

Task scheduler and types of scheduler

URM

$$U = (2.5/5) + (4.5/15) + (3.5/20) = 0.975$$

$$U_{rm} = 3(2^{1/3} - 1) = 0.779$$

$$u > u_{rm}$$

System is not scheduler

Time demand

$$T1 : w(1) = 2.5 + 0 = 2.5$$

$$w(2) = 2.5 + 0 = 2.5$$

$$w(3) = 2.5 + 0 = 2.5$$

$$w(4) = 2.5 + 0 = 2.5$$

$$w(5) = 2.5 + 0 = 2.5$$

$$w(5) < D \quad \quad \quad T1 \text{ is scheduler}$$

$$T2 : w(1) = 4.5 + (1/5) * 2.5 = 7$$

$$w(2) = 4.5 + (2/5) * 2.5 = 7$$

$$w(3) = 4.5 + (3/5) * 2.5 = 7$$

$$w(4) = 4.5 + (4/5) * 2.5 = 7$$

$$w(5) = 4.5 + (5/5) * 2.5 = 7$$

$$w(6) = 4.5 + (6/5) * 2.5 = 10$$

$$w(7) = 4.5 + (7/5) * 2.5 = 10$$

$$w(8) = 4.5 + (8/5) * 2.5 = 10$$

$$w(9)=4.5+(9/5)*2.5=10$$

$$w(10)=4.5+(10/5)*2.5=10$$

$$w(11)=4.5+(11/5)*2.5=12$$

$$w(12)=4.5+(12/5)*2.5=12$$

$$w(13)=4.5+(13/5)*2.5=12$$

$$w(14)=4.5+(14/5)*2.5=12$$

$$w(15)=4.5+(15/5)*2.5=12$$

$$w(15) < D$$

T2 is scheduler

T3: $w(1)=3.5+(1/5)*2.5+(1/15)*4.5=10.5$

$$w(2)=3.5+(2/5)*2.5+(2/15)*4.5=10.5$$

$$w(3)=3.5+(3/5)*2.5+(3/15)*4.5=10.5$$

$$w(4)=3.5+(4/5)*2.5+(4/15)*4.5=10.5$$

$$w(5)=3.5+(5/5)*2.5+(5/15)*4.5=10.5$$

$$w(6)=3.5+(6/5)*2.5+(6/15)*4.5=13$$

$$w(7)=3.5+(7/5)*2.5+(7/15)*4.5=13$$

$$w(8)=3.5+(8/5)*2.5+(8/15)*4.5=13$$

$$w(9)=3.5+(9/5)*2.5+(9/15)*4.5=13$$

$$w(10)=3.5+(10/5)*2.5+(10/15)*4.5=13$$

$$w(11)=3.5+(11/5)*2.5+(11/15)*4.5=15.5$$

$$w(12)=3.5+(12/5)*2.5+(12/15)*4.5=15.5$$

$$w(13)=3.5+(13/5)*2.5+(13/15)*4.5=15.5$$

$$w(14)=3.5+(14/5)*2.5+(14/15)*4.5=15.5$$

$$w(15)=3.5+(15/5)*2.5+(15/15)*4.5=15.5$$

$$w(16)=3.5+(16/5)*2.5+(16/15)*4.5=22.5$$

$$w(17)=3.5+(17/5)*2.5+(17/15)*4.5=22.5$$

$$w(18)=3.5+(18/5)*2.5+(18/15)*4.5=22.5$$

$$w(19)=3.5+(19/5)*2.5+(17/15)*4.5=22.5$$

$$w(20)=3.5+(20/5)*2.5+(20/15)*4.5=22.5$$

$w(20) > D$

T3 is not scheduler

system is not schedular

simso



