**ACT 470 - Individual Assignment – 15%**

**Question ONE**

Apex provides management consulting services to government and corporate clients. Apex has two support departments—administrative services (AS) and information systems (IS)—and two operating departments—government consulting (GOVT) and corporate consulting (CORP). For the second quarter of 2014, Apex’s cost records indicate the following:

Required:

**1.** Allocate the two support departments’ costs to the two operating departments using the following methods:

1. **Direct method**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Particulars** | **Government consulting** | **Corporate Consulting** | **Support AS** | **Support IS** |
| Interdepartmental cost allocation | 2,00,000 | 2,00,000 | 500,000 | 500,000 |
|  |  |  |  |  |
| Support work supplied by AS | 250,000 | 250,000 | -500,000 |  |
|  |  |  |  |  |
| Support work supplied by IS | 250,000 | 250,000 |  | -500,000 |
|  |  |  |  |  |
| **Total** | **700,000** | **700,000** | **0** | **0** |
|  |  |  |  |  |

1. **Step-down method (allocate AS first)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Particulars** | **Government consulting** | **Corporate Consulting** | **Support AS** | **Support IS** |
| Interdepartmental cost allocation | 2,00,000 | 2,00,000 | 500,000 | 500,000 |
|  |  |  |  |  |
| Support work supplied by AS | 250,000 | 125,000 | -500,000 | 125,000 |
|  |  |  |  |  |
| Support work supplied by IS | 234,375 | 390,625 | 0 | -625,000 |
|  |  |  |  |  |
| **Total** | **684,375** | **715,625** | **0** | **0** |

1. **Step-down method (allocate IS first)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Particulars** | **Government consulting** | **Corporate Consulting** | **Support AS** | **Support IS** |
| Interdepartmental cost allocation | 200,000 | 200,000 | 500,000 | 500,000 |
|  |  |  |  |  |
| Support work supplied by AS | 150,000 | 250,000 | 100,000 | -500,000 |
|  |  |  |  |  |
| Support work supplied by IS | 400,000 | 200,000 | -600,000 | 0 |
|  |  |  |  |  |
| **Total** | **750,000** | **650,000** | **0** | **0** |
|  |  |  |  |  |

2. Allocate the two support departments’ costs to the two operating departments using the reciprocal method. Use (a) linear equations

Let S1 be the service cost of AS and S2 the service cost of IS

S1 = 500,000 + 0.2 S2

S2 = 500,000 + 0.25 S1

When we substitute S1 in S2, we get:

S2 = 500,000 + 0.25 (500,000 + 0.2 S2)

S2 = 500,000 + 125,000 + 0.05 S2

S2 – 0.05 S2 = 500,000 + 125,000

0.95 S2 = 625,000

S2 = 657,895

S1 = 500,000 + 0.2 S2

= 500,000 + 0.2 (657,895)

= 631,579

**Therefore, service cost of AS = 657,895 and service cost of IS is 631,579**