Job- 10 processoes, 10000s

1. Expansion after 50%, 20 processes

Work done = 10\*5000 = 50000

Work remaining = 10 \* 5000 = 50000

Max adaptation = 50000\*1.15 = 57500

Min adaptation = 50000\*1.05 = 52500

Lets assume system choose 54000

Now, new runtime = 540000/20 = 2700

1. Next adaptation after 25%, shrinkage to 10

25% of 2700 = 675

Work done = 675 \* 20 = 13500

Work remaining = (2700-675)\*20 = 40500

Max adaptation = 40500/1.05 = 38571

Min Adaptation = 40500 /1.15 = 35217

Lets assume 37000 is chose.

So new time = 37000/10 = 3700

Total time= 5000 + 625 +3700 = 9325

Ex 02:

20 processes 8000s

1. First expansion after 20%, 30 processes

20% of 8000 = 1600

Work done = 1600 \*20

Work remaining = 8000\*20 – 1600 \*20 = 128000

Max adaptation = 128000 \* 1.15 = 147200

Min adaptation = 128000 \* 1.05 = 134400

Lets assume 138000 is chosen

New time = 138000/30 = 4600

1. Expansion after 50%, 40 processes

50% of 4600 = 2300

Work remaining = (4600 – 2300) \* 30 = 69000

Max adaptation = 69000\*1.15 = 79350

Min adaptation = 69000\*1.05 = 72450

Lets assume 75000 is chosen

So new time = 75000/40 = 1875

Total exe time = 1600 + 2300 + 1875 = 5775

Ex o3:

8 cores, 80sec

1. Shrinkage after 20%, 6 processes

20% of 80 = 16

Work remaining = (80-16)\*8 = 512

Min adaptation = 512/1.15 = 445.21

Max adaptation = 512/1.05 = 487.61

Lets assume, 450 is chosen.

New time = 450/ 6 = 75

1. Expansion after 50%, 10 processes

50% of 75 = 37.5

Work remaining = 37.5 \* 6 = 225

Max adaptation = 225\*1.15 = 258.75

Min adaptation = 236.25

Lets assume 250 is chosen.

New time = 250/ 10 = 25

Total time = 16 + 37.5 + 25 = 78.5