



NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF INFORMATICS

QUALIFICATION: Bachelor of Informatics	
QUALIFICATION CODE: 07BACS	LEVEL: 6
COURSE: Business Analysis and Process management	COURSE CODE: BAP 620S
DATE: November 2019	SESSION 1
DURATION: 2 Hours	MARKS: 100

FIRST OPPORTUNITY EXAMINATION PAPER	
EXAMINERS	1. Mr Admire Kachepa 2. Dr Gloria Iyawa
MODERATOR	Ms Helena Nahum

INSTRUCTIONS
1. Answer all questions .
2. When writing take the following into account: The style should inform than impress, it should be formal, in third person, paragraphs set out according to ideas or issues and the paragraphs flowing in a logical order. Information provided should be brief and accurate.
3. Please, ensure that your writing is legible, neat and presentable .

THIS EXAMINATION PAPER CONSISTS OF 7 PAGES (Including this front page)

SECTION A MULTIPLE CHOICE QUESTIONS

[20 Marks]

Choose the correct answer. Only one answer per question is correct.

1. What do business processes define?
 - A. The company's strategy
 - B. The efficiency of process execution
 - C. The end-to-end series of events for interacting with customers
 - D. Only the in-house services

2. First time documentation of a business process requires which task?
 - A. Consulting external experts
 - B. Discovering the implicit process
 - C. Defining the process
 - D. Evaluating standard process frameworks

3. At least 3 elements can be distinguished to express the aims of an organisation. What are they?
 - A. End, Means, and Assessment
 - B. Plan, Execute, and Control
 - C. Mission, Vision, and Goals
 - D. Vision, Goals, and Objectives

4. What is the primary purpose of the usage of process models?
 - A. Standardisation of business processes
 - B. Preparation of training material for the launch of the processes
 - C. Analysis, documentation and design of business processes
 - D. A system for measurement of process cycle times

5. An important step in process design is ...
 - A. The definition of the company's strategy
 - B. The development of a new process related compensation system
 - C. The development and definition of useful key performance indicators (KPI's)
 - D. The selection and deployment of external consultants

6. On what are KPI's (Key Performance Indicators) based?
 - A. Process costs
 - B. Cycle costs
 - C. Number of involved employees
 - D. Strategy and business goals

7. What describes a feature that is necessary to achieve a goal?
 - A. Key Performance Indicator
 - B. Business Process Metric
 - C. Maturity Level
 - D. Critical Success Factor

8. What is the biggest benefit of using BPM-technologies?
 - A. The use of standards to support the whole BPM-lifecycle
 - B. The usage of the technology provides a comprehensive document management
 - C. The graphical presentation for the automation of workflows
 - D. The possibility of programming in Business Process Execution Language

9. SMART stands for
 - A. Specific, Measurable, Actionable, Relevant, Timely
 - B. Specific, Measurable, Actionable, Repeatable, Timely
 - C. Supporting, Measurable, Actionable, Relevant, Timely
 - D. Specific, Measurable, Actionable, Relevant, Transparent

10. Business process management projects
 - A. Should not require management support
 - B. Should cover as many processes and departments as possible
 - C. Should be kept as small as possible to gain quick wins
 - D. Require constant change management

11. What is one of the primary purposes of process modelling?
 - A. Verbal description of the process features
 - B. Visual illustration of process features to ensure better communication
 - C. Presentation of a process-lifecycle
 - D. Creation of specifications for process simulation

12. What is a key objective of Process Discovery?
 - A. Transforming an existing process into an executable format
 - B. Identifying Business Stakeholders and Subject Matter Experts
 - C. Optimising a business process through simulation alternatives
 - D. Making explicit the current business performed

13. Process Models are descriptions or abstractions of the work performed. However which test should they be subject to?
 - A. A model must be complete
 - B. A model must identify all process roles and participants
 - C. A model must mean only one something
 - D. A model must be restricted to one organisation

14. Which role do business rules play in the execution of a process?
 - A. Usually they are not important in the execution of processes
 - B. They determine how activities shall be performed
 - C. They manage the interaction with the customer in automated processes
 - D. They always control only parallel processes

15. An oil Company is drilling exploratory oil wells in Namibia to replenish their reserves. Modelled in BMM, What is the role of the strategy “Drill for oil in Namibia” with respect to the Goal “Replenish reserves”?
- It is part of the goal
 - It implements the goal
 - It channels efforts toward the Goal
 - It is a component of the plan for the goal
16. Process Analysis is performed to identify process inefficiencies. Which activity is also true about Process Analysis?
- It is performed exclusively on an “as – is” process
 - It involves the process analysis experts without the participation of the process participants
 - It identifies the root cause of the inefficiencies
 - It is done following process development
17. Shilongo Company hired Adok Investments to design a new “Customer Order Taking” process. The first activity of the BPM consultant should be to
- Understand the objectives of the sponsor
 - Collect the performance data of the actual process
 - Ensure that IT will not influence the initiative
 - Build and submit a project plan.
18. Which is NOT part of the most common initiatives behind business process design projects
- Customer and supply chain management
 - Operational performance improvement
 - Cost reduction
 - None of the above
19. How could Governance be defined, in the case of a business or a non-profit organisation?
- Rules of law
 - Programs, initiatives or activities considered leading edge or exceptional models to follow
 - Step by step descriptions of tasks required to support and carry out organisational polices
 - Consistent management, cohesive polices, processes and decision- rights
20. Which statement about a sequence flow is True?
- It can connect Activities from two different Participants of the Process
 - It can have two Activities as the source and one Gateway as the target
 - It cannot have a compensation Intermediate Event placed on the boundary of an Activity as its source

- D. It can connect a Gateway of a parent Process to a Task of an embedded Sub-process

SECTION B STRUCTURED QUESTIONS

[40 marks]

Answer all questions in this section. Marks will be deducted for unclear hand writing, bad grammar and wrong spellings

Question 1

[12 Marks]

One possible use of a process model is to prescribe how activities must/should be done, in contrast to the process itself, which is really what happens. Evaluate the THREE goals of a good business process model.

Question 2

[8 Marks]

Organisations are supported by a number of business process types. Name and explain the types of processes that are available.

Question 3

[20 Marks]

Different process design projects will target different areas of business activity, according to organisational focus and requirements. However, most process design projects are driven by a combination of the organisational focus and the common requirements. Explain FOUR such requirements.

SECTION C LONG QUESTIONS

[40 Marks]

Question 1

[20 Marks]

The structure of organisations is usually defined as divisions, departments and sections designed towards a specific operational function such as sales or human resources. The employees in these areas are usually experts in their field and dedicated towards specific tasks related to the operational function. Explain in a well presented essay how you would design the end-to-end business processes in such an organisation to ensure that the process flow is optimal towards integrating all the stakeholders of the process.

Question 2

[20 Marks]

Define a Process and illustrate a process in each of these industries with a suitable diagram.

- A dental clinic
- A university
- A food wholesaler

TOTAL MARKS 100



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF INFORMATICS

QUALIFICATION: Bachelor of Informatics	
QUALIFICATION CODE: 07BACS	LEVEL: 6
COURSE: Business Analysis and Process management	COURSE CODE: BAP 620S
DATE: November 2019	SESSION 1
DURATION: 2 Hours	MARKS: 100

FIRST OPPORTUNITY MEMORANDUM	
EXAMINERS	1. Mr Admire Kachepa 2. Dr Gloria Iyawa
MODERATOR	Ms Helena Nahum

INSTRUCTIONS TO MODERATOR/SECOND EXAMINER
<ol style="list-style-type: none">1. Please use the memorandum or sample solutions to guide your marking.2. When marking you should be guided by the allocation of marks.3. Sample answers or solutions appear in bold.4. Reasonable, in depth or innovative correct solutions provided by the students should be allocated marks even though not provided in this memorandum

THIS MEMORANDUM CONSISTS OF 9 PAGES (Including this front page)

SECTION A MULTIPLE CHOICE QUESTIONS

[20 Marks]

Choose the correct answer. Only one answer per question is correct.

1. What do business processes define?
 - A. The company's strategy
 - B. The efficiency of process execution
 - C. The end-to-end series of events for interacting with customers
 - D. Only the in-house services

2. First time documentation of a business process requires which task?
 - A. Consulting external experts
 - B. Discovering the implicit process
 - C. Defining the process
 - D. Evaluating standard process frameworks

3. At least 3 elements can be distinguished to express the aims of an organisation. What are they?
 - A. End, Means, and Assessment
 - B. Plan, Execute, and Control
 - C. Mission, Vision, and Goals
 - D. Vision, Goals, and Objectives

4. What is the primary purpose of the usage of process models?
 - A. Standardisation of business processes
 - B. Preparation of training material for the launch of the processes
 - C. Analysis, documentation and design of business processes
 - D. A system for measurement of process cycle times

5. An important step in process design is ...
 - A. The definition of the company's strategy
 - B. The development of a new process related compensation system
 - C. The development and definition of useful key performance indicators (KPI's)
 - D. The selection and deployment of external consultants

6. On what are KPI's (Key Performance Indicators) based?
 - A. Process costs
 - B. Cycle costs
 - C. Number of involved employees
 - D. Strategy and business goals

7. What describes a feature that is necessary to achieve a goal?
 - A. Key Performance Indicator
 - B. Business Process Metric
 - C. Maturity Level
 - D. Critical Success Factor

8. What is the biggest benefit of using BPM-technologies?
 - A. The use of standards to support the whole BPM-lifecycle
 - B. The usage of the technology provides a comprehensive document management
 - C. The graphical presentation for the automation of workflows
 - D. The possibility of programming in Business Process Execution Language

9. SMART stands for
 - A. Specific, Measurable, Actionable, Relevant, Timely
 - B. Specific, Measurable, Actionable, Repeatable, Timely
 - C. Supporting, Measurable, Actionable, Relevant, Timely
 - D. Specific, Measurable, Actionable, Relevant, Transparent

10. Business process management projects
 - A. Should not require management support
 - B. Should cover as many processes and departments as possible
 - C. Should be kept as small as possible to gain quick wins
 - D. Require constant change management

11. What is one of the primary purposes of process modelling?
 - A. Verbal description of the process features
 - B. Visual illustration of process features to ensure better communication
 - C. Presentation of a process-lifecycle
 - D. Creation of specifications for process simulation

12. What is a key objective of Process Discovery?
 - A. Transforming an existing process into an executable format
 - B. Identifying Business Stakeholders and Subject Matter Experts
 - C. Optimising a business process through simulation alternatives
 - D. Making explicit the current business performed

13. Process Models are descriptions or abstractions of the work performed. However which test should they be subject to?
 - A. A model must be complete
 - B. A model must identify all process roles and participants
 - C. A model must mean only one something
 - D. A model must be restricted to one organisation

14. Which role do business rules play in the execution of a process?
 - A. Usually they are not important in the execution of processes
 - B. They determine how activities shall be performed
 - C. They manage the interaction with the customer in automated processes
 - D. They always control only parallel processes

15. An oil Company is drilling exploratory oil wells in Namibia to replenish their reserves. Modelled in BMM, What is the role of the strategy "Drill for oil in Namibia" with respect to the Goal "Replenish reserves"?
- A. It is part of the goal
 - B. It implements the goal
 - C. It channels efforts toward the Goal
 - D. It is a component of the plan for the goal
16. Process Analysis is performed to identify process inefficiencies. Which activity is also true about Process Analysis?
- A. It is performed exclusively on an "as – is" process
 - B. It involves the process analysis experts without the participation of the process participants
 - C. It identifies the root cause of the inefficiencies
 - D. It is done following process development
17. Shilongo Company hired Adok Investments to design a new "Customer Order Taking" process. The first activity of the BPM consultant should be to
- A. Understand the objectives of the sponsor
 - B. Collect the performance data of the actual process
 - C. Ensure that IT will not influence the initiative
 - D. Build and submit a project plan.
18. Which is NOT part of the most common initiatives behind business process design projects
- A. Customer and supply chain management
 - B. Operational performance improvement
 - C. Cost reduction
 - D. None of the above
19. How could Governance be defined, in the case of a business or a non-profit organisation?
- A. Rules of law
 - B. Programs, initiatives or activities considered leading edge or exceptional models to follow
 - C. Step by step descriptions of tasks required to support and carry out organisational policies
 - D. Consistent management, cohesive policies, processes and decision- rights
20. Which statement about a sequence flow is True?
- A. It can connect Activities from two different Participants of the Process
 - B. It can have two Activities as the source and one Gateway as the target
 - C. It cannot have a compensation Intermediate Event placed on the boundary of an Activity as its source

D. It can connect a Gateway of a parent Process to a Task of an embedded Sub-process

SECTION B STRUCTURED QUESTIONS

[40 marks]

Answer all questions in this section. Marks will be deducted for unclear hand writing, bad grammar and wrong spellings

Question 1

[12 Marks]

One possible use of a process model is to prescribe how activities must/should be done, in contrast to the process itself, which is really what happens. Evaluate the THREE goals of a good business process model.

Answer

To be descriptive

- Track what actually happens during a process
- Takes the view of an external observer who looks at the way a process has been performed and determines the required improvements to make the process more permanent, efficient and effective.

To be prescriptive

- Defines the desired processes and how they should, could, might be performed
- Lays down rules, guidelines and behavioural patterns which, if followed, will lead to the desired process performance. They can range from strict enforcement to flexible guidelines.

To be explanatory

- Provide explanations about the rationale of the process
- Explore and evaluate the several possible courses of action based on rational arguments
- Establish an explicit link between processes and the requirements that the model needs to fulfil
- Pre-defines points at the which data can be extracted for reporting purposes

Question 2

[8 Marks]

Organisations are supported by a number of business process types. Name and explain the types of processes that are available.

Answer:

- CORE (4 marks)
 - Directly **linked to external customers** and their values
 - **Meet marketplace demands**

- SUPPORT (4 marks)
 - **Guide, control, plan, enable** or provide resources to the CORE and other BP

Question 3

[20 Marks]

Different process design projects will target different areas of business activity, according to organisational focus and requirements. However, most process design projects are driven by a combination of the organisational focus and the common requirements. Explain **FOUR** such requirements.

Answer

The need to increase efficiency: A poorly designed process will be inefficient, thus leading to poor communication, duplication of effort, functional errors, delays, unnecessary costs and ultimately a failure in achieving its designated purpose

The need to evaluate the business practice as part of an organisation development project:

Business process design is often required with the implementation of systems such as SAP, CRM or other large corporate systems. It could also be required for internal restructuring, mergers and acquisition.

The need to evaluate potential new business ventures (JV. Alliance) or business offerings:

The need to manage the organisations knowledge and intellectual capital can be challenging if there are no process implemented to capture new and maintain existing knowledge.

Knowledge forms the basis for the evaluation of new opportunities.

The need to manage Human Capital: Business processes form the basis of which job descriptions and resource requirements can be derived.

SECTION C LONG QUESTIONS

[40 Marks]

Question 1

[20 Marks]

The structure of organisations is usually defined as divisions, departments and sections designed towards a specific operational function such as sales or human resources. The employees in these areas are usually experts in their field and dedicated towards specific tasks related to the operational function. Explain in a well presented essay how you would design the end-to-end business processes in such an organisation to ensure that the process flow is optimal towards integrating all the stakeholders of the process.

Answer

Introduction

Business processes cut across organisational divisions. Where different activities in a process require different or specific skills, the process is likely to involve a number of people and departments/sections. For example, consider the business process “sell to customer”. Activities within this process are:

- Sales finds the customer
- Distribution takes the customer order
- Manufacturing produces the product ordered
- Finance invoices the customer

The process spans across the departments within the organisation each interacting with the process at different times. From the customer point of view it is a single process that takes place.

Why process view

A traditional organisational chart generally organises activities according to functional units. However, dividing tasks vertically according to functional divisions is not the optimal way to structure a process.

A process is a flow of activities adding value to successive stages of the process until an outcome towards satisfying the customer needs is achieved. The process flow is horizontal and crosses through various department sections subsidiaries or external suppliers, depending on the section and or requirements of that specific process.

Aligning a process along functional requirements changes the requirements from “who does what” to “what needs to be done”, thus inhibiting the process as control moves and changes along the way increasing the possibility of duplication, delay and loss of quality. The risk is amplified with a rigid structure both hierarchically and functional.

Conclusion

It is not wise to design a business process based on functional units within an organisation for reasons mentioned in the preceding paragraph.

Question 2

[20 Marks]

Define a Process and illustrate a process in each of these industries with a suitable diagram.

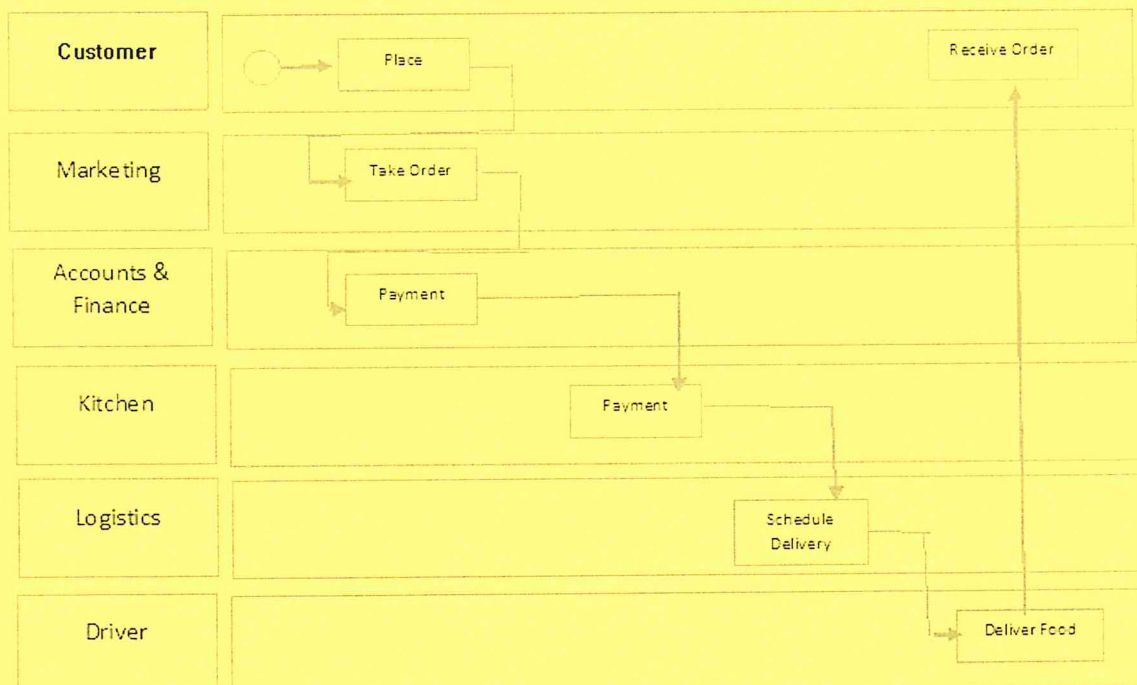
- A dental clinic
- A university
- A food wholesaler

Answer:

5 Marks for defining a process

A process is a collection of related, structured activities that produce a service or product that meets the needs of the client. The processes are critical to any organisation as they generate revenue and often represent a significant proportion of the costs.

Diagrams: 5 Marks for each diagram for each industry. For Example, in the Food Industry, the process Order Pizza, the diagram will look like the one bellow:



TOTAL MARKS 100