

PILOT PAPER – 2023-2027 SYLLABUS

ML3.3 Digital Business & Project Management

Managerial Level

Time allowed: 3 Hours.

Total Marks: 100

Exam Structure

This exam is consisting with three parts:

Part-I

- 10 Multiple Choice Questions (MCQ)
- 6 MCQs from Digital Business & 4 MCQs from Project Management
- Each 02 marks and 20 marks in total.

Part-II

- Six Case-Based Objective Test Questions.
- 03 questions from Digital Business and 03 questions from Project Management.
- 50 marks in total

Part-III

- Three Structured Questions.
- 02 questions from Digital Business and 01 question from Project Management.
- Each containing a case which relates to one or more requirement(s).
- Answers are required be provided in spreadsheet on given format.
- Each 10 marks and 30 marks in total

All questions are compulsory.

Practice Examination – Part I

Exam Structure

- 10 Multiple Choice Questions (MCQ)

Digital Business

Segment A 01 MCQ

Segment B&C 01 MCQ

Segment D 02 MCQs

Segment E 02 MCQs

Project Management

Segment A 01 MCQ

Segment B 01 MCQ

Segment C 02 MCQs

- Each 02 marks and 20 marks in total.

Digital Business

Segment A - Digital Business

1. Which of the following statement is NOT true in relation to E- Commerce:
 - a) Non-financial transactions such as customer queries would not be considered to be part of e-commerce.
 - b) E-commerce includes pre-sale and post-sale activities across the supply chain.
 - c) Key business processes of an organization are part of e-commerce.
 - d) E-commerce is a subset of digital business.

Segment B & C - Digital Business

2. Which of the following is NOT a step involved in strategy process models:
 - a) Strategy Control.
 - b) Strategy Implementation.
 - c) Strategic Objectives.
 - d) Strategy Definition.

Segment D - Digital Business

3. Which of the following can be considered as a characteristic of pull supply chain model:
- a) In pull-based model, production master schedules are based on forecasts or best guesses of demand for products.
 - b) Typical aim of pull based supply model is to optimize the production process for cost and efficiency.
 - c) In pull-based supply chain model actual customer order or purchases trigger events in the supply chain.
 - d) In pull-based supply chain model data is managed independently by the supply chain partners.
4. Which of the following CANNOT be considered under four marketing activities of Customer Relationship Management:
- a) Customer Acquisition.
 - b) Customer Retention.
 - c) Customer Extension.
 - d) Customer optimization.

Segment E - Digital Business

5. Which of the following CANNOT be considered as main phases of digital transformation compass:
- a) Focus investment.
 - b) Frame the digital challenge.
 - b) Mobilize the organization.
 - d) Craft an implementation plan.
6. _____ involves recognizing the need for change, dealing with resistance to change, and avoiding the seduction of the 'quick fix.'
- a) Envisioning.
 - b) Awakening.
 - c) Rearchitecting.
 - d) Refreezing.

Project Management

Segment A - Project Management

7. Which one of the following statements is true:
- a) An increase in project scope is likely to increase project cost.
 - b) A decrease in the project time is likely to increase project quality.
 - c) An increase in the project quality requirements is likely to decrease project cost.
 - d) A decrease in the project cost is likely to decrease project time.

Segment B - Project Management

8. Which one is a true statement related to project communications:
- a) A project sponsor is responsible for all communication methods and media.
 - b) Different stakeholders typically have different communication needs.
 - c) It is best to have a standard set of project reports used for every project.
 - d) Email is the only way to communicate with large numbers of people.

Segment C - Project Management

9. A project document that describes all the work that must be done to complete the project is known as:
- a) Work Basic Structure.
 - b) Work Break Structure.
 - c) Work Breakdown Structure.
 - d) Work Boundary Structure.
10. A Gantt chart is -----.
- a) A timeline that is used as a project management tool to illustrate how the project will run
 - b) A table that shows what each task looks like
 - c) A tree like structure that shows the breakdown of the project.
 - d) A map that shows how a project is progressed.

Practice Examination – Part II

Exam Structure

- Six Case-Based Objective Test Questions.

Digital Business

Segment A 01 Question

Segment B&C 01 Question

Segment D 01 Question

Project Management

Segment A&B 01 Question

Segment C 02 Questions

- 50 marks in total

Question 01 - Digital Business- each question 02 marks in maximum, total 08 marks - Segment A

Suppose you have been assigned to work on a strategic plan on digitalization for an apparel manufacturing company. As part of their plan to embrace the technologies of the 4th Industrial Revolution, the company intends to adopt applications from the technologies regarded as the ‘three digital pillars’ in every industry. During the first phase of the project, the company seeks advice on how to offer a better customer service across multiple platforms using digital technologies. For the second phase of the project, the company has the objectives of instilling better security, transparency and decentralizable attributes within their accounting and book keeping practices. During the third phase, the company intends to shift its entire business operation to an e-commerce platform.

1. Out of the following, select the statement/s which most accurately describe/s digitalization:
 - a) Digitalization is the translation of physical or analogue things into digital form.
 - b) Digitalization refers to the technical process of translating something into electronic formats.
 - c) Digitalization involves the reconfiguration of processes from analogue-and physical-centric forms into maximally digital-centric forms.
 - d) Digitalization requires a transformation in the organizational structure, culture and systems.

2. Out of the following options, tick the ‘three digital pillars’ referred to in the scenario above.

- a) Cryptocurrency.
- b) Internet of Things (IoT).
- c) Big Data.
- d) Robotics.
- e) Blockchain.
- f) Virtual reality.
- g) Artificial Intelligence.
- h) Cloud computing.

3. Select the most appropriate technological solution to fulfill the following business objectives specified in the above case.

Business Objectives	Solution
Establishing transparency, shareability and security within the financial processes	
Processing information pertaining to customers arising from multiple sources	

- Artificial intelligence
- Blockchain
- Big data analytics
- Cloud computing

4. Out of the following, select the incorrect statement/s regarding e-commerce.

- a) The scope of e-commerce is broader than digital business.
- b) E-commerce includes all electronically mediated transactions between an organization and any third party it deals with.
- c) Non- financial transactions such as customer support and requests for further information are not a part of e-commerce.
- d) The service perspective of e-commerce includes enabling cost cutting and increasing the speed and quality of service delivery.

Question 02 - Digital Business- each question 02 marks in maximum, total 10 marks - Segment B&C

Zesty (Pvt) Ltd. is a local tea manufacturing company which intends to establish itself as an e-commerce-based business. A part of this objective was established with the intention of expanding into overseas markets as a Sri Lankan tea exporter. Another reason why the company decided going online was since e-commerce is popularly regarded to be ‘green’ in the present context. Thus, by going digital, Zesty (Pvt) Ltd intends to aim for better business prospects while establishing themselves as a socially responsible corporate.

9. Fill in the blanks using the most appropriate terms that suit the context explained.
- i. In order to understand the internal strengths of the company, Zesty (Pvt) Ltd should identify its which means the company's resources, skills or technologies that provide a benefit to customers, and offer the company a better competitive position.
- ii. Zesty (Pvt) Ltd should also understand that each of their business objectives should have a specific to indicate and measure how they are progressing.

Core competencies

SMART objective

key performance indicator

strategic position

10. Which of the following cannot be considered as (a) key digital business strategic decision/s that Zesty (Pvt) Ltd will have to make under the 'strategy definition' phase:
- Digital business channel priorities.
 - Business and revenue models.
 - Execution of the action plans.
 - Developing action plans for achieving strategic goals.
11. Which of the following more closely indicates the new business strategy that Zesty (Pvt) Ltd has decided to implement:
- Market penetration strategy.
 - Market development strategy.
 - Diversification strategy.
 - Product development strategy.

Question 03 - Digital Business- each question 02 marks in maximum, total 10 marks - Segment D

Zigma Traders is a tyre manufacturing company. Their factories were initially located near rubber estates to conveniently fulfill the raw material requirement for production processes. All other activities of the value chain such as marketing and customer service were also conducted by the company itself. However, with the advent of digital technologies, Zigma Traders have now realized that they can conduct their business activities much more profitably and efficiently by restructuring their supply chain activities.

Accordingly, they are looking for options to electronically exchange documents such as purchase orders, invoices and goods received notes using standardized structures by arriving at a common agreement with their supply chain partners as well. The current method of document exchange suffers from extensive delays due to human errors and manual methods of data entry. Zigma Traders is further looking towards digitalizing their procurement processes, where they will be investing in new information systems to further improve the stages of their fulfillment cycle.

Zigma Traders is also keen on developing a new digital marketing strategy to reach out to their customers and prospects once these new initiatives are implemented.

12. According to the above scenario, what was the initial supply chain management strategy followed by Zigma Traders:

- a) Vertical integration.
- b) Virtual integration.
- c) Vertical disintegration.
- d) Virtual disaggregation.

13. What technological solution out of the options given below will be most suitable for Zigma Traders to fulfill their requirements in revamping the document exchange processes:

- a) Electronic Data Interchange.
- b) Email-based document exchange.
- c) Intranet-based document exchange.
- d) Digital encryption.

14. Select the most appropriate information system solution that will be helpful for efficiently completing the stages of the fulfillment cycle of Zigma Traders given below:

Stages of the fulfillment cycle	Information system solution
Originator selecting a suitable supplier	
Requesting for a new batch of rubber sheets	
Three-way matching of documents	

Order entry system

Accounting system

Web-based catalogue

15. Rank the following stages of digital marketing planning from 1 to 3 in the order in which they should be followed:

Stage	Rank Order
Developing actions	
Developing strategies	
Developing tactics	

16. Out of the following, what strategic tool/s is/are the most appropriate for conducting a situational analysis for understanding the business environment of Zigma Traders:

- a) SWOT analysis.
- b) PESTEL framework.
- c) Key performance indicators.
- d) The Marketing mix of the company.

17. Out of the given options, select the marketing strategies which Zigma Traders could follow as customer extension techniques:

- a) Reactivation.
- b) Up-sell.
- c) Sales force automation.
- d) Acquisition management.

Question 04 - Project Management - each question 02 marks in maximum, total 06 marks - Segment A&B

Health World Hospital Limited (HWHL) is one of the private hospitals operating in Sri Lanka. They provide high quality health care at affordable prices. Currently they have only one hospital in Colombo. The management of HWHL is planning to open a branch hospital including a modern laboratory in Jaffna. The management of HWHL has already bought a building in Jaffna to start the hospital.

18. Which of the following are the stakeholders of this project:

- a) The Jaffna Municipal Council.
- b) Already established private hospitals in Jaffna.
- c) Director, National Hospital of Sri Lanka, Colombo.
- d) Ministry of Health.

19. Match the type of stakeholders given in the left hand side with the actions to be done with these stakeholders given in the right hand side:

Stakeholder	Rank	Action
Power Low Interest Low		1. Understand and satisfy their needs
Power Low Interest High		2. Engage and manage actively
Power High Interest Low		3. Consider and keep informed
Power High Interest High		4. Monitor and Inform Occasionally

25. The project manager of this project frequently produces status reports for the benefit of relevant stakeholders. Select benefits of status reports from the followings:

- a) Maintain a formal record of the project's progress.
- b) Provide a clear view into the work accomplished and planned.
- c) Ensure all stakeholders are always on the same page.
- d) Ensure all stakeholders visit the project site frequently.

Question 06 - Project Management - each question 02 marks in maximum, total 08 marks - Segment C

Multi Clothing (MC) is a medium scale garment manufacturing plant located in Gampaha. Currently 100 machine operators work in this factory. MC supplies its goods such as trousers, frocks, T-shirts and school uniforms to retailers in Sri Lanka under the brand name "Multi". With the expansion of the business, the owner of the business, Ms. Gauri Shanthi, wants to computerize all business activities of MC. Currently they have only 3 old desktop computers. Ms. Shanthi wants to recruit a young graduate as the project manager for this project.

26. A Gantt Chart can be used for managing this project. Match the words related to Gantt charts given in the left hand side with the descriptions given in the right hand side:

Word(s)	Rank	Description
Milestone		1. successor activity cannot finish until a predecessor activity has started
Finish to Start		2. The amount of time that is added between a predecessor task and its successor
Start to Finish		3. Successor Activity cannot start until a Predecessor Activity has finished
Lag		4. An important time, stage or event

27. Which of the approaches given in the following dropdown menu is used when developing the Work Breakdown Structure (WBS) for this project:

- a) Bottom up
- b) Horizontal
- c) Top down
- d) Decentralized

28. The newly recruited project manager has found that it is very difficult to know the exact time needed for each activity of the project. What is the most suitable method the manager can use in scheduling the activities of this project:

- 1) Critical Path Method
- 2) Program Evaluation and Review Technique
- 3) Work Breakdown Structure
- 4) Responsibility matrix

29. State whether the below statement is true or false

Statement	True	False
The critical path in a PERT chart represents the shortest path of tasks needed for the project completion.		
Any project, activities on the critical path have zero slack time.		

True

False

Practice Examination – Part III

Exam Structure

- Three Structured Questions covering following segments.

Digital Business

Segment B&C 01 Question

Segment D 01 Question

Project Management

Segment A&B 01 Question

- Each containing a case that relates to one or more requirement(s).
- Answers are required to be provided in a spreadsheet in the given format.
- Each 10 marks and 30 marks in total.

Question 01 - Total 10 Marks - Digital Business - Segment B&C

Fairly is a leading clothing company which operates several physical outlets to sell its clothing items. Having identified the growing trend towards online channels, Fairly is planning to launch a website to establish its presence online and reach a wider customer base.

You are required to:

- Describe two types of information of the site users used by the online business which are governed by ethics and legislation.

Answer 01

Answer 02

- Identify two online revenue models available for a business to generate revenue other than selling its products online:

Answer 01

Answer 02

3. When analyzing its competitive environment, state two forces that cannot be identified as the forces determining the level of competition within the industry:

1.
2.

4. Identify two variables that a company can use to best position its online services relative to its competitors.

Answer 01

Answer 02

5. Explain two critical factors that determine the success of digital business strategy implementation.

Answer 01

Answer 02

Question 02 - Total 10 Marks - Digital Business - Segment D

AMD (Pvt) Ltd is a manufacturer and seller of Fast-Moving Consumer Goods (FMCG). In order to improve the efficiency of its existing business processes, the company is planning to introduce several digital business applications to areas such as procurement, marketing, supply chain etc. You are required to provide answers to the following questions in order to assist the company in its initiative.

6. Identify two (02) problems of traditional supply chain that can be solved using Supply Chain Management System.

Problem 01

Problem 02

7. Briefly explain two (02) barriers a company may face during e-procurement adoption.

Barrier 01

Barrier 02

8. In the current supply chain model of the company, production schedules are prepared based on forecasts and best guesses. Further, limited integration can be observed among the supply chain members. By identifying the capabilities of new technology applications, the company is planning to change its supply chain model to strengthen the integration between parties and to better capture the customer demand.

	Answer
i. Identify the supply chain model currently maintained by the company.	
ii. Identify the planned supply chain model to be used by the company in the future.	

9. Identify two (02) digital marketing techniques that can be used by AMD (Pvt) Ltd to acquire customers.

Technique 01

Technique 02

10. Briefly explain two (02) customer extension techniques that can be used by the company when it operates online.

Technique 01

Technique 02

Question 03 - Total 10 Marks - Project Management - Segment A&B

Recently the government allocated LKR 10 billion for the development of rural roads in Sri Lanka. A 3.3 km stretch of road from Katukelle to Kitulana in Kandy district has also been selected for the development. Sumanasiri, a development officer of Udapalatha Divisional Secretariat Office (DSO), has been appointed as the manager of this particular road development project. He has identified the following information regarding the project.

Activity	Immediate Predecessor	Time (Months)		
		Optimistic	Pessimistic	Most likely
A	None	6	9	12
B	A	9	12	15
C	B	12	15	30

D	A	3	6	9
E	D	3	5	7
F	C,E	9	18	27

11. Calculate the following values (in months) of the given activities:

Activity	Expected time	Earliest Starting Time	Latest Finish time	Slack
B				
E				

12. What are the activities in the critical path:

13. What is the probability of completing this project in 56 months:
