**Unit 4**

**Work Measurement**

**Question Bank**

1) Explain time study equipment ?

2) What is performance Rating?

3)What are the factors affecting performance Rating?

4) Explain types of allowance ? ( 6 m)

5) Time study shows cumulative time in minutes as follows

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element | Time cycle | | | | Rating |
| 1 | 2 | 3 | 4 |
| 1 | 10 | 48 | 92 | 136 | 90 |
| 2 | 26 | 58 | 106 | 150 | 80 |
| 3 | 37 | 80 | 125 | 171 | 100 |

Relaxation allowance 10%; contingency allowance 3% calculate standard time & production for 8 hour shift.

6)The observed times and the performance ratings for five elements are given. compute standard time assuming rest and personal allowance as 15% and contingency allowance as 2% of basic time.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element | 1 | 2 | 3 | 4 | 5 |
| Observed time(min) | 0.2 | 0.08 | 0.5 | 0.12 | 0.10 |
| Performance rating | 85 | 80 | 90 | 85 | 80 |

**7)** From the following cumulative stop watch measurement data find out standard time and output for 8 hr. shift considering total allowance of 15%.**[6]**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Cycle time in min.** | | | |  |
| **Element** | **1** | **2** | **3** | **4** | **P.R.** |
| **1** | 0.45 | 1.82 | 3.37 | 5 | 80 |
| **2** | 0.80 | 2.18 | 3.75 | 5.80 | 100 |
| **3** | 1.32 | 2.75 | 4.30 | 6.35 | 120 |
| **4** | 1.52 | 2.97 | 4.54 | 7.00 | 130 |

**8)** A continuous stop watch study was conducted on job consisting of three elements stop watch reading (in hundredth of minute) is given below. If allowances are 15%, calculate standard time & production for 8 hour shift.**[6]**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Cycle time** | | | |  |
| **Element** | **1** | **2** | **3** | **4** | **P.R** |
| **1** | 11 | 77 | 142 | 224 | 100 |
| **2** | 26 | 93 | 174 | 239 | 90 |
| **3** | 67 | 133 | 213 | 277 | 110 |

9))what are different types of allowances ?

10) Explain how Standard time is calculated?

11)Write short note on Work Sampling.?