



FACULTY/COLLEGE	College of Business and Economics
SCHOOL	Johannesburg Business School
DEPARTMENT	Business Management
CAMPUS(ES)	APB
MODULE NAME	Project Management
MODULE CODE	PJM01B1
SEMESTER	Second
ASSESSMENT OPPORTUNITY, MONTH AND YEAR	Supplementary Examination January, 2020

ASSESSMENT DATE	TBA	SESSION	TBA
ASSESSOR(S)	Kwete Mwana Nyandongo		
MODERATOR(S)	Prof Travos Zuva		
DURATION	3 hours	TOTAL MARKS	100

NUMBER OF PAGES OF QUESTION PAPER (Including cover page)	10
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INFORMATION/INSTRUCTIONS:

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- This is a closed-book assessment.
 - There are 2 sections. Answer all questions (compulsory)
 - Read the questions carefully and answer only what is required.
 - Number your answers clearly and correctly as per the question paper.
 - Write neatly and legibly on both sides of the paper in the answer book, starting on the first page.
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Section: A**CASE STUDY**

The People's Group, a private organisation specialising in the management of national parks and recreation centres has identified the acquisition of a new Parks Management Systems (PMS) as one of its top priority for the month of August 2019. This project was selected by combining different project selection methods. The new system must be developed internally, and the organisation has to appoint a project manager and build a team for this project.

When it comes to the appointment of the project manager, the executive management team was divided as 50% of the executives preferred a project manager with technical skills, while the other 50% of executives preferred a project manager who is a good communicator with experience in software project development.

After days of discussion, the executive management agreed on the appointment of Mr Thomas as the project manager. As part of his responsibilities, the project manager was given various powers to influence the team members to achieve the objectives of the project. During project execution, many team members observed that the project manager reminded them constantly that he was in charge of the project and threatened to fire them if the activities allocated to them were not completed on time.

Immediately after assuming the responsibilities of project manager, Mr Thomas took a good decision to draft a project plan before officially initiating the project good or not. This decision was done to speed up the development process and use **multiple**.

One week after her appointment, the project manager with her team decided to conduct a project scoping in order to develop a preliminary project schedule. The main activities that were identified and their durations are presented in the following table.

Activity	Initial Node	Final Node	Estimated Time
A	1	2	2
B	2	3	2
C	2	4	3
D	2	5	4
E	3	6	2
F	4	6	3
G	5	7	6
H	6	8	2
I	6	7	5
J	7	8	1
K	8	9	2

Before starting the project, you decided to evaluate the financial value of the project by estimating the costs and benefits of the project with your team. The projected costs and benefits for this

project are spread over four years as follows: Estimated costs are \$200,000 in Year 0 and \$50,000 each year in Years 1, 2, 3, and 4. Estimated benefits are \$0 in Year 0 and \$600,000 each year in Years 1, 2, 3, and 4.

QUESTION 1**[12 MARKS]**

Identify 6 key stakeholders for the project and analyse their needs, expectations and priorities in order for you to be able to make informed decisions. Use a four (4)-column table to structure your answer using the following columns: Stakeholders, Description, Need and Expectations, priorities.

QUESTION 2**[17 MARKS]**

Calculate and clearly display the discount factors, NPV, ROI, and year in which payback occurs, use a discount factor of 1, 0.93, 0.86, 0.79, and 0.74 for year 0, 1, 2, 3, and 4 respectively. In addition, write a paragraph explaining whether you would recommend investing in this project, based on your financial analysis.

QUESTION 3**[15 MARKS]**

You are provided with the following information regarding the project:

- The brought forward for April is R10,000 and
- The forecast rate of invoicing (FRI) for this period of the project has been agreed at R15,000 per month.
- The associated cash flow outlined in the following figure:

Month and Week Number					April				May				June				July			
ID	Task Name	Duration	Cash Flow	Costs	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	Design	4 weeks	Same month	\$4000	4000															
2	Material	2 weeks	Same month	\$2000		2000														
3	Builders	2 weeks	Same month	\$4000			2000 2000													
4	Building Material	3 weeks	1 month credit	\$6000											6000					
5	Building Fittings	3 weeks	1 month credit	\$3000												1000			2000	
6	Builders	3 weeks	Same month	\$9000												9000				
7	Transport	1 week	1 month up-front	\$5000												5000				

Using the information above, produce a cash flow statement for the months April to July

QUESTION 4

[10 MARKS]

As the project manager, you are requested to refine the cost estimates and have been provided with the following information:

- a) PV - \$ 23.000
- b) EV - \$ 20.000
- c) AC - \$ 25,000

Assume that your initial schedule and cost goals were to complete the project in 12 months, for a budget (BAC) of \$100,000, answer the following questions:

- A. What is the cost variance, schedule variance, cost performance index (CPI), and schedule performance index (SPI) for the project?
(4)
 - B. How is the project doing? Is it ahead of schedule or behind schedule? Is it under budget or over budget?
(2)
 - C. Use the CPI to calculate the estimate at completion (EAC) for this project. Is the project performing better or worse than planned?
(2)
 - D. D. Use the schedule performance index (SPI) to estimate how long it will take to finish this project.
(2)
-

QUESTION 5

[7 MARKS]

You are tasked with managing the scope of the project in the case study and you would like to refresh your memory before you start. Discuss what is involved in project scope management, and why is good project scope management so important on projects?

QUESTION 6

[13 MARKS]

Consider data related to the activities provided in the opening case for the development of the network diagram for this project. All duration estimates or estimated times are in weeks; and the network proceeds from Node 1.

- a. Draw an AOA network diagram representing the project.
(11)
 - b. Identify the critical path for this project and how long is it?
(1)
 - c. What is the shortest possible time it will take to complete this project?
(1)
-

Section: B

MULTIPLE CHOICES

QUESTION 1

[1 MARK]

In order to be successful, the project team must be able to assess the needs of stakeholders and manage their expectations through effective communications. At the same time they must balance competing demands among project scope, schedule, budget, risk, quality, and resources, which are also known as project _____?

- a) Plan elements
- b) Deliverables
- c) Constraints
- d) Targets

QUESTION 2

[1 MARK]

Projects pass through a series of phases as they move from initiation to project closure. The names and number of these phases can vary significantly depending on the organization, the type of application, industry, or technology employed. These phases create the framework for the project, and are referred to collectively as the _____.

- a) project life cycle
- b) project management information system (PMIS)
- c) product life cycle
- d) Talent Triangle

QUESTION 3

[1 MARK]

A narrative description of products, services or results to be delivered by the project is a:

- a) Request for information
- b) Business case
- c) Project statement of work
- d) Elevator pitch

QUESTION 4

[1 MARK]

All of the following are true *except*:

- a) A portfolio may contain multiple programs and projects
- a) b) A project manager has the discretion to make trade-offs concerning which programs to pursue.
- b) A program manager has the discretion to make trade-offs concerning which projects to pursue.
- c) Projects have a finite timeline, while programs may exist as long as the parent organization does.

QUESTION 5

[1 MARK]

What project charter component documents significant points or events in the project and per the author may be developed most effectively when combined with other information such as acceptance criteria?

- a) network diagram
- b) Gantt chart
- c) stakeholder management strategy
- d) summary milestone schedule

QUESTION 6

[1 MARK]

Adding to the project after it has already begun without adjusting time, cost, or resources, is known as:

- a) scope creep
- b) risk
- c) milestones
- d) acceptance criteria

QUESTION 7

[1 MARK]

Characteristics of an organizational culture can have a major impact on a project's success. All of these are attributes of an organizational culture **EXCEPT**:

- a) Motivation and reward systems
- b) Risk tolerance
- c) Code of conduct
- d) Financial control procedures

QUESTION 8

[1 MARK]

_____ organization structures can be classified as weak, balanced, or strong depending on the relative level of influence between the functional manager and the project manager:

- a) Silo
- b) Matrix
- c) Composite
- d) Projectized

QUESTION 9

[1 MARK]

A document used to manage points of discussion or dispute that arise during projects, in order to monitor them and ensure that they are resolved and add them to lessons learned, is called a(n) _____:

- a) Risk register
- b) Stakeholder register
- c) SWOT analysis
- d) Issue log

QUESTION 10

[1 MARK]

Which of these is *not* a challenge of working on global and virtual teams?

- a) competencies
- b) language
- c) time zones
- d) culture

QUESTION 11

[1 MARK]

A common method of prioritizing stakeholders is based on the stakeholders':

- a) legitimacy
- b) power
- c) urgency
- d) all of the above

QUESTION 12

[1 MARK]

The components of a project communications' management plan should typically include the purpose of the communication, structure (format, content etc.), methods or technologies to be used, and _____:

- a) work performance data
- b) time frame and frequency
- c) stakeholder priorities
- d) lessons learned

QUESTION 13

[1 MARK]

Which of the following statements about a work package is true?

- a) It requires the work of the entire project team.
- b) It is the responsibility of the project manager.
- c) It is the lowest level of the WBS.
- d) It consists of a single activity.

QUESTION 14

[1 MARK]

During WBS creation on a large, complex project, the product and project deliverables are broken down into progressively lower levels of detail. Once the WBS has been defined at the second or third level of detail, whose input is essential in order to break down the work further?

- a) sponsor
- b) subject matter experts
- c) internal stakeholders
- d) external stakeholders

QUESTION 15

[1 MARK]

Another term for “activity on node,” the most commonly used technique for constructing a schedule model is:

- a) precedence diagramming method (PDM)
- b) arrow diagramming method (ADM)
- c) activity on arrow (AOA)
- d) activity attribute method (AAM)

QUESTION 16

[1 MARK]

You are planning the schedule and come to an activity you are unfamiliar with. Your SMEs give you the following time estimates: most likely = 5 hours; optimistic = 2 hours; pessimistic = 14 hours. Using PERT, which activity duration do you use in your plan?

- a) 6 hours
- b) 2 hours
- c) 5 hours
- d) 10 hours

QUESTION 17

[1 MARK]

The “process of identifying and documenting project roles, responsibilities, required skills, reporting relationships, and creating a staffing management plan” is called:

- a) Identify Stakeholders
- b) Create Stakeholder Management Strategy
- c) Plan Resource Management
- d) Acquire Project Team

QUESTION 18

[1 MARK]

After creating a Staffing Management Plan, the project manager and team might create a chart that provides a visual representation of project resource needs by type of resource and time period (weeks, months etc.) This chart is called a(n) _____.

- a) project Gantt chart
- b) resource histogram
- c) network diagram
- d) organization chart

QUESTION 19

[1 MARK]

One of the principle benefits of creating a bottom-up estimate during planning is that the estimate:

- a) Can be created quickly
- b) Is very accurate
- c) Matches the high level estimate in the project charter
- d) Will not change once the project is in flight.

QUESTION 20

[1 MARK]

The amount of project budget reserved for unforeseen project work that addresses the “unknown unknowns” that can affect a project is the _____.

- a) Project buffer
- b) Funding limit
- c) Contingency reserve
- d) Management reserve

QUESTION 21

[1 MARK]

The Risk Management Plan describes the methodology, roles and responsibilities, budgeting, timing, and risk categories for potential causes of risk. These risk categories can be structured into a hierarchical representation called a(n):

- a) Organizational Breakdown Structure (OBS)
- b) Risk Breakdown Structure (RBS)
- c) Work Breakdown Structure (WBS)
- d) Threats Breakdown Structure (TBS)

QUESTION 22

[1 MARK]

Risks that have been identified and may or may not happen are referred to as known unknowns, and a _____ should be established to cover them if they are triggered.

- a) Contingency reserve
- b) Management reserve
- c) Funding reserve
- d) Risk buffer

QUESTION 23

[1 MARK]

What cycle is the basis for Six Sigma quality planning and improvement?

- a) DMAIC
- b) PDCA
- c) DOE
- d) TQM

QUESTION 24

[1 MARK]

All of these are components of a work flow diagram called the SIPOC model **EXCEPT**

- a) Customer
- b) Process
- c) Input
- d) Support

QUESTION 25

[1 MARK]

What is a hybrid type of contract that is often used for staff augmentation or any outside support in which a precise statement of work cannot be defined, and which often includes a not-to-exceed value and time limit to prevent unlimited cost growth?

- a) Time and material
- b) Cost reimbursable
- c) Fixed Price
- d) Incentive fee

QUESTION 26

[1 MARK]

The type of procurement document that might be used to request prices for standard products or services is called a(n) _____:

- a) Request for Proposal (RFP)
- b) Request for Information (RFI)
- c) Invitation for Negotiation (IFN)
- d) Request for Quotation (RFQ)