



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY
FACULTY OF COMPUTING AND INFORMATICS
DEPARTMENT OF INFORMATICS

QUALIFICATION : BACHELOR OF INFORMATICS	
COURSE NAME: PRINCIPLES AND APPLICATION OF INFORMATICS	COURSE CODE: PAI621s
QUALIFICATION CODE: 07BAIT	LEVEL: 6
SESSION: JANUARY 2023	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 80

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER	
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MODERATOR	Ms Albertina Shilongo

INSTRUCTIONS
<ol style="list-style-type: none">1. Answer ALL the questions on the answer scripts provided.2. Write clearly and neatly.3. Be guided by the number of marks allocated when answering the questions.4. Show all your calculations.5. Number your questions clearly.

PERMISSIBLE MATERIALS
<ol style="list-style-type: none">1. Calculator.

THIS QUESTION PAPER CONSISTS OF 5 PAGES
(Excluding this front page)

Section A: True and False Questions

[15 marks]

1. Like the domain expert, the process analyst is familiar with all details of the business process. [1 mark]
2. The evaluation phase is concerned with the definition of an initial list of processes. [1 mark]
3. Process identification is continuous by nature to enable organisations to maximize profit. [1 mark]
4. A business process architecture can have more than three levels. [1 mark]
5. When two or more activities are not interdependent, they are concurrent. [1 mark]
6. With an XOR-split gate at least two outgoing branches can be taken. [1 mark]
7. Joins decision have one incoming sequence flow and multiple outgoing sequence flows (representing the branches that diverge). [1 mark]
8. Sub-process does not have a start event and an end event. [1 mark]
9. Collapsing a sub-process imply losing its content. [1 mark]
10. Automatic process discovery is part of the workshop-based discovery. [1 mark]
11. Conducting interviews in a backward way permits us to follow the flow of processing in the order of how it unfolds. [1 mark]
12. Steps that do not add value to the customers mean that they are not necessary for the business. [1 mark]
13. You can eliminate waste by automation: [1 mark]
14. Why –why diagram depicts the relationship between a given negative effect and its causes. [1 mark]
15. One of the reason for re-designing an existing business process relates to organic nature of the organisations. [1 mark]

Section B: Structured Questions

[28 marks]

Question1: In nutshell, describe how the different technologies progress differently across the Gartner Hype Cycle phases. [6 marks]

Question2: Propose and describe the criteria's that organisations can use to evaluate process priority. [6 marks]

Question3: What is a global process and why is it critical for process modelling? [5 marks]

Question4: In a modeling project – Justify why both process analyst and domain expert are needed. [6 marks]

Question 5: Explain the limitation of being a passive observer when gathering information about process. [5 marks]

Section C: Practical Questions

[37 marks]

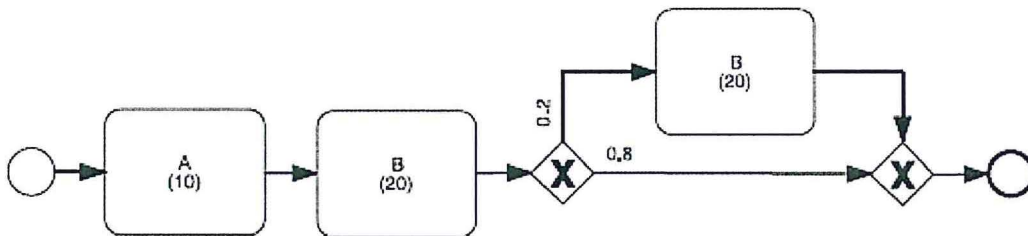
Question 1: Consider the following summary of issues reported in a travel agency. Identify the main issue and construct a cause effect diagram for the traveling agency. [7 marks]

A travel agency has recently lost several medium-sized and large corporate customers due to complaints about poor customer service. The management team of the travel agency decided to appoint a team of analysts to address this problem. The team gathered data by conducting interviews and surveys with current and past corporate customers and also by gathering customer feedback data that the travel agency has recorded over time. About 2 % of customers complained about errors that had been made in their bookings. In one occasion, a customer had requested a change to a flight booking. The travel agent wrote an e-mail to the customer suggesting that the change had been made and attached a modified travel itinerary. However, it later turned out that the modified booking had not been confirmed in the flight reservation system. As a result, the customer was not allowed to board the flight and this led to a series of severe inconveniences for the customer. Similar problems had occurred when booking a flight initially: the customer had asked for certain dates, but the flight tickets had been issued for different dates. Additionally, customers complained of the long times it took to get responses to their requests for quotes and itineraries. In most cases, employees of the travel agency replied to requests for quotes within 2–4 working hours, but in the case of some complicated itinerary requests (about 10 % of the requests), it took them up to 2 days. Finally, about 5 % of customers also complained that the travel agents did not find the best flight connections and prices for them. These customers essentially stated that they had found better itineraries and prices on the Web by searching by themselves.

Question 2: When errors occur in business process, they need to be handled with exceptions. Mention the type of exception listed in the table. Describe how they occur, and handled in organisations. [9 marks]

No.	Exception Symbol	Name and describe how they occur and are handled in organisations
A		
B		
C		

Question3: Calculate the cycle time for the above process. Illustrate all the calculation steps. [6 marks]



Question4: Transfer the following verbal description into a business process management notation (BPMN).
[15 marks]

- a) Upon receipt of a marketing campaign request by the Marketing & Sales department, the marketing manager has to define the marketing plan.
- b) After defining the marketing plan, the department has to define the goals of the campaign, set a budget (based on the available budget) and determine the target audience for this campaign at the same time.
- c) Afterwards, the department has to plan the measures of doing this campaign.
- d) The department may choose to introduce the products on trade fairs, publish the products on the Internet or to introduce the products in the Online-Marketing.
- e) Once the department decides on one of the measures to perform the campaign, marketing activities of this campaign have to be evaluated.
- f) And finally, the process ends when the marketing activities are successfully evaluated.

The End.



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