**AC 202 Management Accounting**

**Exercise 4: Cost allocation & Activity-Based Costing**

**Q. 1** Gregory Enterprises uses normal costing system. Gregory has identified 4 cost pools to allocate overhead costs. The following estimates are provided for 20x1:

| Activities | Overhead Costs | Cost driver | Activity level |
|---|---|---|---|
| Machine setup | $100,000 | No. of Setup | 1,000 Setups |
| Purchasing | $170,000 | No. of purchase orders | 3,400 Orders |
| Inspection | $150,000 | No. of units tested | 10,000 Units |
| Supervision of direct labor | $200,000 | Direct labor-hours | 62,500 Hours |

In November, 20x1, the accounting records show Job#101 consumed the following resources:

- Direct materials cost: $8,000
- Direct labor hours: 100 DLH @ $65 per hour
- Machine setup: 4 Setup
- Purchasing: 2 orders
- Inspection: 100 units

**Required:**

a) Determine total costs of Job # 101 using plantwide overhead rate. Assume that Gregory allocates MOH based on direct labor hours.
b) Determine total costs of Job # 101 using ABC.

**Q. 2** ABC Company has identified the following cost pools and cost drivers.

| COST POOLS | ACTIVITY COSTS | COST DRIVERS |
|---|---|---|
| Machine setup | $360,000 | 6,000 setup hours |
| Materials handling | $100,000 | 50,000 pounds of material |
| Electric power | $40,000 | 80,000 kilowatt hours |

The following information pertains to the production of X and Y.

| ITEM | X | Y |
|---|---|---|
| Number of units produced | 5,000 | 15,000 |
| Direct materials cost | $25,000 | $33,000 |
| Direct labor cost | $14,000 | $16,000 |
| Number of setup hours | 120 | 150 |
| Pounds of material used | 5,000 | 10,000 |
| Kilowatt hours | 2,000 | 3,000 |

**Required:** Determine the unit cost for each of the two products using activity-based costing.