

## Introduction to BPM



### Report Summary

Name	: Guest
Your Score	: 30 out of 30 (100%)
Correct Answers	: 6 Questions
Incorrect Answers	: 0 Questions
Unanswered	: 0 Questions
Required Passing Grade (%)	: 50%
Time Taken	: 2 mins 18 secs
Date	: Jan 16, 2024
Your Result	: Pass

## Your Answers

Correct

Points earned: 5 out of 5

Q1) Which of the following is NOT a task?

- A. Check insurance policy details
- B. Insurance policy does not cover the damage (Your Answer)(Correct)
- C. Calculate settlement amount
- D. Determine if customer is liable for damage

Explanation:"Insurance policy does not cover the damage" is not a task. It is a condition that may hold true or false and is likely to be part of a decision point in an insurance claims handling process.

Correct

Points earned: 5 out of 5

Q2) Which of the following is NOT an event?

- A. Purchase order received
- B. Claim withdrawn by customer Claim withdrawn by customer
- C. Notify settlement decision to customer (Your Answer)(Correct)
- D. Payment delay expired

Explanation:"Notify settlement decision to customer" is a task. One can see this because the label starts with a verb in active form ("to notify"). Someone has to contact the customer to notify the customer.

Correct

Points earned: 5 out of 5

Q3) Which of the following statements refer to a critical (core) process of a company?

- A. Human resource management
- B. Accounts payable
- C. Order-to-cash (Your Answer)(Correct)
- D. Customer relationship management

Explanation:Order-to-cash is a process that is found in virtually every private organization. Human resource management and Customer relationship management are "function" that an organization needs to have. In any reasonably large company, there will be managers and workers specialized in these functions. These managers are workers will be involved in several processes, like for example recruit processes, complaint-to-resolution processes, etc. Accounts payable is also a function (typically performed by a dedicated team or a department) which consists mainly in producing invoices and collecting payments. The accounts payable

department is typically for the final part of the order-to-cash process.

Correct

Points earned: 5 out of 5

Q4) A water utility company provides drinking water to residents and businesses in a city of one million inhabitants, as well wastewater treatment services to the city council. Which processes are likely to be core processes of this company.

- A. Bill-to-cash (Your Answer)(Correct)
- B. Procure-to-pay
- C. Issue-to-resolution (Your Answer)(Correct)
- D. Infrastructure inspection (Your Answer)(Correct)
- E. Debt collection

Explanation: The bill-to-cash process is likely to be a core process in a water utility company because it is the process that ultimately assures the cash flow of the company. Issue-to-resolution is also critical (core) since issues with water supply are very critical for the company's customers - not handling them in a timely and effective manner is likely to generate bad reputation for the company and possibly also formal complaints and court cases that may be costly to the company. Infrastructure inspection is critical to a water company since infrastructure is the core asset of the organization, and poorly maintained infrastructure results in customer issues and complaints. Procure-to-pay is clearly not core. Debt collection is to some extent important, especially if a large number of customers are defaulting with their payment. But debt collection can in some cases be outsourced to a debt collection agency, or isolated from the rest of the company in such a way that it does not interfere with the core processes.

Correct

Points earned: 5 out of 5

Q5) The measurement-to-cash process of an electricity company is the process that starts when the electricity meter of a customer is read at the end of a month and ends (successfully) when the customer pays the electricity bill for that month. In this process, which of the following performance measures are directly related to costs?

- A. Average electricity consumption per customer
- B. Cycle time (Your Answer)(Correct)
- C. Percentage of under-billing errors (Your Answer)(Correct)
- D. Percentage of over-billing errors (Your Answer)(Correct)
- E. Price per kilowatt-hour (KWh)

Explanation: Cycle time leads to costs since if cash is not collected promptly the company loses in interest rates payment. Billing errors cause costs, obviously in the case of under-billing errors, but also in the case of over-billing errors since these latter would typically entail customer complaints which then entail costs to be resolved.

Q6) In a process-oriented organization, who is directly accountable for poor performance of a process?

- A. The process participants
- B. The executive management team
- C. The process owner (Your Answer)(Correct)
- D. The process analyst
- E. The BPM group

Explanation: First of all, that all of the above actors are concerned by poor performance of a process (in the case of process participants at least for those processes they participate in). However, the process participants are not directly accountable for poor process performance. They share responsibility for the process, but are not ultimately answerable for poor performance of the whole process. The executive management team is responsible for overseeing the entire organization, including all its processes, but not directly accountable for poor performance of a process. This accountability is delegated to a manager as close as possible to the process, which is the process owner. Process analysts and the BPM group support the process owner(s) in their work, but are not directly accountable for poor process performance.

# Process Identification

## Report Summary

Name : **Guest**  
Your Score : 28 out of 30 (93%)  
Correct Answers : **5 Questions**  
Incorrect Answers : **0 Questions**  
Unanswered : 0 Questions  
Required Passing Grade (%) : 50%  
Time Taken : 3 mins 5 secs  
Date : Jan 16, 2024

## Your Answers

**Correct**

Points earned: 5 out of 5

- Q1) According to Porter's classification of processes, which of the following is/are support processes.
- A. The process for handling requests from employees to take their annual vacation (Your Answer)(**Correct**)
  - B. The process for reimbursing travel expenditures to employees when returning from a business travel (Your Answer)(**Correct**)
  - C. The process for handling customer complaints (complaint-to-resolution)
  - D. The process for producing the annual report of the company
  - E. The process for recovering overdue payments from customers
- Explanation: The processes for handling customer complaints and overdue payments are core processes. They are part of the way the company produces value (handling overdue payments is part of the company's order-to-cash process). The process for producing the annual company report is a management process.

**Correct**

Points earned: 5 out of 5

- Q2) Suppose that process A is a downstream process of process B. This is an

example of what kind of relation?

- A. An abstraction relation
- B. A sequential relation (Your Answer)(Correct)
- C. A hierarchical relation
- D. An external relation

Explanation:Processes may also be related to one another in other ways. Billing, in the example we just used, is an upstream process compared to shipment: for the same order the bill is sent out usually before the ordered goods are shipped. Another way of expressing this relation is, of course, that shipment can be considered a downstream process in comparison to Billing. This illustrates how processes can be sequentially related.

Correct

Points earned: 5 out of 5

Q3) Which of the following are examples of reference models that can be used for process identification.

- A. ITIL (Your Answer)(Correct)
- B. CMMI
- C. SCOR (Your Answer)(Correct)
- D. PCF (Your Answer)(Correct)
- E. APQC

Explanation:ITIL is a reference model for IT service processes. SCOR is a model for supply chain management processes, while PCF is a classification of activities found in processes across various industries. CMMI is a maturity model, not a reference process model. APQC is the association that published the PCF classification.

Correct

Points earned: 5 out of 5

Q4) Various criteria can be used to select those processes that need to be consolidated, decommissioned or eliminated. Which are the most common ones?

- A. Strategic importance (Your Answer)(Correct)
- B. Case type dimension
- C. Feasibility to change (Your Answer)(Correct)
- D. Dysfunctional performance (Your Answer)(Correct)
- E. Completeness

Explanation:In a process improvement initiative, emphasis is generally placed on processes that are important to the company, dysfunctional and such that changing it is feasible given the current situation of the company and its constraints.

Partially Correct

Points earned: 3 out of 5

Q5) Which of the following statement(s) is true about a case/function matrix?

- A. It can be split up into multiple matrices for the purpose of improving readability (Your Answer)(Correct)
- B. It has the different case types as columns and the different functions as rows (Your Answer)(Correct)
- C. Each of its cells represents a process architecture (Your Answer)(Incorrect)
- D. It can evolve into a process landscape model (Missed) (Correct)
- E. It is only useful when analyzing core processes

Explanation: Each cell in a case/function matrix represents a step. The case/function matrix can be used to analyze any type of process, not only core processes.

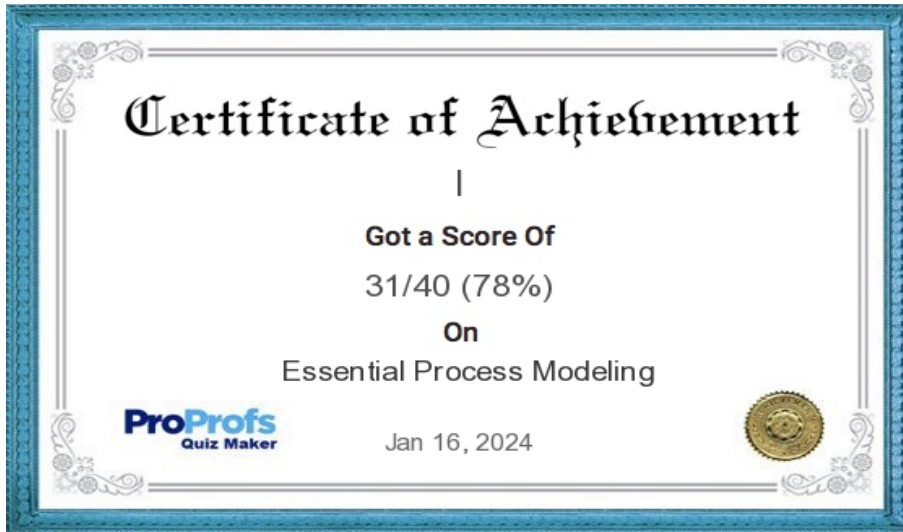
Correct

Points earned: 5 out of 5

Q6) Which of the following statements is true about a process map?

- A. It provides insight into the various steps that are taken within a process (Your Answer)(Correct)
- B. It shows which steps are alternatives of each other
- C. It describes the data that is being processed in a process
- D. It shows the organizational units that are involved in a process (Your Answer)(Correct)
- E. It specifies which participants are involved in a process

## Essential Process Modeling



### Report Summary

Name	: Guest
Your Score	: 31 out of 40 (78%)
Correct Answers	: 4 Questions
Incorrect Answers	: 1 Question
Unanswered	: 0 Questions
Required Passing Grade (%)	: 50%
Time Taken	: 3 mins 11 secs
Date	: Jan 16, 2024



## Your Answers

Correct

Points earned: 5 out of 5

- Q1) If a task has two output arcs (also called flows), it is the same as if the task was followed by an:
- A. XOR-split
  - B. XOR-join
  - C. AND-split (Your Answer)(Correct)
  - D. AND-join
  - E. OR-split
  - F. OR-join

Correct

Points earned: 5 out of 5

- Q2) If a task has two input arcs, it is the same as if the task was preceded by an:
- A. XOR-split
  - B. XOR-join (Your Answer)(Correct)
  - C. AND-split
  - D. AND-join
  - E. OR-split
  - F. OR-join

Incorrect

Points earned: 0 out of 5

- Q3) Which type of gateway moves each token it receives in one of its input arcs to its output arc?
- A. XOR-split
  - B. XOR-join (Correct)
  - C. AND-split
  - D. AND-join (Your Answer)(Incorrect)
  - E. OR-split
  - F. OR-join

Explanation: The XOR-join is a "dumb" type of gateway that simply takes every token it receives from any of its input arc(s) and passes it through to the output arc. So if an XOR-join has two input arcs and it receives one token from each of them, it will produce two tokens in its output arc.

Correct

Points earned: 5 out of 5

Q4) The following BPMN diagram contains an incorrect gateway. Which one?

- A. The XOR gateway following task D
- B. The AND gateway preceding task F (Your Answer)(Correct)
- C. The XOR gateway following task F
- D. The AND gateway following task A

Explanation: The AND-join preceding task F should be an OR-join

Partially Correct

Points earned: 3 out of 5

Q5) The following BPMN diagram contains two incorrect gateways. Which ones?

- A. The XOR gateway after task "Store and print notice"
- B. The XOR gateway preceding task "Hand out cards" (Missed) (Correct)
- C. The AND gateway preceding event "Wednesday morning 2" (Your Answer)(Incorrect)
- D. The AND gateway before task "Plan meeting second intaker" (Your Answer)(Correct)
- E. The AND split after task "Hand out cards"

Explanation: The XOR gateway preceding task "Hand out cards" should be an AND-join. The AND gateway before task "Plan meeting second intaker" should be an OR gateway, or there should be an additional XOR-join gateway before this AND-join gateway.

Partially Correct

Points earned: 4 out of 5

Q6) An IT hardware store provides a Web front-end allowing its customers to purchase IT equipment online (e.g. tablets, laptops, accessories, printers). In the context of the order-to-cash process of this company, which of the following is likely to be modeled as a data store?

- A. The Customer Relationship Management (CRM) system (Your Answer)(Correct)
- B. The shopping cart of a customer purchasing via the Web front-end
- C. The history of a customer's past purchases (Your Answer)(Incorrect)
- D. An invoice
- E. The store's product catalog (Your Answer)(Correct)

Explanation: The shopping cart is a data object that is created specifically for this process. On completion of this process, the shopping cart becomes a purchase order and it is made persistent most likely in a purchases database. The history of customer's past purchases is also a data object that is stored in a purchases database or the CRM system. The invoice is a data object produced as part of the order-to-cash process.

Correct

Points earned: 5 out of 5

Q7) Let us consider the order-to-cash process of a company called CoolIT that sells air conditioning systems. Which of the following is likely to be modeled as a pool?

- A. The customer (Your Answer)(Correct)
- B. A subcontractor of CoolIT (Your Answer)(Correct)
- C. A salesperson at CoolIT
- D. A clerk at the accounts payable department of CoolIT
- E. The accounts receivable department of CoolIT

Explanation: The customer in this process is likely to be modeled as a white-box pool. If CoolIT delegates some tasks to a subcontractor (e.g. installation of air-conditioning systems is done by a subcontractor), the subcontractor is also likely to be modeled as a pool since the subcontractor is an independent business entity.

Partially Correct

Points earned: 4 out of 5

Q8) Which of the following statement(s) do NOT hold?

- A. The target of a message flow may be a task
- B. The source of a message flow may be a task
- C. A message flow can connect a task in a pool to the boundary of another pool
- D. A message flow can connect a task in a pool to another task in the same pool (Your Answer)(Correct)
- E. A message flow may lead to the creation of a data object by the task that receives the message (Your Answer)(Incorrect)

Explanation: Message flows should be used to connect an element in one pool to an element in another pool. One cannot use a message flow for example to connect a task in a pool with another task in the same pool.

# Advanced Process Modeling

## Report Summary

Name : **Guest**  
Your Score : 15 out of 30 (50%)  
Correct Answers : **3 Questions**  
Incorrect Answers : **3 Questions**  
Unanswered : 0 Questions  
Required Passing Grade (%) : 50%  
Time Taken : 3 mins 11 secs  
Date : Jan 16, 2024

## Your Answers

**Incorrect**

Points earned: 0 out of 5

- Q1) Which of the following are possible reasons for decomposing a process model into sub-process models?
- A. When the process model is getting too large to understand and maintain (Your Answer)(Correct)
  - B. When two events of the same type cannot be linked by a sequence flow (Your Answer)(Incorrect)
  - C. When there are too many crossing arcs in the model
  - D. When we want to avoid redundancies between multiple process models that share common parts (Your Answer)(Correct)
  - E. When there are too many end events in a process model and we wish to reduce their number

Explanation: A sub-process is an effective way to reduce the size of a process model. So when the model is getting too large, we can identify fragments of the model that can be "hidden" inside a sub-process. Another reason for using sub-processes is when there are fragments shared between different process models. In this case, by modeling them only once as sub-processes, we can avoid redundancies. Sub-processes do not impact on crossing arcs, since they encapsulate fragments with a single entry and a single exit. Also, the use of sub-processes does not reduce the number of end events in a model.

**Correct**

Points earned: 5 out of 5

Q2) What is wrong with this collaboration diagram?

- A. This collaboration can be fixed by replacing the XOR-split with an event-based gateway
- B. The XOR-join needs to be replaced by an OR-join
- C. The intermediate message flow in the Auctioning Service pool should be replaced by a receive task
- D. This collaboration may deadlock if the seller is already registered (Your Answer)(Correct)
- E. An internal decision in one party must be matched by an XOR-join in the other party

Explanation: This collaboration may deadlock if the seller is already registered, as this party will wait for the account creation request message which in that case will never arrive. To fix this issue, we need to allow the seller to receive the creation confirmation message straightaway in case the seller is already registered. This can be done through an event-based gateway on the Seller pool.

Incorrect

Points earned: 0 out of 5

Q3) Which of the following modeling elements can immediately follow an event-based gateway?

- A. Any intermediate catching event (Missed) (Correct)
- B. Any start message event
- C. Any timer event
- D. Any receive task (Your Answer)(Correct)
- E. Any send task

Explanation: B is incorrect: an event-based gateway cannot be followed by a start event. C is incorrect because it implies that an event-based gateway can be followed by a start timer event, but an event-based gateway cannot be followed by a start event. E is incorrect as an event-based gateway can only be followed by a task, if the task is a receive task.

Correct

Points earned: 5 out of 5

Q4) Which of the following events can be used as a boundary event?

- A. An end error event
- B. An intermediate timer event (Your Answer)(Correct)
- C. An end timer event
- D. An intermediate error event (Your Answer)(Correct)
- E. An intermediate message event (Your Answer)(Correct)

Explanation: Boundary events should be intermediate events (not end events).

Correct

Points earned: 5 out of 5

Q5) Consider the following model. Which of the following statements is true?

- A. If a cancelation request is received after raw materials have been acquired, the request is not considered (Your Answer)(Correct)
- B. An order may be cancelled either if a cancelation request is made by the customer, or if materials are unavailable (Your Answer)(Correct)
- C. Task "Purchase raw materials from Supplier" is always executed
- D. An order may still be canceled even if a customer sends a "Stop cancelation request" (Your Answer)(Correct)
- E. The interruption of the raw materials acquisition sub-process may be triggered from within the process, but outside the activity itself (Your Answer)(Correct)

Explanation: Task "Purchase raw materials" is not executed if materials are not available. An order may still be canceled if the "Stop cancelation request" is sent after 48 hours since the notification of the penalty to the customer. The interruption of sub-process "Acquire raw materials" can be triggered in two ways: internally (via the error event), and externally (via the signal event).

Incorrect

Points earned: 0 out of 5

Q6) Which of the following statements are true about a choreography activity?

- A. A choreography activity represents an interaction between two parties (Your Answer)(Correct)
- B. A choreography activity can be one-way or two-way (Your Answer)(Correct)
- C. A choreography activity captures a unit of work (Your Answer)(Incorrect)
- D. A choreography activity can only follow another activity if the former involves the initiation of the latter activity (Missed) (Correct)
- E. A choreography activity may involve more than two parties (Your Answer)(Correct)

Explanation: A choreography activity represents an interaction between two parties. A precedence relation between two interactions can only be established if the initiator of the second interaction is involved in the preceding interaction. A choreography activity may involve more than two parties in the case of a sub-choreography activity.

# Process Discovery

## Report Summary

Name	: Guest
Your Score	: 13 out of 25 (52%)
Correct Answers	: 3 Questions
Incorrect Answers	: 3 Questions
Unanswered	: 0 Questions
Required Passing Grade (%)	: 50%
Time Taken	: 3 mins 11 secs
Date	: Jan 16, 2024

## Your Answers

Correct

Points earned: 5 out of 5

Q1) Which complementary roles are typically involved in process discovery?

- A. Chief Executive Officer
- B. Process Analyst (Your Answer)(Correct)
- C. Head of Enterprise Architecture
- D. Domain Expert (Your Answer)(Correct)
- E. Chief Information Officer

Explanation: Process discovery typically involves understanding and modeling the operational details of a business process. Process analyst and domain experts provide complementary skills towards this end. The Chief Executive Officer and the Head of Enterprise Architecture are usually concerned with more strategic and less operational questions.

Correct

Points earned: 4 out of 4

Q2) Which aspects should a process analyst pay specific attention to?

- A. Securing support of key persons (Your Answer)(Correct)
- B. Exploring various aspects of the process

- C. Extracting information to be shown in the model (Your Answer)(Correct)
- D. Making models look nice (Your Answer)(Correct)

Explanation: Process analysts should get the right people on board, identify patterns in the information provided by domain experts, and pay attention to model aesthetics. They should not explore various aspects of the process, but instead should progress step-by-step according to a precise set of working hypotheses.

Incorrect

Points earned: 0 out of 4

Q3) Which input is not appropriate for evidence-based discovery?

- A. Observing how a process works (Your Answer)(Incorrect)
- B. Studying reference models (Correct)
- C. Reading documentation of a process
- D. Inspecting log data of the process

Explanation: Reference models capture processes in a generic way, independent from how a specific company organizes its processes. They might help to understand how a particular business generally works, but they do not help in understanding the specifics of a process of a particular company.

Correct

Points earned: 4 out of 4

Q4) Which discovery method provides the best objectivity?

- A. Interviewing process participants
- B. Observing participants working in the process
- C. Reading documentation material
- D. Analyzing log data (Your Answer)(Correct)

Incorrect

Points earned: 0 out of 4

Q5) What needs to be considered when modeling a process?

- A. The boundaries of the process (Your Answer)(Correct)
- B. The sentiment of the domain expert (Your Answer)(Incorrect)
- C. The handovers between resources (Your Answer)(Correct)
- D. The skills of the process participants

Explanation: The modeling of a process focuses on what is happening in the course of process execution. Therefore, the boundaries are of utmost importance as much as the handovers. Sentiments and skills are important aspects when it comes to process analysis, but not for sketching out a process model.



Q6) Process modeling guidelines aim to contribute to which goals?

- A. Making the models uniform (Missed) (Correct)
- B. Making it easier to compare models (Your Answer)(Correct)
- C. Helping a reader to understand the model quickly (Your Answer)(Correct)
- D. Making process modeling more sophisticated

Explanation: Process modeling guidelines aim to help in getting better results from modeling. Therefore, they help to improve model aesthetics, uniformity and comparability, such that a reader can grasp the meaning more easily. Typically, the set of a notation is restricted such that the guidelines prevent modeling from becoming overly sophisticated.

# Qualitative Process Analysis New

## Report Summary

Name : **Guest**  
Your Score : 23 out of 25 (92%)  
Correct Answers : **3 Questions**  
Incorrect Answers : **0 Questions**  
Unanswered : 0 Questions  
Required Passing Grade (%) : 50%  
Time Taken : 1 mins 43 secs  
Date : Jan 16, 2024

## Your Answers

**Correct**

Points earned: 5 out of 5

- Q1) A purchase-to-pay process starts when an employee (the “originator”), fills in a purchase requisition and attaches one or several quotes. The purchase requisition goes through two approvals: a “conformance approval” by a purchasing officer and a financial approval by the owner of the financial account from which the purchase is made. Which of the following items is/are over-production waste(s)?
- A. The account owner accepts the purchase requisition but the purchasing officer rejects it
  - B. The purchasing officer accepts the purchase requisition but the account owner rejects it
  - C. Both the account owner and the purchasing officer reject the purchase requisition
  - D. Both the account owner and the purchasing officer accept the purchase requisition but the originator later cancels the purchase
  - E. 30% of purchase requisitions are rejected either by the account owner or by the purchasing officer and are not re-submitted (i.e. the purchase requisition is withdrawn) (Your Answer)(**Correct**)
  - F. The supervisor sends back the purchase requisition to the originator due to an error in the selection of suppliers

**Correct**

Points earned: 5 out of 5

Q2) In the context of an order-to-cash process, which of the following is/are likely to be business-value-adding step(s)?

- A. Check availability of products in stock (Your Answer)(Correct)
- B. Match payment with invoice (Your Answer)(Correct)
- C. Remind customer that payment is overdue (Your Answer)(Correct)
- D. Confirm delivery date with the customer
- E. Handle returned merchandise due to internal mistake

Explanation: "Confirm delivery date with the customer" is value-adding (meaning customer-value-adding) rather than business value-adding. "Handle returned merchandise due to internal mistake" is non-value-adding; it is a form of rework. The first three activities in the list are business value-adding.

Correct

Points earned: 5 out of 5

Q3) In a complaint-to-resolution process, which of the following is/are likely to be value-adding steps?

- A. Enter complaint details in the issue tracking system
- B. Send e-mail to customer to acknowledge receipt of complaint (Your Answer)(Correct)
- C. Investigate complain and devise possible resolution (Your Answer)(Correct)
- D. Obtain approval from manager for proposed resolution
- E. Discuss proposed resolution with customer (Your Answer)(Correct)
- F. Apply approved resolution (Your Answer)(Correct)

Explanation: "Enter complaint details in the issue tracking system" is at best a business-value-adding step. The business needs to maintain and track information about complains. However, the customer does not care about those records - they care about their complaint being resolved. "Send acknowledgment e-mail" can be thought to be value-adding as it allows the customer to be reassured that their complain is being handled. Investigating, devising a resolution, discussing with the customer and applying the resolution are all value-adding - they are precisely what the customer wants to get done. "Obtain approval from manager for proposed resolution" is not value-adding, it is business-valued-adding. It allows the business to maintain internal controls and ensure that complains are resolved in a manner consistent with business goals.

Partially Correct

Points earned: 4 out of 5

Q4) Which of the following techniques are useful when prioritizing issues in a process?

- A. Cause-effect diagrams
- B. Why-why diagrams
- C. Value-added analysis
- D. Pareto charts (Missed) (Correct)
- E. Issue register (Your Answer)(Correct)

Explanation: Pareto charts are directly intended as a technique to prioritize issues. Keeping an issue register also allows to determine the relative priority of different issues. Cause-effect diagrams, why-why diagrams and value-added analysis are not directly useful for the purpose of prioritizing issues, although they can be used to analyze issues in different ways.

## Partially Correct

Points earned: 4 out of 5

Q5) We consider the following process for handling claims for disability insurance at a insurance company called InsureIT. When a claim is received, a junior claims officer first enters the claim details into the insurance information system and performs a basic checks. Next, the claim is moved to a senior claims officer who performs an in-depth assessment of the reported disability and estimates the monthly benefit entitlement (i.e. how much monthly compensation is the claimant entitled to, and for what period of time). In the case of short-term disability benefits, the senior claims handler can perform the benefit assessment without requiring further documentation and notifies the customer of the outcome via e-mail or postal mail. In the case of long-term disability claims (more than three months), the senior claims handler requires a full medical report in order to assess the benefit entitlements. The process for obtaining the medical report is explained below. Once the senior claims handler has received the medical report, they can assess the benefits entitlement. The senior claims handler then notifies the customer of the outcome of the assessment and their monthly entitlement if applicable. The decision is recorded in the insurance information system. In case a claim gives rise to an entitelement, a finance officer triggers the first entitlement payment manually and schedules the monthly entitlement for subsequent months. When a medical report is required, a junior claims handler contacts the customer (by phone or e-mail) to notify them that their claim is being assessed, and to ask the customer to send a signed form authorizing InsureIT to request medical reports from their health provider. Once the authorization has been received, the junior claims handler sends (by post) a request for medical reports to the health provider together with the insurer's letter of authorization. Hospitals reply to InsureIT either by post or in some cases via e-mail. Question: Which steps in the above process are value-adding?

- A. Perform basic check (Your Answer)(Incorrect)
- B. Request medical report from health provider
- C. Assess benefit entitlements (Your Answer)(Correct)
- D. Notify customer (Your Answer)(Correct)
- E. Wait for medical report

Explanation: "Perform basic check" and "Request medical report" are business value-adding, rather than value-adding. "Wait for medical report" is non-value-adding. Steps "Assess benefits" and "Notify customer" are value-adding.

# Quantitative Process Analysis

## Report Summary

Name	: Guest
Your Score	: 4.8 out of 5 (96%)
Correct Answers	: 4 Questions
Incorrect Answers	: 0 Questions
Unanswered	: 0 Questions
Required Passing Grade (%)	: 50%
Time Taken	: 58 secs
Date	: Jan 16, 2024
Your Result	: Pass

## Your Answers

Correct

Points earned: 1 out of 1

- Q1) Consider a business process for car repair in a garage. One of the tasks in the process is "Diagnose engine failure" and it consists in running different tests to identify the cause of an engine failure. From interviews with the stakeholders, you find out that the task is oftentimes relatively simple, and can be completed in less than an hour or a bit more than an hour. It is not uncommon however that an engine failure diagnosis takes between 2 and 4 hours and on occasions even a full workday. The estimated mean execution time is one hour. In the absence of further data, what type of probability distribution would you choose for this task when simulating the corresponding process model?
- A. Normal
  - B. Exponential (Your Answer)(Correct)
  - C. Fixed-value
  - D. Uniform

Explanation: The distribution of cycle times for this task appears to have a long tail since generally it takes an hour or less but sometimes it can take even 8 hours. This is more characteristic of an exponential distribution than of a normal distribution. A fixed-value for the task duration cannot adequately reflect reality of course, and neither does a uniform distribution because larger durations are less frequent than smaller durations.

- Q2) We consider the following process for handling claims for disability insurance at a insurance company called InsureIT. When a claim is received, a junior claims officer first enters the claim details into the insurance information system and performs a basic checks. Data entry and the basic check usually take 10 minutes in total. It is rare for the claim to be rejected at this stage (it only happens in 2% of cases) and for the purpose of the questions below we can assume that claims are never rejected at this stage. Next, the claim is moved to a senior claims officer who performs an in-depth assessment of the reported disability and estimates the monthly benefit entitlement (i.e. how much monthly compensation is the claimant entitled to, and for what period of time). In the case of short-term disability benefits, the senior claims handler can perform the benefit assessment without requiring further documentation. In these cases, the benefit assessment takes 20 minutes. This time includes the time needed to register the entitlement on the insurance information system (if applicable) and inform the customer of the outcome via e-mail or postal mail. However, in the case of long-term disability claims (more than three months), the senior claims handler requires a full medical report in order to assess the benefit entitlements. The process for obtaining the medical report is explained below. Once the senior claims handler has received the medical report, they can assess the benefits in about one hour on average. The senior claims handler then sends a response letter to the customer (by e-mail and post) to notify the customer of their monthly entitlement and the conditions of this entitlement (e.g. when will the entitlement be stopped or when is it due for renewal). The entitlement is recorded in the insurance information system. About 80% of claims give rise to an entitlement. In case a claim gives rise to an entitelement, a finance officer triggers the first entitlement payment manually and schedules the monthly entitlement for subsequent months. The finance officer takes on average 20 minutes to handle an entitlement. Finance officers handle payments in batches, once per working day. When a medical report is required, a junior claims handler contacts the customer (by phone or e-mail) to notify them that their claim is being assessed, and to ask the customer to send a signed form authorizing InsureIT to request medical reports from their health provider (hospital or clinic). This step takes 10 minutes of work to a junior claims handler. Once the authorization has been received, the junior claims handler sends (by post) a request for medical reports to the health provider together with the insurer's letter of authorization. The step of sending the request to the health provider takes about 10 minutes. Hospitals reply to InsureIT either by post or in some cases via e-mail. On average, it takes about 15 working days for InsureIT to obtain the medical reports from the health provider (including 4 working days required for the back-and-forth postal mail). This average however hides a lot of variance. Some health providers are very cooperative and respond within a couple of working days of receiving the request. Others however can take up to 30 working days to respond. As a result, the average time between a claim being lodged and a decision being made is 3 working days in the case of short-term disability claims,

and 20 working days for long-term disability claims. The insurance company receives 2000 disability claims per year, out of which 20% are for short-term disability and 80% for long-term disability. Question: What is the (average) cycle time of the above process (including waiting time)?

- A. 3 days
- B. 16.6 days (Your Answer)(Correct)
- C. 20 days
- D. 24.4 DAYS

Explanation: 20% of claims are for short-term disability and 80% for long-term disability. The average time between a claim being lodged and a decision being made is 3 working days in the case of short-term disability claims, and 20 working days for long-term disability claims. Thus average cycle time is  $0.2 \times 3 + 0.8 \times 20$

Correct

Points earned: 1 out of 1

Q3) Given the insurance claim scenario of the previous question, which of the following calculations corresponds to the theoretical cycle time?

- A.  $10 + 0.8 \times 20 + 0.2 \times (10 + 10 + 60) + 0.8 \times 20$
- B.  $10 + 0.2 \times 20 + 0.8 \times (10 + 10 + 60) + 20$
- C.  $10 + 0.2 \times 20 + 0.8 \times (10 + 10 + 60) + 0.8 \times 20$  (Your Answer)(Correct)
- D.  $10 + 0.2 \times 20 + 0.8 \times (10 + 10 + 60 + 0.8 \times 20)$

Explanation: 10 mins for basic initial check, in 20% of cases 20 minutes are spent in assessment and in 80% of cases 60 minutes (one hour) are spent in the assessment. In 80% of cases, 20 minutes are spent to schedule the payment of entitlements. Other activities in the process are either non-value-adding.

Correct

Points earned: 1 out of 1

Q4) In the context of the insurance claims scenario above, which of the following statements is not needed when calculating cycle time efficiency?

- A. For short-term disability insurance, it takes 3 working days disability claims to complete the process
- B. 20% of claims are for short-term disability
- C. 80% of claims for long-term disability
- D. There are 2000 disability claims per year (Your Answer)(Correct)

Explanation: The calculation of cycle time based on flow analysis does not require one to know the arrival rate of new cases. The other three statements in the list are required to calculate average cycle time (including waiting times)

Partially Correct

Points earned: 0.8 out of 1

- Q5) Which of the following statements defines a quality metric in the context of the claims handling process above?
- A. Number of monthly claims received
  - B. Percentage of the working time of senior claims handlers spent in claims assessment (Your Answer)(Incorrect)
  - C. Percentage of claims that give rise to entitlements
  - D. Percentage of claim decisions that are contested by customers (Your Answer)(Correct)
  - E. Percentage of short-term disability claims that take more than 5 work days to be assessed (Your Answer)(Correct)

Explanation: The number of monthly claims is not a performance metric for this process as it measures the input of the process and not its performance. The percentage of time spent by claims handlers in the process is a measure of efficiency or cost, but not a measure of quality. The third metric is arguably not a performance metric as it measures the input (how many received claims are eligible for entitlements?) rather than the process performance. The fourth metric is clearly a quality metric as it measures an error rate. The last metric measures the percentage of Service-Level Agreement violations (assuming that 5 days is the maximum amount of time for handling short-term claims in the company's service-level agreement). Therefore this is a measure of error rate and can be used as a measure of quality.



# Process Redesign

## Report Summary

Name	: Guest
Your Score	: 14 out of 25 (56%)
Correct Answers	: 2 Questions
Incorrect Answers	: 2 Questions
Unanswered	: 0 Questions
Required Passing Grade (%)	: 50%
Time Taken	: 1 mins 37 secs
Date	: Jan 16, 2024

## Your Answers

Correct

Points earned: 5 out of 5

Q1) Which of the following is NOT a dimension of the Devil's Quadrangle?

- A. Time
- B. Performance (Your Answer)(Correct)
- C. Cost
- D. Quality
- E. Flexibility

Explanation: This framework is based on the four performance dimensions discussed in Chapter 7, namely time, cost, quality and flexibility. Ideally, a business process redesign decreases the time required to handle a case, it lowers the required cost of executing the process, it improves the quality of the service delivered, and it increases the ability of the business process to deal with variation.

Incorrect

Points earned: 0 out of 5

Q2) Which statement about process redesign methodologies is NOT correct?

- A. Using the existing process as a starting point is the most popular approach

Historically, process redesign followed a clean slate approach (Your Answer)(Incorrect)

- B.
- C. By taking the existing process as a starting point, it is much easier to get rid of the inefficiencies that have crept into the process (Missed) (Correct)
- D. The promise of starting from a blueprint is that it will give an up-to-date and standardized view on how to carry out a business process

Explanation: Historically, process redesign would follow a clean slate approach: the existing process would be completely abandoned and new ways of producing a particular product or service would be developed. It is for good reason that Michael Hammer, one of the gurus behind process redesign famously quipped: "Obliterate, don't automate." There are certain advantages to such an approach: It is much easier to get rid off the inefficiencies that have crept into the process by organic growth.

Incorrect

Points earned: 0 out of 5

- Q3) The case-based work heuristic is the following: "Consider removing batch-processing and periodic activities from a business process". To what class of redesign heuristics does this heuristic belong?
- A. Organization Heuristics
  - B. Information Heuristics (Your Answer)(Incorrect)
  - C. Customer Heuristics
  - D. Business Process Behavior Heuristics
  - E. Business Process Operation Heuristics (Correct)

Correct

Points earned: 5 out of 5

- Q4) What is the name of the redesign heuristic that suggests checking the completeness and correctness of incoming materials?
- A. Empower
  - B. Control addition (Your Answer)(Correct)
  - C. Buffering
  - D. Centralization
  - E. Exception

Partially Correct

Points earned: 4 out of 5

- Q5) Which of the following is/are part of a product data model?
- A. Information elements (Your Answer)(Correct)
  - B. Leaf elements (Missed) (Correct)
  - C. A business process

D. Production rules (Your Answer)(Correct)

E. Performance characteristics

# Process Automation

## Report Summary

Name	: Guest
Your Score	: 18 out of 30 (60%)
Correct Answers	: 1 Question
Incorrect Answers	: 1 Question
Unanswered	: 0 Questions
Required Passing Grade (%)	: 50%
Time Taken	: 1 mins 27 secs
Date	: Jan 16, 2024

## Your Answers

### Partially Correct

Points earned: 4 out of 5

Q1) Which of the following are explicit benefits that the use a BPMS brings to an organization.

- A. It allows to reduce errors during handovers of work in a process (Your Answer)(Correct)
- B. It helps to enforce key business rules (Your Answer)(Correct)
- C. It provides transparency during the execution of processes (Your Answer)(Correct)
- D. It allows to efficiently store business-critical data (Your Answer)(Incorrect)
- E. It automates a large number of tasks, replacing human workers

Explanation: In general, a BPMS per se does not automate human tasks. It rather helps to route those tasks to the right process participants. It is also not intended as a way to store business-critical data - this is the role of database management systems.

### Incorrect

Points earned: 0 out of 5

Q2) Which of the following is NOT a typical component of a Business Process Management System?

- A. A process modeling tool

- B. An execution engine (Your Answer)(Incorrect)
- C. An Enterprise Resource Planning (ERP) system (Correct)
- D. A worklist handler

Explanation: An ERP system provides a range of business function related for example to financial management, human resource management, etc. A BPMS will in some cases interact with an ERP system in order to trigger tasks in a process for example, but the ERP in itself is an external component vis-a-vis of the BPMS.

Correct

Points earned: 5 out of 5

Q3) Which of the following tasks is NOT needed when automating a conceptual process model?

- A. Specify properties for messages, errors and signals
- B. Convert send and receive tasks into service tasks (Your Answer)(Correct)
- C. Remove physical data objects and data stores
- D. Merge consecutive activities if allocated to the same resource

Explanation: There is no need to convert a send or a receive task into a service task, since both send and receive tasks are already automated tasks.

Partially Correct

Points earned: 3 out of 5

Q4) How can a manual task be linked to a BPMS?

- A. By implementing it via a service task (Your Answer)(Correct)
- B. By implementing it via a sub-process (Your Answer)(Incorrect)
- C. A manual task can never be linked to a BPMS (Your Answer)(Incorrect)
- D. By implementing it via a user task (Your Answer)(Correct)
- E. By implementing it as a receive task (Your Answer)(Correct)

Explanation: A manual task requires the interaction with a participant. So long as this interaction can be achieved via the use of some supporting technology (e.g. a bar scanner), the manual task can be implemented via an automated task. Note that in the case of a receive task, the BPMS will only be aware of the work item's completion. If the participant involved in the manual task can notify the BPMS of the task completion using the worklist handler of the BPMS, the manual task can be turned into a user task.

Partially Correct

Points earned: 2 out of 5

Q5) Which of the following elements of a conceptual process model can be directly interpreted by a BPMS?

- A. Electronic data stores

- B. Pools and lanes (Your Answer)(Incorrect)
- C. Physical data objects and data stores (Your Answer)(Incorrect)
- D. Manual tasks (Your Answer)(Incorrect)
- E. Send tasks (Your Answer)(Correct)

Partially Correct

Points earned: 4 out of 5

Q6) Which of the following is an execution property?

- A. Loop conditions (Your Answer)(Correct)
- B. Process variables (Your Answer)(Correct)
- C. Task data inputs (Your Answer)(Correct)
- D. Data associations (Missed) (Correct)
- E. Lane names

# Process Intelligence

## Report Summary

Name	: Guest
Your Score	: 13 out of 20 (65%)
Correct Answers	: 2 Questions
Incorrect Answers	: 1 Question
Unanswered	: 0 Questions
Required Passing Grade (%)	: 50%
Time Taken	: 43 secs
Date	: Jan 16, 2024

## Your Answers

### Partially Correct

Points earned: 2 out of 4

Q1) Which attributes are minimally required to be recorded in each event of an event log, in order to make the log suitable for applying log-based process analysis techniques?

- A. A reference to a task (Missed) (Correct)
- B. A reference to data elements produced by a task
- C. A reference to a specific case (Your Answer)(Correct)
- D. A reference to a point in time (Missed) (Correct)

Explanation: For many log-based process analysis techniques, it is a minimum requirement that each event in the log refer to (i) one case, (ii) one task, and (iii) a point in time.

### Partially Correct

Points earned: 3 out of 4

Q2) Which concepts belong to the view of a process participant on an executing process?

- A. work item (Your Answer)(Correct)
- B. work around

- C. worklist (Your Answer)(Correct)
- D. homework (Your Answer)(Incorrect)

Explanation: Each participant typically has a personal worklist that shows the set of work items that still need to be worked on.

Incorrect

Points earned: 0 out of 4

- Q3) What does the challenge of correlation refer to in the context of event log extraction?
- A. It refers to the problem of finding connections between rankings of data elements. (Your Answer)(Incorrect)
  - B. It relates to the problem of ordering the events on the time axis.
  - C. It refers to the problem of identifying the case an event belongs to. (Correct)
  - D. It refers to the problem of grouping events with high and low values.

Correct

Points earned: 4 out of 4

- Q4) Which of the following criteria are important for robust process discovery?
- A. Fitness (Your Answer)(Correct)
  - B. Simplicity (Your Answer)(Correct)
  - C. Precision (Your Answer)(Correct)
  - D. Generalization (Your Answer)(Correct)

Explanation: All four criteria are important for robust process discovery.

Correct

Points earned: 4 out of 4

- Q5) What does separation of duties mean?
- A. Two processes are not allowed to interact.
  - B. Two tasks are not allowed to be executed by the same participant. (Your Answer)(Correct)
  - C. Two participants are not allowed to view the same data.
  - D. Two data objects are not allowed to be used in the same process.