**Question 23**

E Smith runs her own driving school — Easidrive. She has a fleet of five cars, each of   
which costs £9,000, with an estimated residual value after four years of £1,000.

The following are her estimated annual running costs per car:

|  |  |  |
| --- | --- | --- |
| 1 | Wages: | * Each instructor is paid £10 per hour for an 8-hour shift Monday to Saturday, with time and a half on Saturday. * Each instructor works 48 weeks and receives holiday pay  of £250 per week. |
| 2 | Petrol: | * 1 litre of petrol per 8 miles at a discount price of £1 per  litre — average daily mileage is 80 miles. |
| 3 | Servicing: | * The cars are serviced every 12,000 miles at a cost of £200  for each service. |
| 4 | Tyres: | * Tyres are replaced every 16,000 miles at a cost of £60  per tyre. |
| 5 | Sundry: | * MOT £40 * Road tax £120 * Garage rent £1,000 * Insurance £2,000 |

In addition to the above, administration costs are estimated at £1,768 per quarter and advertising at £300 per month.

**Calculate:**

**(a)** Annual cost of operating the fleet of cars

**(b)** Hourly cost of using each car for lessons

**(c)** Price a learner driver should be charged for an hourly lesson, to include 20%   
profit on that price.

**Total marks (20)**

**Question 23 — solution**

(a)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Depreciation Cost £9,000 − £1000 = £8,000/4 **(1)** = £2,000 × 5 cars **(1)** = £10,000 per annum | | | | | | | |
| Wages £10 × 8 hours × 5 days **(1)**  £15 × 8 × 1 day **(1)** | | | | | £400  £120 | |  |
|  | | | | | £520 | | per week |
|  | |  | | | × 48 | | **(1)** |
|  | |  | | | £24,960 | | per annum |
| Holiday Pay £250 × 4 weeks **(1)** | | | | | 1000 | | Instructors **(1)** |
| £25,960  × 5 | |
| **Total Annual Wages** | | | | | **£129,800** | |  |
|  | |  | | |  | |  |
| Petrol 80 miles x 6 days × 48 weeks **(1)** | | | | | **(1)** | | |
|  | |  | | | **(1)**  **both** | | |
|  | |  | | |  | |  |
| **Total Annual Petrol** | | | | | £14,400 | |  |
|  | |  | | |  | |  |
|  | | | | | | | |
| Service 23,040/12,000 = 1·92 services × £200 = £384 × 5 cars = £1,920 **(2**) | | | | | | | |
| Tyres 23,040/16,000 = 1·44 changes × £240 = £345·60 × 5 cars = £1,728 (**2)** | | | | | | | |
| Sundry  MOT  Road Tax  Rent  Insurance | £40 × 5  £120 × 5  £1,000 × 5  £2,000 × 5 | |  | £200  £600  5,000  £10,000  £15,800 | | **(1)** |
| Admin Costs | £1,768 × 4 | | **(1)** | £7,072 | |  |
| Advertising | £300 × 12 | | **(1)** | £3,600 | |  |

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**Annual Operating Costs (marks breakdown)**

|  |  |  |
| --- | --- | --- |
| Depreciation | £10,000 | **2** |
| Wages | £129,800 | **4** |
| Petrol | £14,400 | **4** |
| Service | £1,920 | **2** |
| Tyres | £1,728 | **2** |
| Sundry | £15,800 | **1** |
| Admin Costs | £7,072 | **1** |
| Advertising | £3,600 | **1** |
| **TOTAL COST** | **£184,320** |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **(b)** Total hours | 8 × 6 × 48 × 5 | 11,520 | per annum **(1)** | **2** |
| Cost per hour | £184,320/11,520 **(1)** | £16 |  |  |
|  |  |  |  |  |
| **(c)** 20% Profit |  | £4 | **(1)** |  |
| Price for one lesson |  | £20 |  |  |
|  |  |  |  | **1** |

**Total marks (20)**