Student Name: _Solution_

Roll No: _____

Program: BCS
Semester: Fall-2022
Time Allowed: 20 Minutes
Course: COAL

Total Marks: 6   Weightage: 5
Date: 5th December, 2022

Quiz 04

Suppose process A, having 7 instructions (instruction 0 to 6) as follows: s

	FI	DI	CO	FO	EI	WO
Process A	1 sec	2 sec	2 sec	1 sec	4 sec	2 sec

1. Calculate total sequential processing time.   (Marks: 2)

$1+2+2+1+4+2 = 12 sec$

∴ Sequential Processing Time = 12×7 = $\boxed{84 \ sec}$

2. Calculate total parallel processing time, when there is a jump from instruction 1 to instruction 3.   (Marks: 2)

∴ Parallel Processing Time = $\boxed{12 \ sec}$

3. Calculate total ~~parallel~~ pipeline processing time, when there is a jump from instruction 1 to instruction 3 and jump from instruction 3 to instruction 6.   (Marks: 2)

```
I0:  1   2   2   1   4   2
I1:      1   2   2   1   4   2
I2:          1   2   2   1   4̸   2̸
I3:              1   2   2   1   4   2
I4:                  1   2   2   1   4̸   2̸
I5:                      1   2   2   4̸   4̸   2̸
I6:                          1   2   2   1   4   2
```

$1+2+2+2+4+4+2+4+2+1+4+2$

∴ Pipeline Processing Time = $\boxed{30 \ sec}$