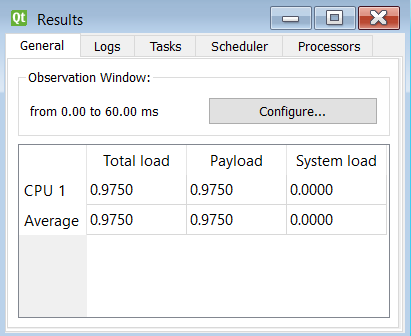
**Types of Schedulers**

**T1 {P=5, E=2.5, D=5}, T2 {P=15, E=4.5, D=15}, T3 {P=20, E= 3.5, D=20}**

**Urm: -**

**CPU Utilization = (2.5/5) + (4.5/15) + (3.5 / 20) = 0.175 = 97.5%**

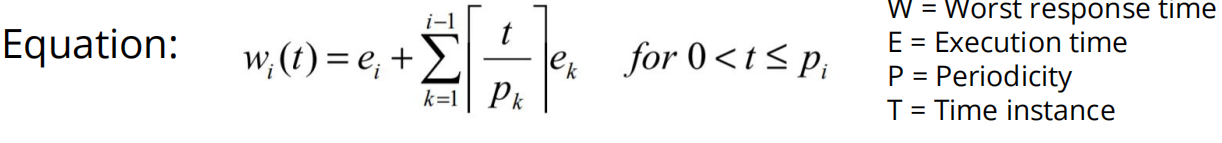
**Urm = 3 \*(2^ (1/3) -1) = 0.25 = 25%**



**CPU Utilization > Urm => the system is not Schedulable.**

**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/**

**Time Demand Analysis: -**



**Task 1:**

**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) < Deadline => So Task1 is Schedulable.**

**Task 1:**

**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 = 9.5**

**W (7) = 4.5 + (7/5) \* 2.5 = 9.5**

**W (8) = 4.5 + (8/5) \* 2.5 = 9.5**

**W (9) = 4.5 + (9/5) \* 2.5 = 9.5**

**W (10) = 4.5 + (10/5) \* 2.5 = 9.5**

**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 + (1/5) \* 2.5 = 12 < 15**

**W (15) < Deadline => So Task2 is Schedulable.**

**Task 3:**

**W (1) = 3.5 + (1/15) \* 4.5 + (1/5) \* 2.5 = 10.5**

**W (2) = 3.5 + (2/15) \* 4.5 + (2/5) \* 2.5 = 10.5**

**W (3) = 3.5 + (3/15) \* 4.5 + (3/5) \* 2.5 = 10.5**

**W (4) = 3.5 + (4/15) \* 4.5 + (4/5) \* 2.5 = 10.5**

**W (5) = 3.5 + (5/15) \* 4.5 + (5/5) \* 2.5 = 10.5**

**W (6) = 3.5 + (6/15) \* 4.5 + (6/5) \* 2.5 = 13**

**W (7) = 3.5 + (7/15) \* 4.5 + (7/5) \* 2.5 = 13**

**W (8) = 3.5 + (8/15) \* 4.5 + (8/5) \* 2.5 = 13**

**W (9) = 3.5 + (9/15) \* 4.5 + (9/5) \* 2.5 = 13**

**W (10) = 3.5 + (10/15) \* 4.5 + (10/5) \* 2.5 = 13**

**W (11) = 3.5 + (11/15) \* 4.5 + (11/5) \* 2.5 = 15.5**

**W (12) = 3.5 + (12/15) \* 4.5 + (12/5) \* 2.5 = 15.5**

**W (13) = 3.5 + (13/15) \* 4.5 + (13/5) \* 2.5 = 15.5**

**W (14) = 3.5 + (14/15) \* 4.5 + (14/5) \* 2.5 = 15.5**

**W (15) = 3.5 + (15/15) \* 4.5 + (15/5) \* 2.5 = 15.5**

**W (16) = 3.5 + (16/15) \* 4.5 + 16/5) \* 2.5 = 22.5**

**W (17) = 3.5 + (17/15) \* 4.5 + 17/5) \* 2.5 = 22.5**

**W (18) = 3.5 + (18/15) \* 4.5 + 18/5) \* 2.5 = 22.5**

**W (19) = 3.5 + (19/15) \* 4.5 + 19/5) \* 2.5 = 22.5**

**W (20) = 3.5 + (20/15) \* 4.5 + 20/5) \* 2.5 = 22.5**

**W (20) < Deadline => So Task3 is not Schedulable.**

**Task3 is not Schedulable. So, the system is not Schedulable.**

