The net operating income that an investment center earns above the minimum required return on its average operating assets is its **residual** income.

True or false: In strongly decentralized organizations, even the lowest-level managers can make decisions. **True.**

Which of the following statements describes a potential problem with decentralization? (Check all that apply.)

>>In a decentralized organization, lower-level managers may make decisions for their department at the expense of the overall organization goals.

>>Coordination among departments may be more difficult in a decentralized than a centralized organization.

Match the scope of management’s authority on the right with the type of center on the left.

**Cost center**: Manager has control over costs, but not over revenue or the use of investment funds.

**Profit center**: Manager has control over both costs and revenue, but not over the use of investment funds.

**Investment center**: Manager has the control over costs, revenues, and the investment in operating assets.

Net operating income/Average operating assets = **Return on investment**.

Which of the following statements regarding decentralized organizations are correct? (Check all that apply.)

>>All large organizations are decentralized to some extent.

>>Decentralization often allows decisions to be made more rapidly, since not as many layers of management are needed for approval.

>>Decentralized organizations often use responsibility accounting systems to evaluate lower level-managers.

>>Managers in decentralized operations may make decisions that are good for their department, but not for the organization as a whole.

Carlos, Inc. requires a minimum rate of return of 10% on its average operating assets. The housewares department currently has average operating assets of $200,000 and a net operating income of $24,000. The department’s residual income is **$4000**.

Which of the following statements is incorrect regarding the use of financial indicators as performance measures?

>>Financial performance is the responsibility of lower-level supervisors and managers who are in charge of the company’s daily operations.
Marcos Co. is considering a project that will increase residual income by $15,000. The project has a 12% return on investment (ROI) which exceeds the company’s 10% required rate of return. Marcos Co. currently has an overall 15% ROI in the department where this project would be implemented. Should Marcos do the project? (Check all that apply.)

>>The project should be accepted by the company because it increases overall residual income.

>>The department manager may not want to accept the project because it will lower the overall ROI for the department.

The period from which a product begins production as raw materials and ends as a finished product is known as **throughput** time or manufacturing cycle time. (Enter only one word per blank.)

Which of the following statements is **incorrect** regarding responsibility accounting?

>>Responsibility accounting refers to the process of evaluating top management on the decisions made by lower-level managers.

Last year, Valley Manufacturing reported sales of $800,000, net operating income of $40,000, and average operating assets of $400,000. The company is considering the purchase of equipment that will reduce expenses by $20,000. The equipment will cost $100,000 and be purchased by issuing a notes payable. Sales will remain unchanged. If Valley accepts the project, its return on investment (ROI) after the purchase is projected to **increase** from the current level of 10% to a new return on investment (ROI) of 12%.

How can a company increase its return on investment (ROI)? (Check all that apply.)

>>Reduce operating expenses

>>Increase sales

What is an advantage of assigning variable service department costs differently from fixed service department costs?

>>The causes of variable and fixed costs are different and costs should be assigned on a cause-and-effect basis.

Managers will be more likely to pursue projects that will benefit the entire company when being evaluated on residual income, rather than on return on investment (ROI).

Which of the following is not a valid criticism of evaluating performance based on return on investment (ROI)?

>>Managers can affect ROI by increasing sales or decreasing operating expenses.

Which of the following are advantages of negotiated transfer pricing?

>>Negotiated transfer prices are consistent with decentralization.

>>Negotiated transfer prices use the expertise of managers in weighing the costs and benefits of the transfer.
Negotiated transfer prices preserve the autonomy of the divisions. A(n) **negotiated** transfer price results from discussions between the buying and selling divisions.

Which of the following is not a benefit of using a balanced scorecard?

The balanced scorecard removes pressure on lower level managers to help further the company’s overall strategy.

A manufacturing cycle efficiency of 40% means that:

**value-added activities are being performed 40% of the time.**

**the typical order is being worked on 40% of the time.**

Transfer pricing is important when a division in a company is supplying goods or services to other divisions within the same company.

How does a manager who is evaluated based on residual income decide whether or not to invest in a new project?

**To be accepted, net operating income for the investment should be above the minimum required return on average operating assets.**

The variable costs of service departments should be charged to consuming departments according to whatever activity causes the incurrence of the cost.

Which of the following lists contain the methods commonly used for transfer pricing?

Negotiation, full cost, market price

Which of the following ratios are part of the ROI formula?

**Sales/Average operating assets**

**Net operating income/Sales**

Which of the following statements regarding a balanced scorecard is incorrect?

**The scorecard should provide an opportunity for subordinates to evaluate their superiors.**

Division B wants to purchase a part from Division A. Division A’s variable cost per unit is $18. Allocated fixed costs are $5 per unit. Division A’s normal selling price for the part is $30 per unit. Division A has enough idle capacity to be able to supply the needed parts without interrupting its regular sales. The lowest transfer price per unit that Division A might accept is **$18**. (When a division has enough idle capacity, the minimum acceptable selling price is the variable cost per unit.)

Garnett, Inc. has a required rate of return on new projects of 12%. The Western division of Garnett is currently earning a combined return on investment (ROI) of 14.5% on the projects in its division. The manager of the Western division is considering a project that is projected to earn 13.25%. Which of the following statements regarding the manager’s decision are correct (Select all that apply)?
The manager may decide to reject the project because it will lower the current ROI earned by his division.

The project is acceptable because it exceeds the company’s required rate of return.

Rejecting the project would be an example of the manager sacrificing the objectives of the overall company in order to improve his segment.

The selling division will agree to a transfer price only if its profits increase as a result of the transfer, and the buying division will agree to the transfer only if its profits increase as a result of the transfer.

Drawbacks of using variable or full costing to set transfer prices include:

- A lack of departmental profit for the supplying department.
- Suboptimization that may occur as fixed costs per unit may push the transfer price above market price.
- A lack of incentive to control costs because they are simply passed to another department.

When a buying division has no outside supplier available to them, the highest transfer price they should be willing to pay is the:

Amount they will make on the sale of the transferred units.

Which of the following are operating assets?

- Accounts receivable
- Equipment
- Inventory

Division B wants to buy 500 units of a part from Division A. Division A’s variable cost per unit for the part is $18. Division A has enough idle capacity to make 300 parts without interrupting regular sales. If Division A supplies the parts, it will lose sales of 200 units. The selling price per unit on the outside market is $38. The lowest transfer price per unit that Division A might accept is $26. (Lost contribution margin on the 200 units of forfeited sales = $4,000 or [($38 - $18) x 200]. $18 + $4,000/500 = $26 per unit.

The buying division in a transfer will only agree to transfer price if the inside supplier’s price is less than or equal to the price offered by an outside supplier.

Which of the following statements is correct when evaluating divisions of different sizes?

Management should focus on the percentage change in residual income from year to year rather than on absolute amounts.

When a department has enough idle capacity to supply a part to another division within the company without interrupting current sales, what is the lowest price the selling division might accept?

Variable cost per unit
Under the balanced scorecard approach, managers should be evaluated based on trends in the performance measures over time.

What are some of the pitfalls of allocating fixed costs on a variable allocation base, such as departmental sales?

>>Departments with higher or improving sales will be allocated a larger percentage of the costs, thus shifting costs to their departments.

>>Costs allocated to one department are heavily influenced by what happens in other departments.

Profit center managers are often evaluated by comparing actual profit to budgeted profit.

On which of the following will a company focus when determining their international transfer pricing strategy?

>>Enhancing competitive position

>>Import and export taxes

>>Foreign exchange risks

When will using the market price to set transfer prices not be the best approach?

>>When the selling division has idle capacity

When a transfer has no effect on fixed costs, in order for the transfer to be acceptable to the selling division, the transfer price:

>>must cover any lost contribution margin due to the transfer

>>must cover the variable costs per unit

>>must cover any opportunity cost from lost sales

Which of the following evaluation measures are used for investment center managers only – not for cost or profit center managers?

>>Residual income

>>Return on investment (ROI)

Managers of cost centers are evaluated on:

>>their ability to control costs in their responsibility center

In order to fully evaluate ROI managers should compute both margin and turnover.

If a transfer within a company would result in higher overall profits for the company, there is always a range of transfer prices where both divisions would have higher profits if they are able to negotiate a price.

The balanced scorecard should be consistent with the company’s strategy, so that people will not find themselves working at cross-purposes.
When a department has no idle time and will interrupt their current level of sales to regular customers, what is the lowest acceptable transfer price to supply product to another division?

>>Selling price

The time between when an order is placed and when it is delivered is known as the delivery cycle time.

Return on investment (ROI) is a measure used to evaluate managers of investment centers.

An integrated set of performance measures that are derived from the company’s strategy is: a balanced scorecard.

Because companies target different customers with different kinds of products and services, performance measures should be tailored to the specific strategy of a company.

Operating performance measures: help identify what drives organizational performance

Net operating income is income before interest and taxes.

Which of the following statements is incorrect when allocating service department costs to operating departments?

>>Fixed costs are typically not allocated to operating departments, but must be absorbed by the service departments.

The higher a business segment’s return on investment (ROI), the greater the profit earned per dollar invested in the segment’s average operating assets.

The fixed costs of service departments represent the cost of making capacity available for use. These costs should be charged in predetermined lump-sum amounts.

The fundamental objective in setting transfer prices is to motivate managers to act in the best interest of: the overall company

True or false: Using the net book value to calculate average operating assets encourages new investment. False.

Which of the following is incorrect?

Allowing division managers the autonomy to set transfer prices promotes more centralized control of the organization.

Should the budgeted costs or the actual costs of a service department be charged to operating departments?

>>Budgeted

In order for the buying division to agree to a transfer price when an outside supplier does not exist, the transfer price must be: less than or equal to the profit per unit not including the transfer price.

A company with no idle capacity has variable costs of $8 per unit and a contribution margin of $12 per unit. Fixed costs total $10,000 for 5,000 units produced. The lowest per unit price they will accept to supply another division with 500 units is $20.