**Question 20**

Jack Ure owns a manufacturing firm that has 2 production and 2 service departments. The following information relates to its cost centres:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **Production Departments** | | **Service  Departments** | |
|  | **TOTAL** | **L** | **M** | **P** | **Q** |
| Indirect Materials | £12,500 | £7,750 | £250 | £4,250 | £250 |
| Indirect Labour | £80,000 | £32,000 | £20,000 | £21,000 | £7,000 |
| Area (sq m) | 12,000 | 4,000 | 3,000 | 2,000 | 3,000 |
| No of Employees | 500 | 100 | 150 | 200 | 50 |
| Value of Machinery | £140,000 | £30,000 | £60,000 | £20,000 | £30,000 |
| Machine Hours | 30,000 | 15,000 | 10,000 | 5,000 | — |

The following information is also available:

**Overheads** **Total costs**

Indirect Materials £12,500

Indirect Labour £80,000

Machine Insurance £14,000

Supervision £30,000

Gas and Electricity £24,000

Rent £72,000

Administration Costs £40,000

Depreciation of Machinery £70,000

1. Complete the worksheet provided to calculate the total overheads to be allocated   
   and apportioned to each department. **20**
2. Re-apportion the total overhead costs of department Q to the other three departments   
   on the basis of number of employees. **3**
3. Re-apportion the total overhead costs of department P (including the share from department Q) to the other two departments on the basis of machine hours. **3**

**(d)** Describe the following term First In First Out (FIFO) used in inventory issue **1**

**(e)** Outline **3** beneﬁts of using spreadsheets to an accountant. **3**

**Total marks (30)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Question** | **Expected answer(s)** | **Mark** | **Additional guidance** |
| **20**  **(a)**  **(b)**  **(c)** | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Overhead** | **Basis** | **Total** | **L** | **M** | **P** | **Q** |  | |  |  | **£** | **£** | **£** | **£** | **£** |  | | Indirect Material | Allocated | £12,500 | £7,750 (1) | £250 | £4,250 | £250 | **(1)** | | Indirect Labour | Allocated | £80,000 | £32,000( 1) | £20,000 | £21,000 | £7,000 | **(1)** | | Machine Insurance | Value | £14,000 | £3,000 **(1)** | £6,000 | £2,000 | £3,000 | **(2)** | | Supervision | Employees | £30,000 | £6,000 **(1)** | £9,000 | £12,000 | £3,000 | **(2)** | | Gas and Electricity | Area | £24,000 | £8,000 **(1)** | £6,000 | £4,000 | £6,000 | **(2)** | | Rent | Area | £72,000 | £24,000 **(1)** | £18,000 | £12,000 | £18,000 | **(2)** | | Administration Costs | Employees | £40,000 | £8,000 **(1)** | £12,000 | £16,000 | £4,000 | **(2)** | | Depreciation of Machinery | Value | £70,000 | £15,000 **(1)** | £30,000 | £10,000 | £15,000 | **(2)** | | **Total** |  | **£342,500** | **£103,750** | **£101,250** | **£81,250** | **£56,250** |  | | Re-apportionment |  |  |  |  |  |  |  | | Department P | Employees | £56,250 | £12,500**(1)** | £18,750**(1)** | £25,000**(1)** |  |  | |  |  |  | £116,250 | £120,000 | £106,250 |  |  | | Department Q | Machine hours | £106,250 | £63,750**(1)** | £42,500**(1)** |  |  |  | | **Total** |  |  | **£180,000** | **£162,500** | **(1) for line** | | | | **20**  **3**  **3** | If the basis of apportionment is wrong, lose the first mark for department L but treat remaining departments as consequential.  **2 marks** are all or nothing. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Question** | **Expected answer(s)** | **Mark** | **Additional guidance** |
| **20**  **(d)** | **First In First Out (FIFO)**  The price of the inventory issued is based on the assumption that issues are made on order of receipt.  Issues to production will be charged at the first price paid, until all units are used up, then the next price paid, etc. | **1** | **1 mark** for an appropriate description. |
| **20**  **(e)** | Response could include:   * Can use multiple sheets — information changes all sheets with use of formulae. * Speed — transactions can be processed much faster than in a manual system, with the use of formulae. * Accuracy — use of formulae will make calculations more accurate than manual system. * Use of templates — these can be created with formulae to use from year to year, eg cash budget. * If one figure is changed, the change will ripple through with use of formulae. * Multiple access. | **3** | Accept any three benefits for **1 mark** each.  Accept any other relevant answer. |

**Worksheet for question**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Overhead** | **Basis of apportionment** | **Total** | **L** | **M** | **P** | **Q** |
|  |  | **£** | **£** | **£** | **£** | **£** |
| Indirect Material | Allocated |  |  |  |  |  |
| Indirect Labour | Allocated |  |  |  |  |  |
| Machine Insurance |  |  |  |  |  |  |
| Supervision |  |  |  |  |  |  |
| Gas and Electricity |  |  |  |  |  |  |
| Rent |  |  |  |  |  |  |
| Administration |  |  |  |  |  |  |
| Depreciation of Machinery |  |  |  |  |  |  |
| Total Department Overheads |  |  |  |  |  |  |
| **Re-apportionment of Overheads** |  |  |  |  |  |  |
| Department Q |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Department P |  |  |  |  |  |  |
| **Total Production Department Overheads** |  |  |  |  |  |  |