**Self-assessment answers: 21 Summarising data**

**1.** Mean = 56.4, Variance = 653*[3 marks]*

**2.** Mean = 3.94 m, Standard deviation = 0.977 m*[4 marks]*

**3.** Standard deviation =  = 1.21*[5 marks]*

**4.** (a)

|  |  |
| --- | --- |
| **Time in minutes (*t*)** | **Frequency** |
| 6 < *t* ≤ 10 | 6 |
| 10 < *t* ≤ 15 | 6 |
| 15 < *t* ≤ 20 | 10 |
| 20 < *t* ≤ 30 | 16 |
| 30 < *t* ≤ 45 | 7 |

(b) Mean= 21.3 min,Variance = 82.8 min2

(c) Actual data values are not given, only groups. *[10 marks]*

**5.** Total score before new student = 34.5 × 8 = 276

Total score after new student = 276 + 38 = 314

Mean score after new student =  = 34.9

Sum of squared scores before new student 8 × (5.75 + 34.52) = 9568

Sum of squared scores after new student = 9568 + 382 = 11012

Variance after new student =  − 34.92 = 6.32*[8 marks]*