**27. Capacity utilisation Mark: /16**

The table below shows the monthly operational data for company A and B.

|  |  |  |
| --- | --- | --- |
|  | Company A | Company B |
| Output | 1 000 000 | 840 000 |
| Total costs | £2 500 000 | £1 750 000 |
| Number of employees | 2 800 | 2 600 |
| Maximum capacity | 1 080 000 | 910 000 |

1. By what percentage is company A’s output greater than company B’s? /2 marks

Percentage difference = Company A – Company B/Company A x 100  
= (1 000 000 - 840 000)/ 1 000 000 x 100 = **16%**

Company A’s output is **16%** greater than Company B’s output.

1. For each of the following performance measures calculate whether company A or company B is better.
   1. Labour productivity /4 marks

Labour Productivity = Total Output/ Number of Employees

Company A = 1 000 000/ 2 800  
Company A = **357 units per employee**

Company B = 840 000/ 2 600  
Company B = **323 units per employee**

**Company A has better labour productivity than B.**

* 1. Unit costs /4 marks

Unit Cost = Total Cost/ Total Output

Company A =£2 500 000/ 1 000 000  
Company A = **£2.50 per unit**

Company B = £1 750 000/ 840 000  
Company B = **£2.08 per unit**

**Company B has lower unit cost than A.**

* 1. Capacity utilisation /4 marks

Capacity Utilisation = Actual Output/ Maximum Output x 100  
Company A = 1 000 000/ 1 080 000 x 100  
Company A = **92.59%**

Company B = 840 000/ 910 000 x 100  
Company B = **92.31%**

**Company A has higher capacity utilisation than B.**

1. If company B increased capacity utilisation to 95% what would their new average cost be? /2 marks

Increased capacity utilisation to 95% =  
Max Capacity = 910 000  
910 000 x 0.95 = = 864 500  
New Capacity = 864 500 units

New Average Cost = Total Cost / Total Outcome  
New Average Cost = £1 750 000/ 864 500 = **£2.02**