

QUESTIONS: ALLOCATION OF SUPPORT DEPARTMENTS' COSTS

Question 1. Pink Clinic has three support and two operating departments. The following data from operations were collected for analysis.

Budgeted manufacturing overhead costs

Human Resource	HR (Support Dept.)	\$ 90,000
Information Systems	IS (Support Dept.)	\$ 72,000
Maintenance	M (Support Dept.)	\$ 84,000
Pediatric	P (Operating Dept.)	\$ 520,000
Cardiology	C (Operating Dept.)	\$ 375,000

Service furnished:	HR	IS	M	P	C
By Human Resource (number of employees)	15	20	30	120	130
By Information Systems (number of computers)	12	27	10	60	50
By Maintenance (budgeted maintenance hours)	80	120	50	250	500

What are the costs of the Human Resource, Information Systems and Maintenance allocated to Pediatric and Cardiology using the step down method? The order of allocation will be: first HR second IS, and finally M.

Question 2. Tamara's Battery Company has two service department's Personnel and Maintenance. The Maintenance Department's costs of \$160,000 are allocated on the basis of standard hours used. The Personnel Department's costs of \$40,000 are allocated based on the number of employees. Costs of Department A and B are \$80,000 and \$120,000, respectively.

Data on standard service hours and number of employees are as follows:

<u>Standard service</u>	Maintenance		Personnel		<u>Production Departments</u>	
	<u>Department</u>	<u>Department</u>	<u>A</u>	<u>B</u>		
Hours used	400	400	480	320		
Number of Employees	20	20	80	240		

Allocate service department costs to production departments using direct method

Question 3. Campaign Printing has two service departments, S1 and S2, and two production departments, P1 and P2. The data for June 2002 were as follows:

Activity	Costs	Services provided to:			
		S1	S2	P1	P2
S1	\$90,000		10%	40%	50%
S2	60,000	20%		55%	25%
	Fixed Costs				
P1	\$360,000				
P2	\$520,000				

What are the allocation of costs of service departments, S1 and S2, to production departments, P1 and P2 using the reciprocal method?

Question 4. Juliana Company has two support departments: Information Systems and Human Resources. The Information Systems Department's costs of \$200,000 are allocated on the basis of standard hours. The Human Resources Department's costs of \$400,000 are allocated based on the number of employees. Costs of Operating Department Assembly and Testing are \$700,000 and \$150,000 respectively.

Data on standard service hours and number of employees are as follows:

	Support Departments		Operating Departments	
	Information Systems	Human Resource	Assembly	Testing
Standard Hours		400	250	350
Percentage		40 %	25 %	35 %
Number of Employees	30		120	50
Percentage	15 %		60 %	25 %

What are the allocation of costs of Support Departments Information Systems and Human Resources to Operating Departments Assembly and Testing using the reciprocal method?

Question 5. Alfred, owner of Hi-Tech Fiberglass Fabricators Inc. is interested in using the reciprocal allocation method. The following data from operations were collected for analysis.

Budgeted manufacturing overhead costs

Plant Maintenance	PM (Support Dept.)	\$350,000
Data Processing	DP (Support Dept.)	\$ 75,000
Machining	M (Operating Dept.)	\$225,000
Capping	C (Operating Dept.)	\$125,000

Service furnished:

By Plant Maintenance (budgeted labor-hours)

Data Processing	2,125
Machining	3,400
Capping	11,475

By Data Processing (budgeted computer time)

Plant Maintenance	600
Machining	3,500
Capping	900

What are the costs of the Data Processing and the Plant Maintenance allocated to Machining and Capping using the reciprocal method?

Question 6. Reddicks Clinic uses the step-down method to allocate service department costs to operating departments. The clinic has three service departments, Personnel (P), Information Technology (IT), and Maintenance (M) and two operating departments, Family Medicine and Pediatric. Data concerning those departments follow:

	SUPPORT DEPARTMENTS			OPERATING DEPARTMENTS	
	Personnel	IT	Maintenance	Family Medicine	Pediatric
Departmental Costs	\$ 84,000	\$ 42,000	\$ 25,000	\$ 650,000	\$ 350,000
Employees	18	25	50	110	165
PCs	19	29	50	120	130
Maintenance Hours	20	40	50	120	80

Personnel costs are allocated first on the basis of employees, IT costs are allocated second on the basis of PCs, and Maintenance costs are allocated third on the basis of maintenance hours.

Allocate costs of support departments to operating departments using step down method.