

Question 1:

- A) What tool would you use to analyze the following chart?
- B) How would you organize the data?

Reason for Missing Class	Frequency
Doing Homework	4
Slept In	9
Busy on Social Media	20
Out with Friends	12
Sports	6

Answer:

- A) Pareto Chart
- B) Highest to lowest

Question 2:

What 3 business functions are necessary to all organizations?

Answer:

- A) Finance
- B) Marketing
- C) Operations

Question 3:

Which International operations strategy has both high cost reduction and high local responsiveness?

Answer: Transnational

Question 4:

The 3 strategic approaches to competitive advantage are:

Answer: Differentiation, Cost, Responsiveness

Question 5:

A purchasing agent places 40 orders in an 8 hour shift:

A) What is the agent's productivity?

The company installs a new ERP system with a more efficient purchasing program. The agent now places 60 orders in an 8 hour shift.

B) What is the agent's new productivity?

C) What is the % increase in productivity?

Answer:

A) $P = O / I = 40 / 8 \text{ hrs.} = 5 \text{ orders/hr.}$

B) $60 / 8 = 7.5 \text{ orders/hr.}$

C) $N - O / O = 7.5 - 5 / 5 = +50\%$

Question 6:

John's Bakery produces 1,200 loaves of bread per month with labour productivity of 2.5 loaves per hour. How many workers will John's Bakery require if each employee works 160 hours per month?

Answer:

$$P = O/I$$

$$P = 2.5/\text{hrs}; O = 1,000; I = 160 E$$

Solve for E = # of employees

$$2.5 = 1,000/160E \rightarrow 160E = 1,000/2.5 = 480$$

$$E = 480/160 = 4$$

Question 7:

The following are concepts for an effective _____ program:

- Continuous improvement
- Six Sigma
- Employee Empowerment
- Benchmarking
- Just-in-Time (JIT)

Answer: Total Quality Management

Question 8:

Quality is defined as:

Answer: The totality of features and characteristics of a product or services to bears on its ability to satisfy stated or implied customer needs.

Question 9:

PDCA stands for:

Answer: Plan, Do, Check, Act. This is a tool for Continuous Improvement.

Question 10:

A student chooses to wait until after the first class of every course to pick up his/her text books from the bookstore.

From his/her locker it takes this student 2 minutes to walk to the bookstore, 15 minutes waiting in line, 12 minutes to select the texts, 6 minutes in line to pay, 2 minutes to pay and 2 minutes to walk back to his/her locker.

What is the

- A) Cycle Time
- B) % VAT for this process?

Answer:

- A) Cycle time = $2 + 15 + 12 + 6 + 2 + 2 = 39$ minutes
- B) % VAT = $(12 + 2) / 39 = 36\%$, OR
 $(2 + 12 + 2 + 2) / 39 = 46\%$

Question 11:

Selecting “best practices” to use as a standard for performance for a process or activity is known as:

Answer: Benchmarking

Question 12

What are the 5 stages in the new product development process? Use the correct order.

Answer:

1. Concept
2. Planning
3. Development
4. Preparation
5. Launch

Question 13

At what stage in the product development process does Operations build pilot units and train personnel?

Answer: Preparation

Question 14

What are 6 of the 7 most frequently used TQM tools?

Answer:

- 1) Check Sheets
- 2) Scatter Diagrams
- 3) Cause & Effect Diagrams
- 4) Pareto Charts
- 5) Flowcharts (process maps)
- 6) Histograms
- 7) SPC Charts

Question 15

_____ is the tool used to find the root cause of a problem?

Answer: Cause and Effect Diagram or Fishbone Chart

Question 16

The 4 “M’s” in a Fishbone Chart are:

Answer:

- 1) Material
- 2) Measurement
- 3) Method
- 4) Machine
- 5) Manpower

Note: the textbook lists 4 but we will accept any of the above.

Question 17

- A) An organization stated purpose for being is called a _____?
- B) The action plan on how an organization will achieve the above is called _____?

Answer:

- A) Mission statement
- B) Strategy