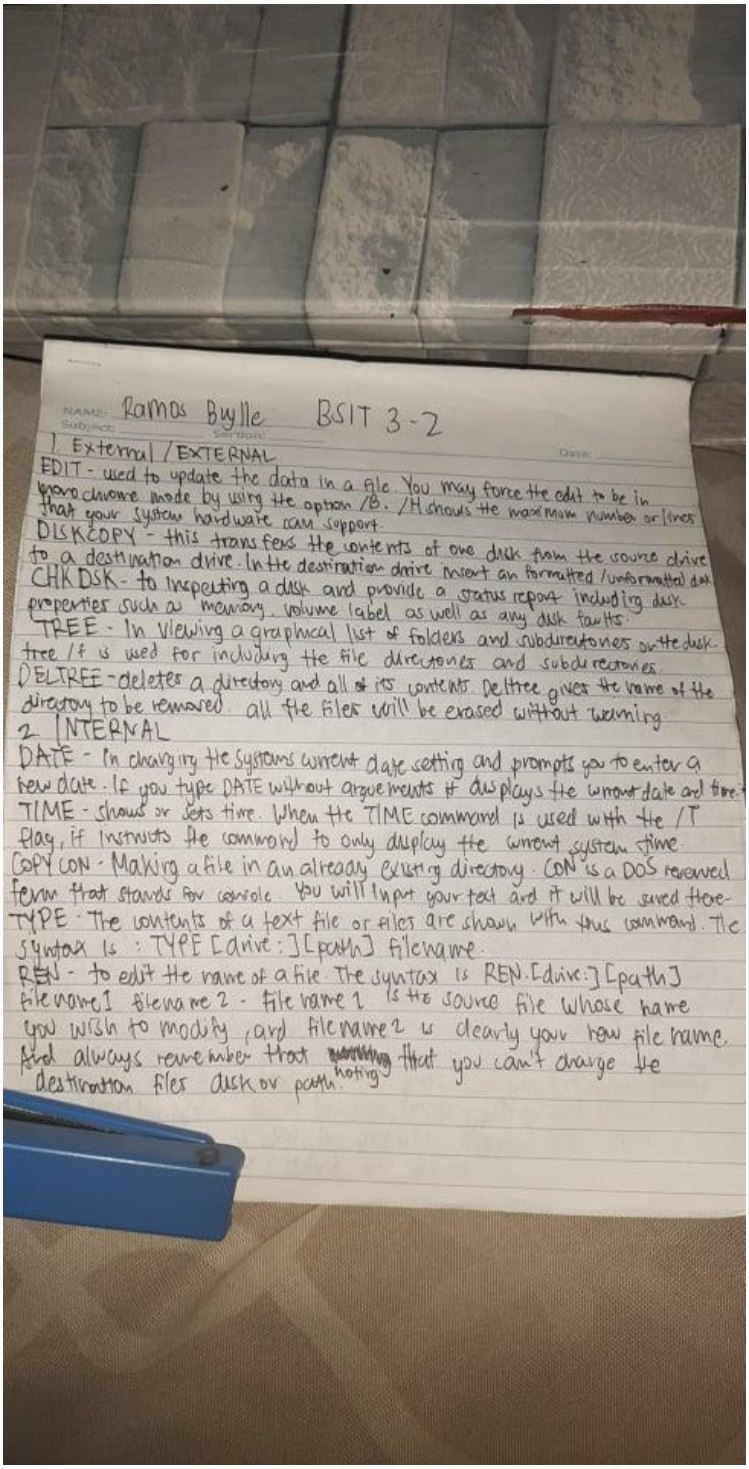
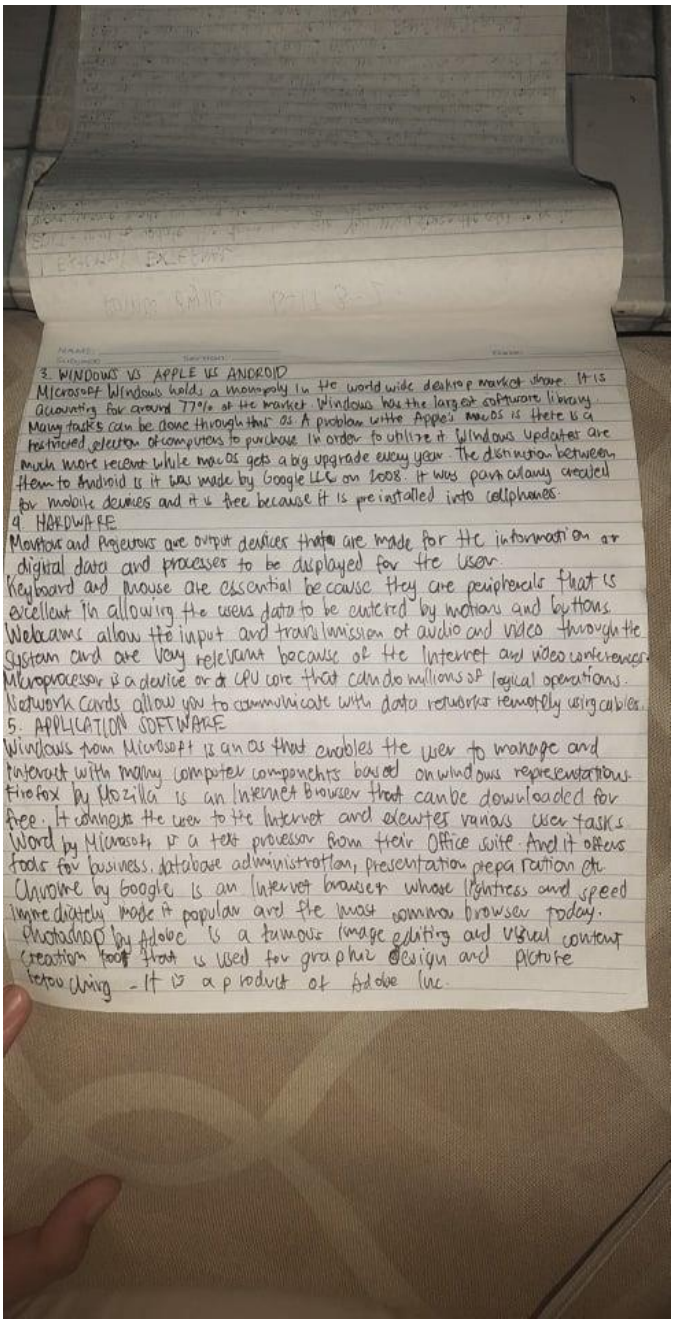
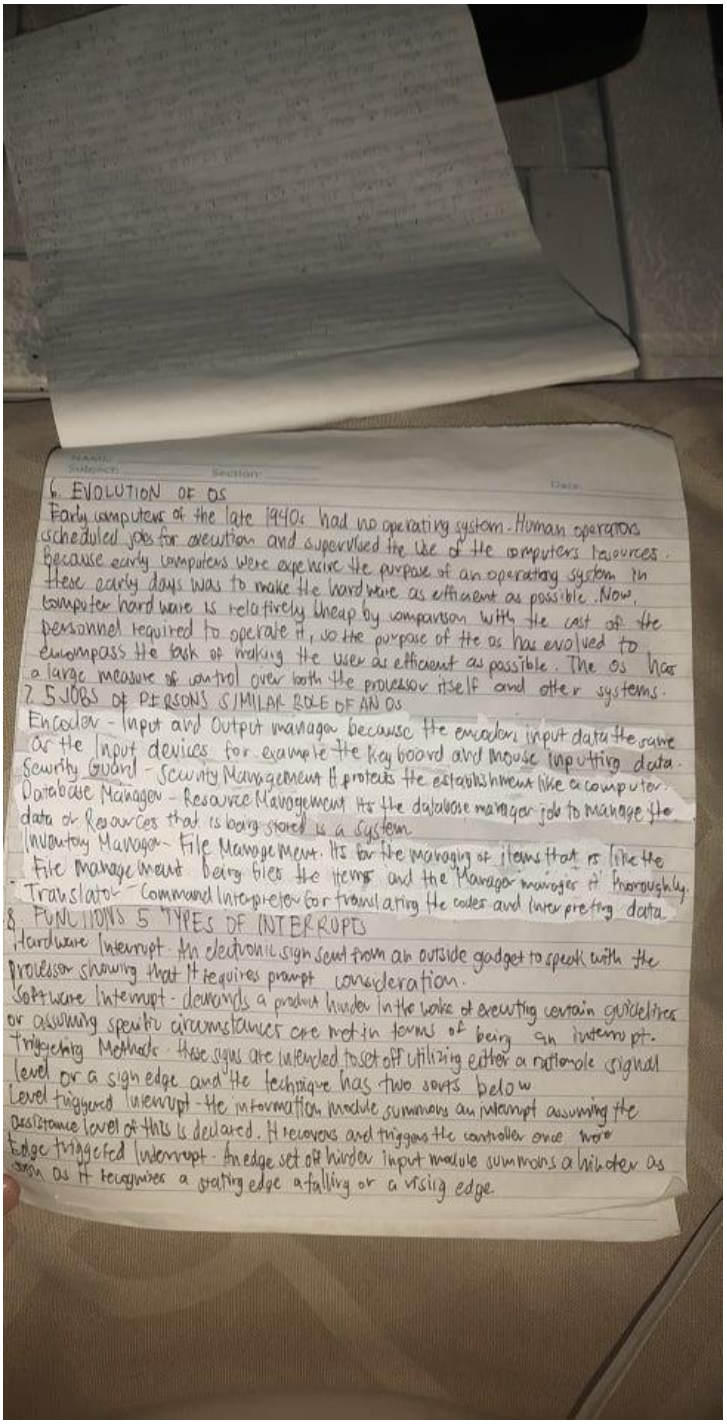
RAMOS BRYLLE BSIT 3-2 MIDTERMS PLATFORM TECHNOLOGY

TEST 1:

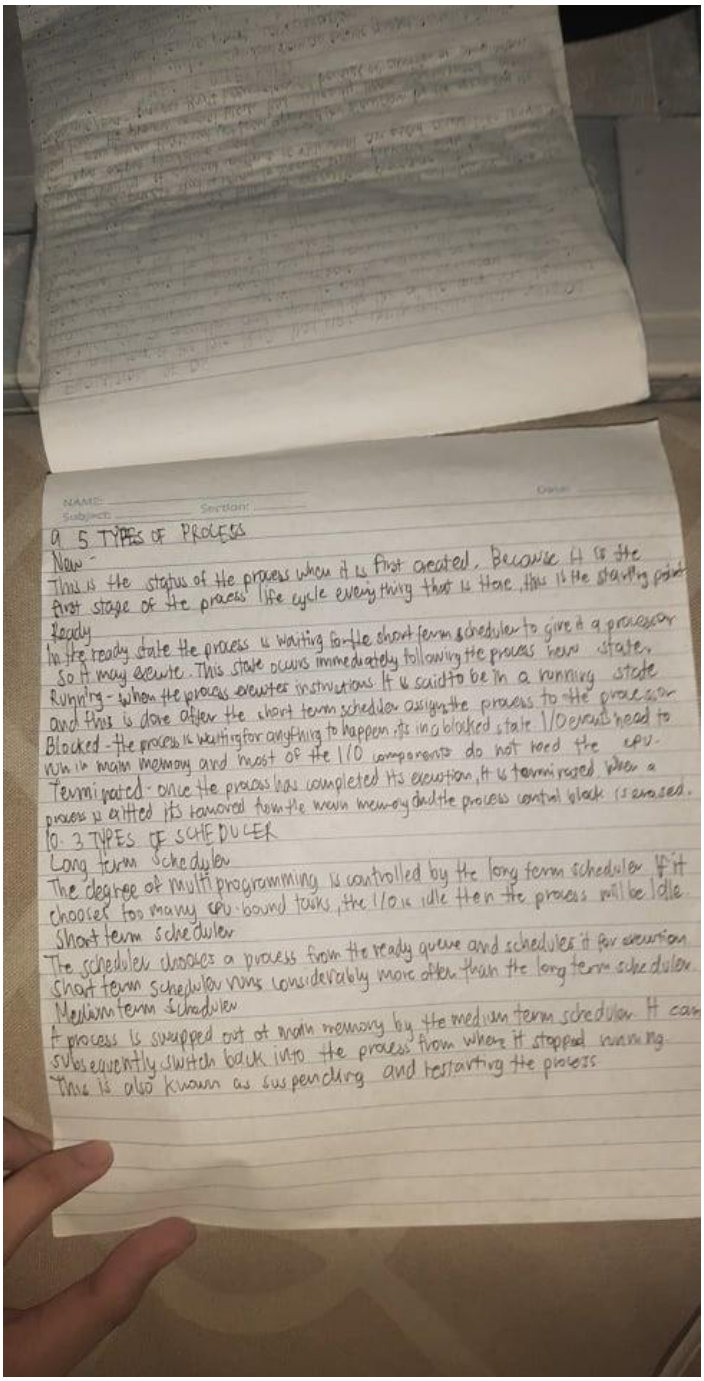




3. WINDOWS VS APPLE VS ANDROID
Microsoft Windows holds a monopoly in the world wide desktop market share. It is accounting for around 77% of the market Windows has the largest software library. Many tasks can be done through this as A problem with Apple's macOS is there is a restricted selection of computers to purchase. In order to utilize it Windows Updates are much more recent while macOS gets a big upgrade every year. The distinction between them to Android is it was made by Google LLC on 2008. It was particularly created for mobile devices and it is free because it is pre-installed into cellphones.
4. HARDWARE
Monitors and Projectors are output devices that are made for the information or digital data and processes to be displayed for the user.
Keyboard and mouse are essential because they are peripherals that is excellent in allowing the users data to be entered by motions and buttons.
Webcams allow the input and transmission of audio and video through the system and are very relevant because of the Internet and video conferences.
Microprocessor is a device or a CPU core that can do millions of logical operations.
Network Cards allow you to communicate with data networks remotely using cables.
5. APPLICATION SOFTWARE
Windows from Microsoft is an os that enables the user to manage and interact with many computer components based on windows representations.
Firefox by Mozilla is an Internet Browser that can be downloaded for free. It connects the user to the Internet and elevates various user tasks.
Word by Microsoft is a text processor from their Office suite. And it offers tools for business, database administration, presentation preparation etc.
Chrome by Google is an Internet browser whose lightness and speed improved greatly made it popular and the most common browser today.
Photoshop by Adobe is a famous image editing and visual content creation tool that is used for graphic design and picture retouching - It is a product of Adobe Inc.



6. EVOLUTION OF OS
Early computers of the late 1940s had no operating system. Human operators scheduled jobs for execution and supervised the use of the computers resources. Because early computers were expensive the purpose of an operating system in these early days was to make the hardware as efficient as possible. Now, computer hardware is relatively cheap by comparison with the cost of the personnel required to operate it, so the purpose of the os has evolved to encompass the task of making the user as efficient as possible. The os has a large measure of control over both the processor itself and other systems.
7. 5 JOBS OF PERSONS SIMILAR ROLE OF AN OS
Encoder - Input and Output manage because the encoders input data the same as the input devices for example the keyboard and mouse inputting data.
Security Guard - Security Management it protects the establishment like a computer.
Database Manager - Resource Management its the database manager job to manage the data or Resources that is being stored is a system.
Inventory Manager - File Management. Its for the managing of items that is like the File Management being files the items and the Manager manages it thoroughly.
Translator - Command Interpreter for translating the codes and interpreting data.
8. FUNCTIONS 5 TYPES OF INTERRUPTS
Hardware Interrupt - An electronic sign sent from an outside gadget to speak with the processor showing that it requires prompt consideration.
Software Interrupt - demands a process hinder in the wake of executing certain guidelines or assuming specific circumstances are met in terms of being an interrupt.
Triggering Methods - These signs are intended to set off utilizing either a rationale signal level or a sign edge and the technique has two sorts below
Level triggered Interrupt - the information module summons an interrupt assuming the assistance level of this is declared. It recovers and triggers the controller once more
Edge triggered Interrupt - An edge set off hinder input module summons a hinderer as soon as it recognizes a grating edge a falling or a rising edge.


NAME:
Subject: Section: Date:

Q. 5 TYPES OF PROCESS

New -
This is the status of the process when it is first created. Because it is the first stage of the process life cycle every thing that is true. this is the starting point

Ready
In the ready state the process is waiting for the short term scheduler to give it a processor so it may execute. This state occurs immediately following the process new state.

Running - when the process executes instructions it is said to be in a running state and this is done after the short term scheduler assigns the process to the processor

Blocked - the process is waiting for anything to happen. its in a blocked state I/O event need to run in main memory and most of the I/O components do not need the cpu.

Terminated - once the process has completed its execution, it is terminated when a process is exited its removed from the main memory and the process control block is erased.

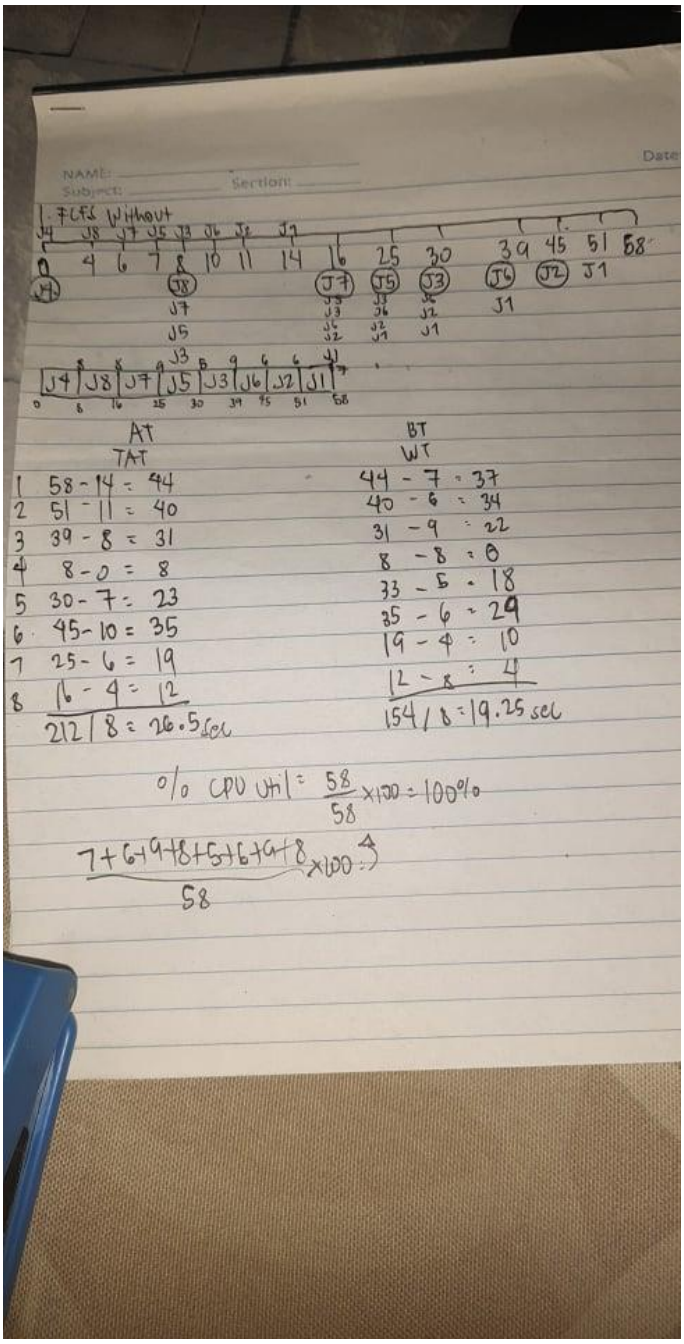
Q. 3 TYPES OF SCHEDULER

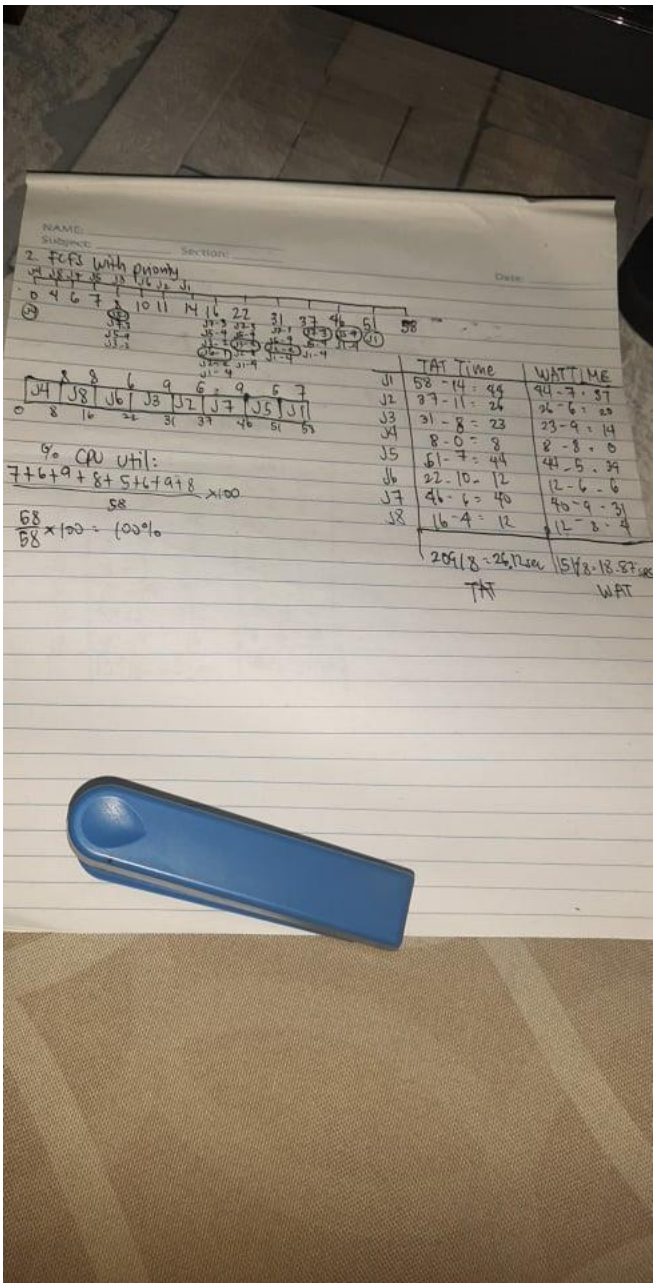
Long term scheduler
The degree of multiprogramming is controlled by the long term scheduler if it chooses too many cpu-bound tasks, the I/O is idle then the process will be idle

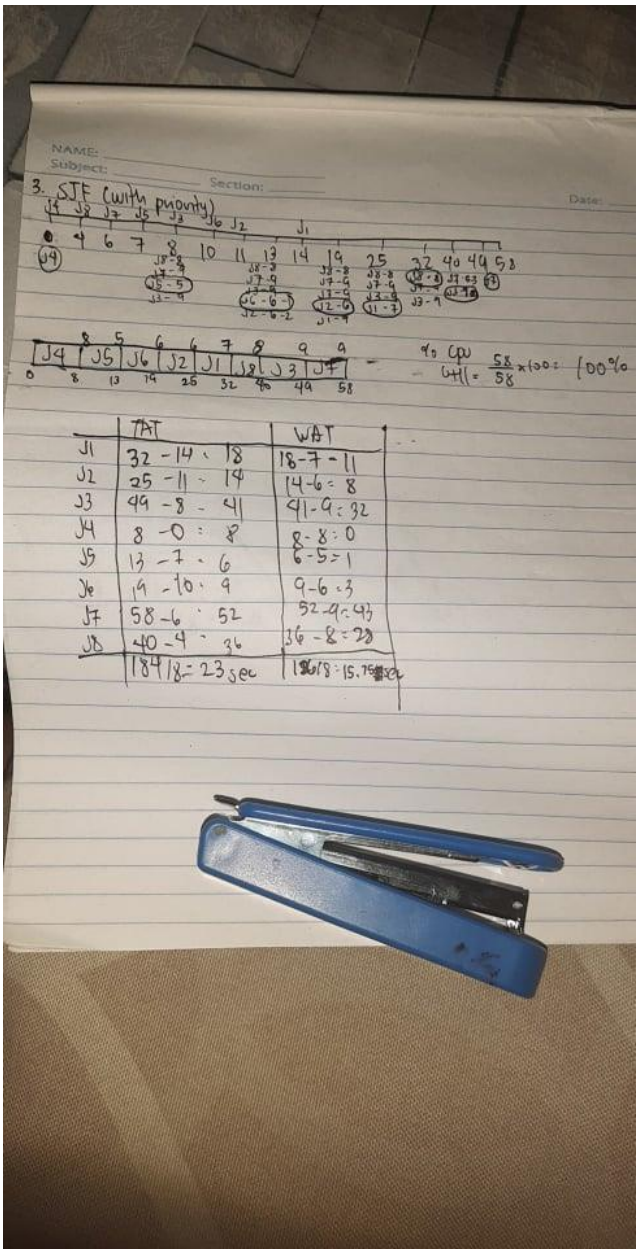
Short term scheduler
The scheduler chooses a process from the ready queue and schedules it for execution. Short term scheduler runs considerably more often than the long term scheduler.

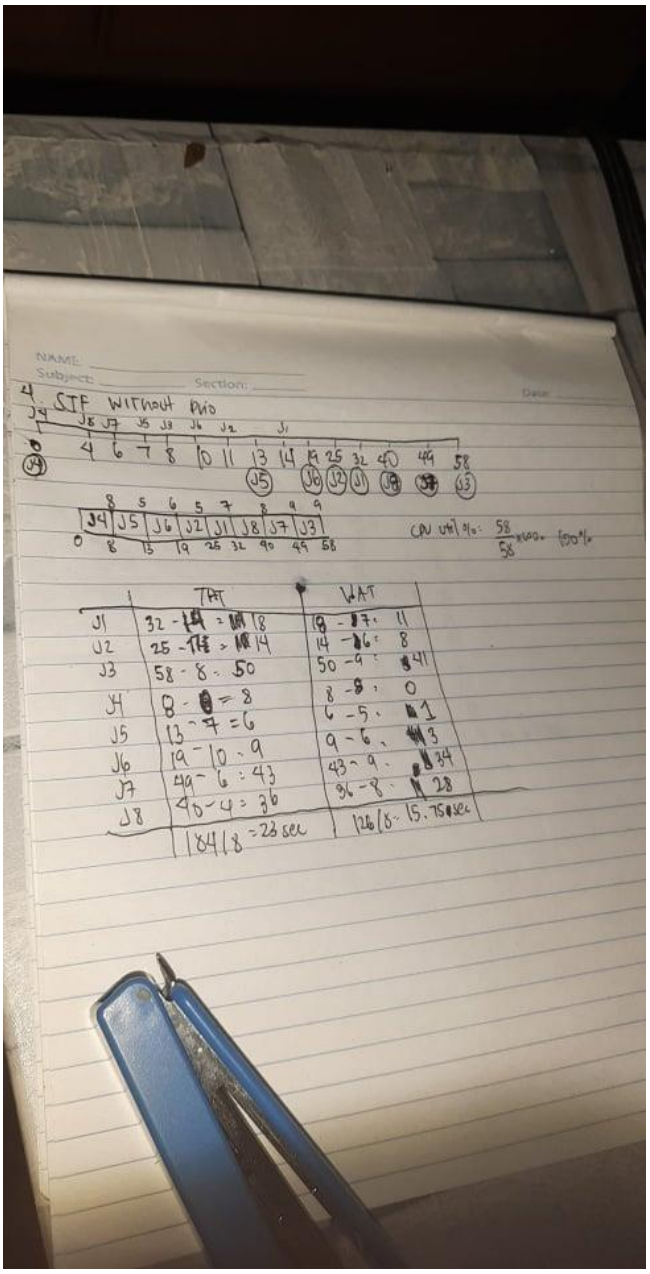
Medium term scheduler
A process is swapped out of main memory by the medium term scheduler. It can subsequently switch back into the process from where it stopped running. This is also known as suspending and restarting the process

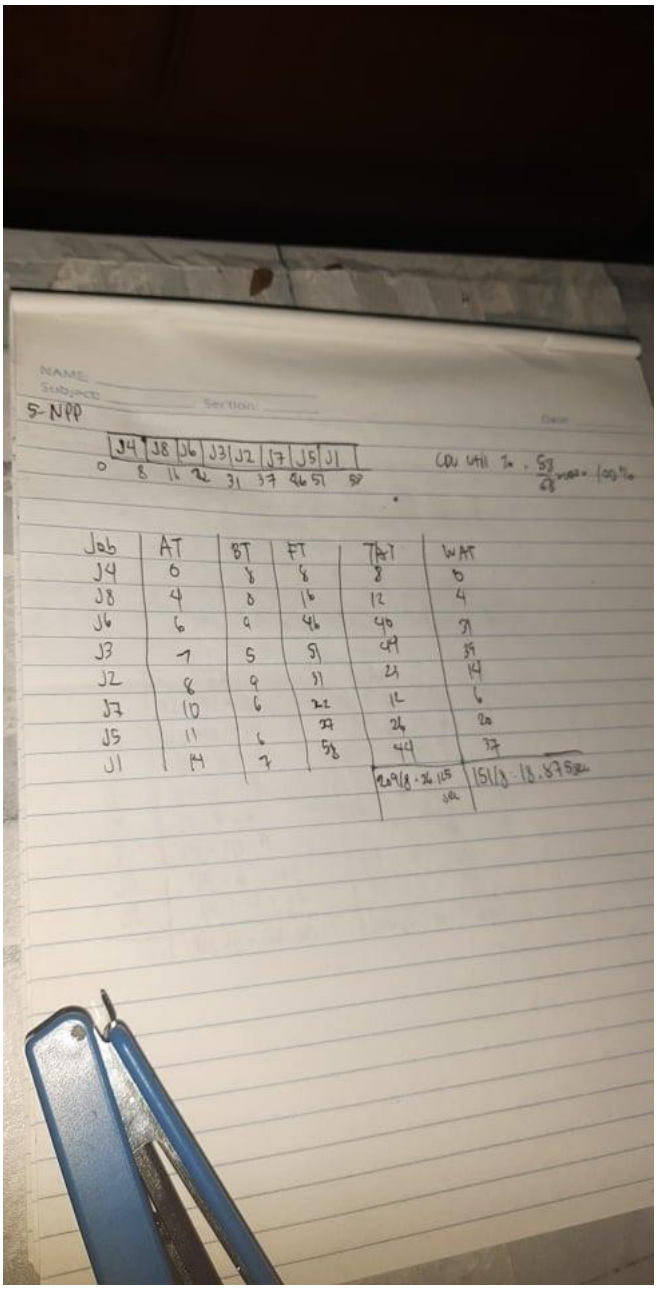
TEST 2:

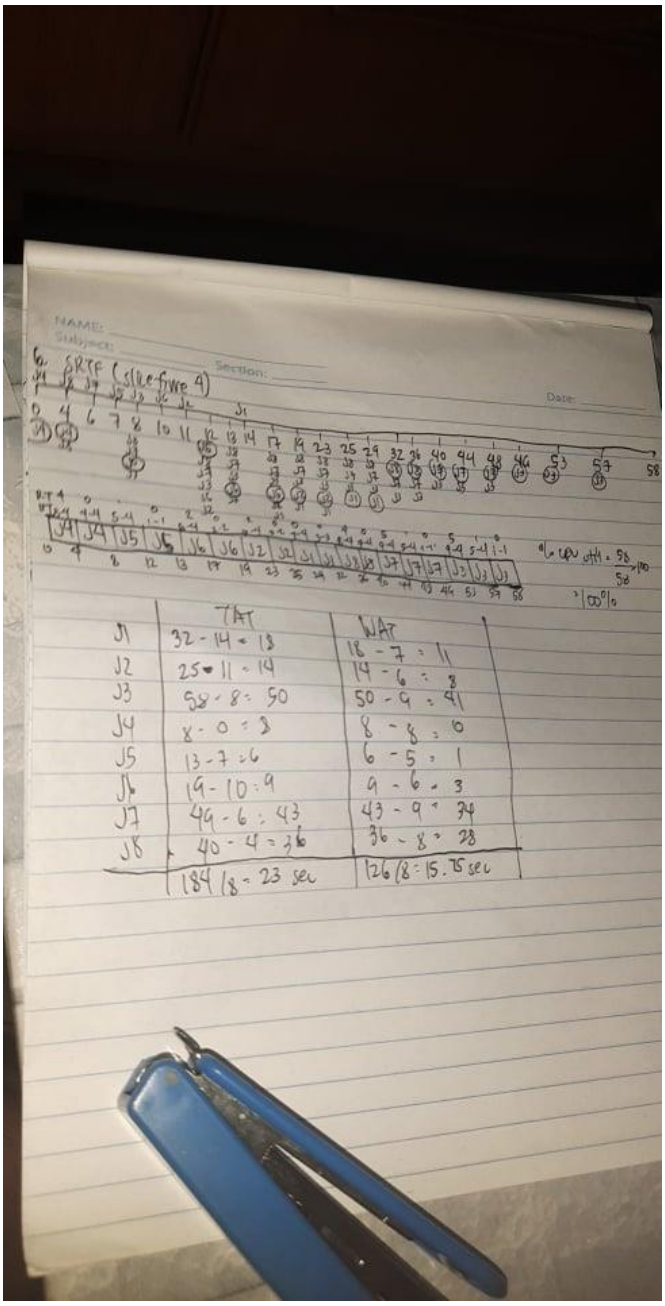

NAME:
Subject:
Section:
Date
FCFS Without
AT
TAT
BT
WT
1 58 - 14 = 44
2 51 - 11 = 40
3 39 - 8 = 31
4 8 - 0 = 8
5 30 - 7 = 23
6 45 - 10 = 35
7 25 - 6 = 19
8 16 - 4 = 12
212 / 8 = 26.5 sec
44 - 7 = 37
40 - 6 = 34
31 - 9 = 22
8 - 8 = 0
33 - 5 = 18
35 - 6 = 29
19 - 4 = 10
12 - 8 = 4
154 / 8 = 19.25 sec
% CPU Util = 58/58 x 100 = 100%
7+6+9+8+5+6+4+8 / 58 x 100 =

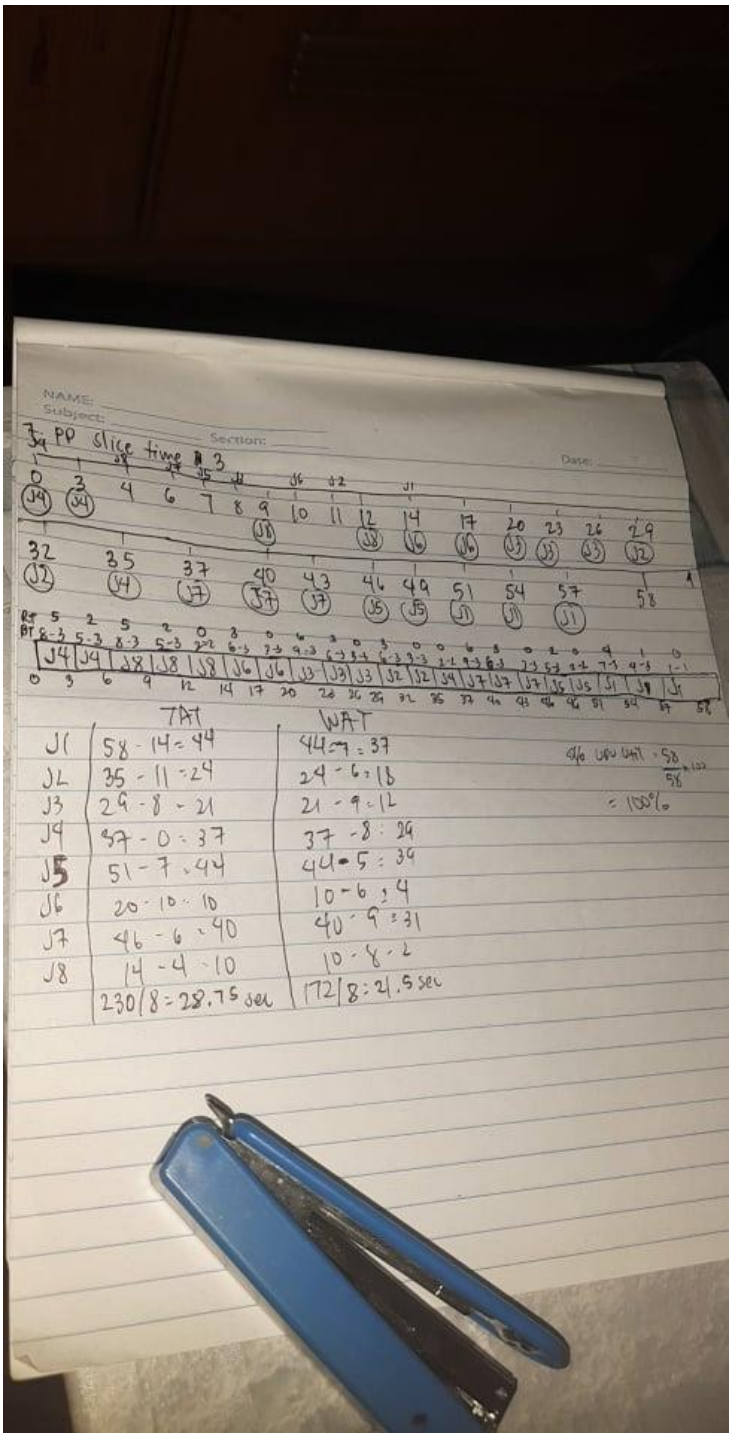

NAME:
Subject:
Section:
Date:
2. FCFS with priority
J4 J8 J6 J3 J2 J7 J5 J1
0 4 6 7 8 10 11 14 16 22 31 37 46 51 58
J4 J8 J6 J3 J2 J7 J5 J1
8 6 9 6 9 6 7
8 16 22 31 37 46 51 58
% CPU Util:
7+6+9+8+5+6+9+8 / 58 x100
58/58 x100 = 100%
TAT Time
WAIT TIME
J1 58-14=44 44-7=37
J2 37-11=26 26-6=20
J3 31-8=23 23-9=14
J4 8-0=8 8-8=0
J5 51-7=44 44-5=39
J6 22-10=12 12-6=6
J7 46-6=40 40-9=31
J8 16-4=12 12-8=4
209/8=26.12sec
151/8=18.87
TAT
WAIT

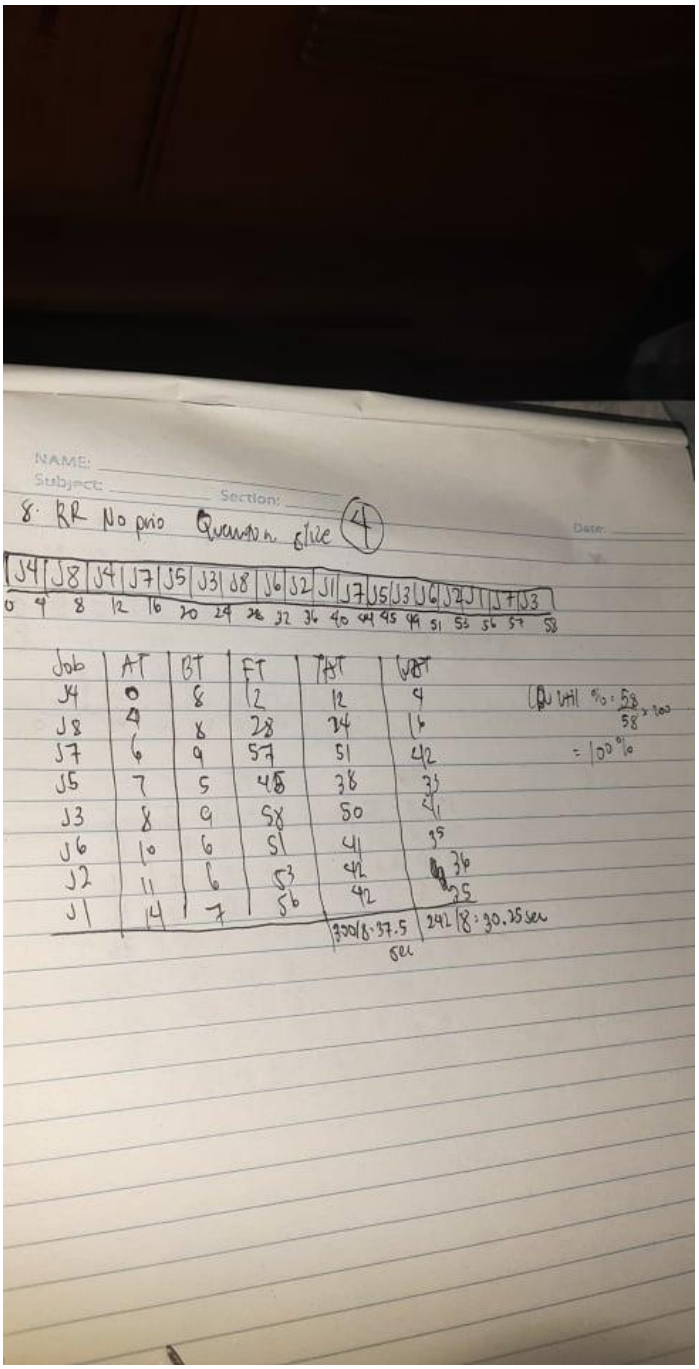

NAME:
Subject:
Section:
Date:
3. SJF (with priority)
J4 J8 J7 J5 J3 J6 J2 J1
4 6 7 8 10 11 13 14 19 25 32 40 49 58
(14)
J4 J5 J6 J2 J1 J8 J3 J7
0 8 13 14 25 32 40 49 58
% CPU Util = 58/58 x 100 = 100%
TAT
WAT
J1 32 - 14 = 18 18-7 = 11
J2 25 - 11 = 14 14-6 = 8
J3 49 - 8 = 41 41-9 = 32
J4 8 - 0 = 8 8-8 = 0
J5 13 - 7 = 6 6-5 = 1
J6 14 - 10 = 4 4-6 = 3
J7 58 - 6 = 52 52-4 = 48
J8 40 - 4 = 36 36-8 = 28
184/8 = 23 sec
18/8 = 15.75 sec


NAME:
Subject:
Section:
Date:
4. SJF WITHOUT PRIO
J4 J8 J7 J5 J3 J6 J2 J1
0 4 6 7 8 10 11 13 14 19 25 32 40 44 58
J4 J5 J6 J2 J1 J8 J7 J3
8 5 6 5 7 8 9 9
0 8 13 19 25 32 40 49 58
CPU Util %: 58/58 x100 = 100%
TAT
WAT
J1 32 - 14 = 18 | 18 - 7 = 11
J2 25 - 11 = 14 | 14 - 6 = 8
J3 58 - 8 = 50 | 50 - 9 = 41
J4 8 - 8 = 8 | 8 - 8 = 0
J5 13 - 7 = 6 | 6 - 5 = 1
J6 19 - 10 = 9 | 9 - 6 = 3
J7 49 - 6 = 43 | 43 - 9 = 34
J8 40 - 4 = 36 | 36 - 8 = 28
184/8 = 23 sec
126/8 = 15.75 sec


NAME:
Subject:
Section:
5- NPP
J4 J8 J6 J3 J2 J7 J5 J1
0 8 16 22 31 37 46 51 58
Job AT BT FT TAT WAT
J4 0 8 8 8 0
J8 4 8 16 12 4
J6 6 9 46 40 31
J3 7 5 51 44 39
J2 8 9 31 23 14
J7 10 6 22 12 6
J5 11 6 37 26 20
J1 14 7 58 44 37
229/8 = 28.625
151/8 = 18.875


NAME:
Subject:
Section:
Date:
6. SRTF (slice time 4)
TAT
WAT
J1 32 - 14 = 18 | 18 - 7 = 11
J2 25 - 11 = 14 | 14 - 6 = 8
J3 58 - 8 = 50 | 50 - 9 = 41
J4 8 - 0 = 8 | 8 - 8 = 0
J5 13 - 7 = 6 | 6 - 5 = 1
J6 19 - 10 = 9 | 9 - 6 = 3
J7 49 - 6 = 43 | 43 - 9 = 34
J8 40 - 4 = 36 | 36 - 8 = 28
184/8 = 23 sec | 126/8 = 15.75 sec


NAME:
Subject:
Section:
Date:
7x PP slice time = 3
TAT
WAT
J1 58 - 14 = 44
J2 35 - 11 = 24
J3 24 - 8 = 21
J4 37 - 0 = 37
J5 51 - 7 = 44
J6 20 - 10 = 10
J7 46 - 6 = 40
J8 14 - 4 = 10
230/8 = 28.75 sec
44 - 7 = 37
24 - 6 = 18
21 - 9 = 12
37 - 8 = 29
44 - 5 = 39
10 - 6 = 4
40 - 9 = 31
10 - 8 = 2
172/8 = 21.5 sec
= 100%



NAME:
Subject: Section:
Date:

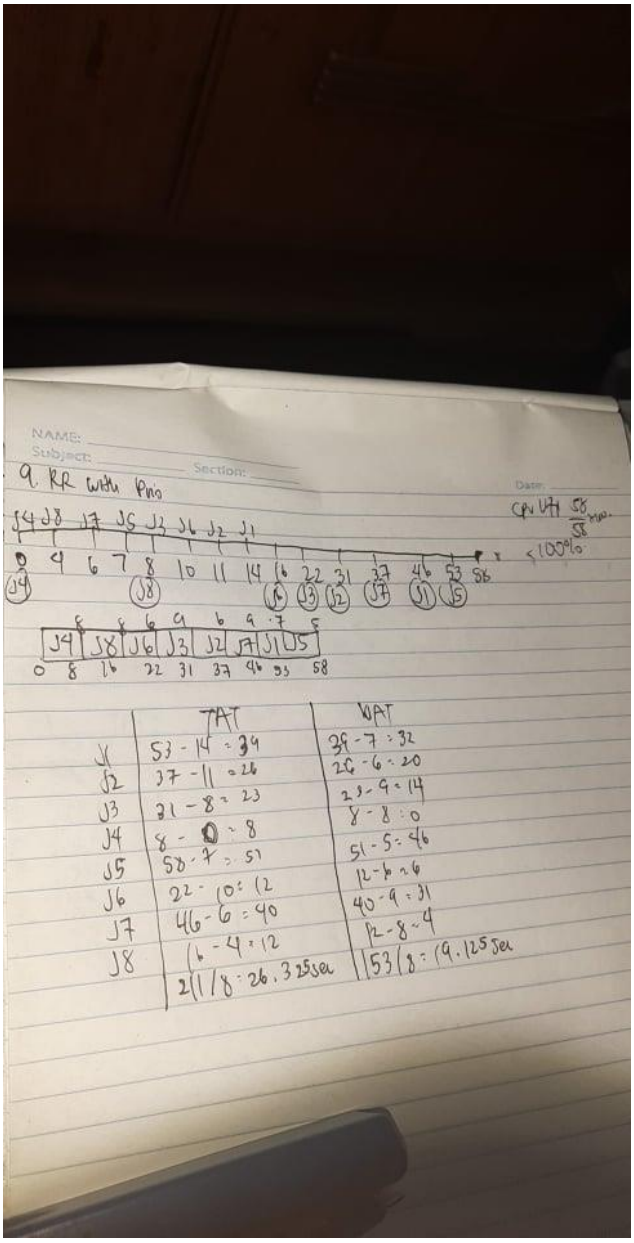
8. RR No prio Quantum slice (4)

J4	J8	J4	J7	J5	J3	J8	J6	J2	J1	J7	J5	J3	J6	J2	J1	J7	J3

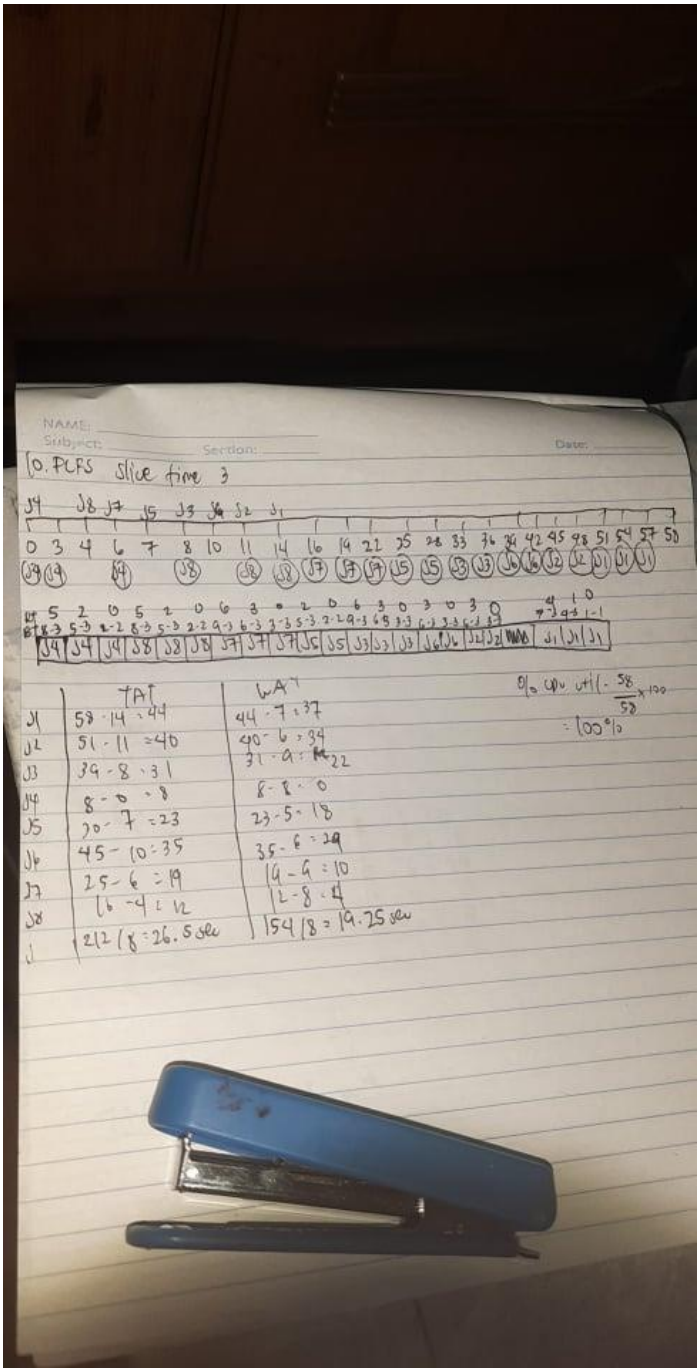
0 4 8 12 16 20 24 28 32 36 40 44 45 49 51 55 56 57 58

Job	AT	BT	FT	TAT	WT
J4	0	8	12	12	4
J8	4	8	28	24	16
J7	6	9	57	51	42
J5	7	5	45	38	33
J3	8	9	58	50	41
J6	10	6	51	41	35
J2	11	6	53	42	36
J1	14	7	56	42	35
				320/8=37.5 sec	242 | 8: 30.25 sec

CPU util %: $\frac{58}{58} \times 100$
$= 100\%$



	TAT	WAT
J4	53 - 14 = 39	39 - 7 = 32
J2	37 - 11 = 26	26 - 6 = 20
J3	31 - 8 = 23	23 - 9 = 14
J4	8 - 0 = 8	8 - 8 = 0
J5	58 - 7 = 51	51 - 5 = 46
J6	22 - 10 = 12	12 - 6 = 6
J7	46 - 6 = 40	40 - 9 = 31
J8	16 - 4 = 12	12 - 8 = 4
	211/8 = 26.375sec	153/8 = 19.125sec


NAME:
Subject:
Section:
Date:
10. FCFS slice time 3
0 3 4 6 7 8 10 11 14 16 19 22 25 28 33 36 38 42 45 48 51 54 57 58
TAT
J1 58 - 14 = 44
J2 51 - 11 = 40
J3 39 - 8 = 31
J4 8 - 0 = 8
J5 30 - 7 = 23
J6 45 - 10 = 35
J7 25 - 6 = 19
J8 16 - 4 = 12
212/8 = 26.5 sec
WAT
44 - 7 = 37
40 - 6 = 34
31 - 9 = 22
8 - 8 = 0
23 - 5 = 18
35 - 6 = 29
19 - 9 = 10
12 - 8 = 4
154/8 = 19.25 sec
% cpu util = 58/58 x 100
= 100%