



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF MANAGEMENT SCIENCES

DEPARTMENT OF MANAGEMENT

| | |
|---|---|
| QUALIFICATION: BACHELOR OF BUSINESS MANAGEMENT (HONOURS) | |
| QUALIFICATION CODE: 08BBMH | LEVEL: 8 |
| COURSE CODE: APM811S | COURSE NAME: ADVANCED PROJECT MANAGEMENT |
| SESSION: JUNE 2019 | PAPER: THEORY |
| DURATION: 3 HOURS | MARKS: 100 |

| | |
|---|---------------|
| FIRST OPPORTUNITY EXAMINATION QUESTION PAPER | |
| EXAMINER(S) | J. V. OLU OJO |
| MODERATOR: | RAINER RITTER |

| |
|--|
| INSTRUCTIONS |
| <ol style="list-style-type: none">1. Answer ALL the questions.2. Write clearly and neatly.3. Number the answers clearly. |

PERMISSIBLE MATERIALS

1. Calculators. Use of Cell Phones for calculations or any other purpose is not permitted.
- 2.
- 3.

THIS QUESTION PAPER CONSISTS OF 8 PAGES (Including this front page)

SECTION A – Multiple Choice Questions (20 Marks)

1. One of the following is an anomaly among the characteristics of organizational strategy for effective project management. Which one?
 - a. Strategy determines how an organization will compete
 - b. Strategy is implemented through projects
 - c. Only top management must understand strategy
 - d. Project selection should be clearly aligned with strategy
 - e. Project management plays a key role in supporting strategy

2. The project life cycle can be used as a tool to.....
 - a. Help identify tasks
 - b. Break the project into manageable parts
 - c. Recycle the project
 - d. a + b
 - e. a + b + c

3. How projects should be delivered to meet strategic objective is:
 - a. Issues Management
 - b. Improvement of relationships and teamwork
 - c. Performance Management
 - d. Strategic Management
 - e. None of the above

4. Work Breakdown Structure does not help to do one of the following:
 - a. indicate how schedules and costs will be managed
 - b. give visibility to important or risky work efforts
 - c. allow mapping of requirements and deliverables
 - d. foster ownership
 - e. produce key performance indices

5. Gantt Charts will usually show:
 - a. Activities or tasks to be performed; duration of task and project completion
 - b. Bar charts of project risks
 - c. Charts of tasks on critical path
 - d. a + c
 - e. None of the above

6. Shikongo, Mbapewa and Diegaart are working on a project involving the upgrading of a management information system. The project is being managed by the information systems department with the coordination of other departments occurring through normal channels. They are working in a _____ organization.
 - a. Functional
 - b. Balanced matrix
 - c. Weak matrix
 - d. Strong matrix
 - e. Projectized

7. Which of the following is NOT considered to be a characteristic of a project?
- An established objective
 - A clear beginning and end
 - Specific time, cost and performance requirements
 - For internal use only
 - Something never been done before
8. The definition of Project Management is.....
- Application of Authority
 - Achievement of Top Management Objectives
 - Reduction of employee workload
 - Application of knowledge, skills, tools and techniques in order to meet or exceed stakeholder's expectations from a project
 - All of the above
9. Which of the following is NOT true regarding scope creep?
- It is when the cost of the project is more than expected
 - It is the tendency for the project scope to expand over time
 - It most likely caused by a scope statement that is too broad
 - It can have both positive and negative impacts on a project
 - It can lead to added costs and possible project delays
10. In reviewing the project plan, Susan sees that the first prototype must be completed by October 12. This would be best classified as a
- Project target
 - Limit item
 - Milestone
 - Project objective
 - Critical goal
11. Which of the following does NOT help describe a bottom-up estimating approach?
- They are made by someone who uses experience and/or information from someone else to determine overall project cost and duration
 - They establish low-cost, efficient methods for completing activities
 - They typically come from the people actually doing the work and who are most knowledgeable about the task at hand
 - Estimates are made at the work package level and then "rolled up" to determine estimates for major deliverables and for the project itself
 - They can take place after the project has been planned in detail
12. Which of the following top-down methods is used when projects closely follow past projects in regard to features and costs of those features, and result in costs being assigned by percentages to major segments of the project?
- Apportion
 - Function point
 - Phase Estimating
 - Learning curve
 - Consensus

13. Which of the following is NOT one of the requirements for successful implementation of strategies through projects?
- Prioritizing of projects
 - Allocation of resources
 - Motivation of project contributors
 - Adequate planning and control systems
 - Quality management
14. At the end of a project, the earliest finish time is equal to.....
- Earliest start
 - Latest start
 - Latest finish
 - Earliest start + Latest finish
 - All of the above
15. The Critical Path shows the.....
- Critical employees required for the project
 - Tasks that are critical for the project
 - Tasks that have no slack time
 - b + c
 - a + b + c
16. Project Management is dependent on three variables.....
- Cost, Time, Quality
 - Cost, Resources, Planning
 - Strategy, Scheduling, Scorecard
 - None of the above
 - All of the above
17. One of the following is not required for integration into Project.....
- The project must be integrated with the ongoing operations of the performing organization
 - Product scope and project scope must be integrated
 - Deliverables from different functional specialties must be integrated
 - Project risks and size of project team
 - None of the above
18. The output from project initiation is:
- the project charters
 - the product description
 - list of assumptions and constraints
 - the appointment of a project manager
 - All of the above

19. The work of a project must be integrated with the ongoing operations of an organization.

- a. True
- b. False
- c. Irrelevant
- d. Teamwork
- e. All of the above

20. Which of the following statements is true about risks?

- a. When evaluating risks, their impact should be considered, however probability of occurrence is not important.
- b. Risks if they happen always have negative impact and not positive.
- c. Risk register documents all risks in detail.
- d. Risk Response Plan is another name for Risk Management Plan
- e. None of the above.

Sub-Total: 20 Marks

Section B – Essay Type Questions (80 Marks)

Question 1

As the project manager of the organization and you are tasked with the responsibility of selecting a project from three proposals X, Y and Z based on the business values with the information on hand:

- a. The organization considers only projects with payback of three years and less.
- b. Rate of returns not less 15%

The initial investments in the three projects X, Y and Z are N\$800,000, N\$500,000 and N\$400,000 and the annual savings are N\$200,000, N\$270,000 and N\$100,000 respectively. Using Payback, Net Present Value Methods and the table below, recommend one of the three projects for execution and give reason for your recommendation.

20 marks

| | 4% | 5% | 6% | 7% | 8% | 9% | 10% | 11% | 12% | 13% | 14% | 15% | 16% | 17% | 18% | 19% | 20% | 21% | 22% | 23% | 24% | 25% |
|----|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 0.962 | 0.952 | 0.943 | 0.935 | 0.926 | 0.917 | 0.909 | 0.901 | 0.893 | 0.885 | 0.877 | 0.870 | 0.862 | 0.855 | 0.847 | 0.840 | 0.833 | 0.826 | 0.820 | 0.813 | 0.806 | 0.800 |
| 2 | 1.866 | 1.859 | 1.853 | 1.808 | 1.783 | 1.759 | 1.736 | 1.713 | 1.690 | 1.668 | 1.647 | 1.626 | 1.605 | 1.585 | 1.566 | 1.547 | 1.528 | 1.509 | 1.492 | 1.474 | 1.457 | 1.440 |
| 3 | 2.775 | 2.726 | 2.673 | 2.624 | 2.577 | 2.531 | 2.487 | 2.444 | 2.402 | 2.351 | 2.322 | 2.283 | 2.245 | 2.210 | 2.174 | 2.140 | 2.106 | 2.074 | 2.042 | 2.011 | 1.981 | 1.952 |
| 4 | 3.690 | 3.546 | 3.465 | 3.387 | 3.312 | 3.240 | 3.170 | 3.102 | 3.037 | 2.974 | 2.914 | 2.855 | 2.798 | 2.743 | 2.690 | 2.639 | 2.269 | 2.540 | 2.494 | 2.448 | 2.404 | 2.362 |
| 5 | 4.452 | 4.329 | 4.212 | 4.100 | 3.993 | 3.890 | 3.791 | 3.695 | 3.605 | 3.517 | 3.433 | 3.352 | 3.274 | 3.199 | 3.127 | 3.056 | 2.991 | 2.926 | 2.864 | 2.803 | 2.745 | 2.689 |
| 6 | 5.242 | 5.076 | 4.917 | 4.767 | 4.623 | 4.485 | 4.355 | 4.231 | 4.111 | 3.996 | 3.889 | 3.784 | 3.685 | 3.589 | 3.496 | 3.410 | 3.328 | 3.245 | 3.167 | 3.092 | 3.020 | 2.951 |
| 7 | 5.002 | 5.786 | 5.582 | 5.389 | 5.206 | 5.033 | 4.868 | 4.712 | 4.564 | 4.423 | 4.286 | 4.160 | 4.039 | 3.922 | 3.812 | 3.706 | 3.605 | 3.506 | 3.416 | 3.327 | 3.242 | 3.161 |
| 8 | 5.733 | 6.463 | 6.210 | 5.971 | 5.747 | 5.535 | 5.335 | 5.145 | 4.958 | 4.799 | 4.639 | 4.487 | 4.344 | 4.207 | 4.076 | 3.954 | 3.837 | 3.726 | 3.619 | 3.518 | 3.421 | 3.329 |
| 9 | 7.435 | 7.106 | 6.802 | 6.515 | 6.247 | 5.995 | 5.759 | 5.537 | 5.328 | 5.132 | 4.946 | 4.772 | 4.607 | 4.451 | 4.303 | 4.163 | 4.031 | 3.905 | 3.786 | 3.673 | 3.566 | 3.463 |
| 10 | 8.111 | 7.722 | 7.360 | 7.024 | 6.710 | 6.418 | 6.145 | 5.889 | 5.650 | 5.426 | 5.216 | 5.019 | 4.833 | 4.659 | 4.494 | 4.339 | 4.192 | 4.054 | 3.923 | 3.799 | 3.682 | 3.571 |
| 11 | 8.760 | 8.306 | 7.887 | 7.499 | 7.139 | 6.805 | 6.495 | 6.207 | 5.938 | 5.687 | 5.453 | 5.234 | 5.029 | 4.836 | 4.656 | 4.486 | 4.327 | 4.177 | 4.035 | 3.902 | 3.776 | 3.655 |
| 12 | 9.385 | 8.863 | 8.384 | 7.943 | 7.536 | 7.161 | 6.814 | 6.492 | 6.194 | 5.918 | 5.660 | 5.421 | 5.197 | 4.988 | 4.793 | 4.611 | 4.439 | 4.278 | 4.127 | 3.985 | 3.851 | 3.725 |
| 13 | 9.986 | 9.394 | 8.853 | 8.358 | 7.904 | 7.487 | 7.103 | 6.750 | 6.424 | 6.122 | 5.842 | 5.583 | 5.342 | 5.118 | 4.910 | 4.715 | 4.533 | 4.362 | 4.203 | 4.053 | 3.912 | 3.780 |
| 14 | 10.563 | 9.899 | 9.295 | 8.745 | 8.244 | 7.785 | 7.367 | 6.982 | 6.626 | 6.302 | 6.002 | 5.724 | 5.463 | 5.229 | 5.006 | 4.802 | 4.611 | 4.432 | 4.265 | 4.108 | 3.962 | 3.824 |
| 15 | 11.116 | 10.380 | 9.712 | 9.108 | 8.559 | 8.061 | 7.606 | 7.191 | 6.811 | 6.462 | 6.142 | 5.847 | 5.575 | 5.324 | 5.092 | 4.876 | 4.675 | 4.489 | 4.315 | 4.159 | 4.001 | 3.859 |
| 16 | 11.652 | 10.838 | 10.106 | 9.447 | 8.851 | 8.313 | 7.824 | 7.379 | 6.974 | 6.604 | 6.265 | 5.954 | 5.668 | 5.405 | 5.162 | 4.936 | 4.730 | 4.536 | 4.357 | 4.189 | 4.033 | 3.887 |
| 17 | 12.166 | 11.274 | 10.477 | 9.763 | 9.122 | 8.544 | 8.022 | 7.549 | 7.120 | 6.729 | 6.373 | 6.047 | 5.749 | 5.475 | 5.222 | 4.990 | 4.775 | 4.576 | 4.391 | 4.219 | 4.059 | 3.910 |
| 18 | 12.659 | 11.690 | 10.828 | 10.059 | 9.372 | 8.755 | 8.201 | 7.702 | 7.250 | 6.840 | 6.467 | 6.123 | 5.818 | 5.534 | 5.273 | 5.033 | 4.812 | 4.608 | 4.419 | 4.243 | 4.080 | 3.928 |
| 19 | 13.134 | 12.065 | 11.158 | 10.336 | 9.604 | 8.950 | 8.365 | 7.839 | 7.356 | 6.936 | 6.550 | 6.198 | 5.877 | 5.584 | 5.316 | 5.070 | 4.843 | 4.635 | 4.442 | 4.263 | 4.097 | 3.942 |
| 20 | 13.590 | 12.462 | 11.470 | 10.594 | 9.818 | 9.129 | 8.514 | 7.963 | 7.459 | 7.025 | 6.623 | 6.259 | 5.929 | 5.628 | 5.353 | 5.101 | 4.870 | 4.657 | 4.460 | 4.279 | 4.110 | 3.954 |
| 21 | 14.029 | 12.821 | 11.764 | 10.836 | 10.017 | 9.292 | 8.649 | 8.075 | 7.562 | 7.102 | 6.687 | 6.312 | 5.973 | 5.665 | 5.384 | 5.127 | 4.891 | 4.675 | 4.476 | 4.292 | 4.121 | 3.963 |
| 22 | 14.451 | 13.163 | 12.042 | 11.051 | 10.201 | 9.442 | 8.772 | 8.175 | 7.645 | 7.170 | 6.743 | 6.359 | 6.011 | 5.695 | 5.410 | 5.149 | 4.903 | 4.690 | 4.488 | 4.302 | 4.130 | 3.970 |
| 23 | 14.857 | 13.489 | 12.303 | 11.272 | 10.371 | 9.560 | 8.863 | 8.265 | 7.718 | 7.230 | 6.792 | 6.399 | 6.044 | 5.723 | 5.432 | 5.167 | 4.925 | 4.703 | 4.499 | 4.311 | 4.137 | 3.976 |
| 24 | 15.247 | 13.799 | 12.505 | 11.459 | 10.529 | 9.707 | 8.965 | 8.348 | 7.784 | 7.283 | 6.835 | 6.434 | 6.073 | 5.746 | 5.451 | 5.182 | 4.937 | 4.713 | 4.507 | 4.318 | 4.143 | 3.981 |
| 25 | 15.622 | 14.094 | 12.783 | 11.654 | 10.675 | 9.823 | 9.077 | 8.422 | 7.843 | 7.330 | 6.873 | 6.464 | 6.097 | 5.766 | 5.467 | 5.195 | 4.948 | 4.721 | 4.514 | 4.323 | 4.147 | 3.985 |
| 26 | 15.983 | 14.375 | 13.003 | 11.826 | 10.810 | 9.929 | 9.161 | 8.483 | 7.896 | 7.372 | 6.906 | 6.491 | 6.118 | 5.783 | 5.480 | 5.206 | 4.955 | 4.728 | 4.520 | 4.328 | 4.151 | 3.988 |
| 27 | 16.330 | 14.643 | 13.211 | 11.937 | 10.935 | 10.027 | 9.237 | 8.543 | 7.943 | 7.409 | 6.935 | 6.514 | 6.135 | 5.798 | 5.492 | 5.215 | 4.964 | 4.734 | 4.524 | 4.332 | 4.154 | 3.990 |
| 28 | 16.663 | 14.893 | 13.406 | 12.137 | 11.051 | 10.116 | 9.307 | 8.602 | 7.984 | 7.441 | 6.951 | 6.534 | 6.152 | 5.810 | 5.502 | 5.223 | 4.970 | 4.739 | 4.528 | 4.335 | 4.157 | 3.992 |
| 29 | 16.984 | 15.141 | 13.591 | 12.278 | 11.153 | 10.198 | 9.370 | 8.650 | 8.022 | 7.470 | 6.933 | 6.551 | 6.165 | 5.820 | 5.510 | 5.229 | 4.975 | 4.743 | 4.531 | 4.337 | 4.159 | 3.994 |
| 30 | 17.292 | 15.372 | 13.765 | 12.409 | 11.253 | 10.274 | 9.427 | 8.694 | 8.055 | 7.495 | 7.003 | 6.565 | 6.177 | 5.829 | 5.517 | 5.235 | 4.979 | 4.746 | 4.534 | 4.339 | 4.160 | 3.995 |

Question 2

SHIKONGO BUILDING CONSTRUCTION COMPANY

A schedule was developed for a project to do some installations in a factory building. The project is a rush job and the contractor has agreed to schedule the work on a single shift basis but will work seven days per week until the job is done. The project is to begin on May 1

| Activity | Description | Immediate Predecessors |
|----------|----------------------------------|------------------------|
| A | Building of Internal components | - |
| B | Modify roof and floor | A |
| C | Construct Collection stack | A |
| D | Pour concrete and install Frame | B |
| E | Build high-temperature burner | B |
| F | Install Pollution control system | D |
| G | Install air pollution device | E |
| H | Inspect and Test | F, G |

- a. Use the above activities to develop an AON network diagram
- b. With the following activity durations:
 - i. A = 2wk
 - ii. B = 5wks
 - iii. C = 5wks
 - iv. D = 3wks
 - v. E = 7wks
 - vi. F = 5wks
 - vii. G = 5wks
 - viii. H = 6wks

Calculate the Earliest Start (ES), Latest Start (LS), Earliest Finish (EF) and Latest Finish (LF) and insert in your network diagram.

- c. Compute the slack or free time for all activities
- d. Illustrate the critical path for the activities.
- e. What date of the month can the project be completed at the earliest?
- f. What date of the month can the project be completed at the latest?
- g. Which date and month will be the earliest start for activity D?
- h. Which date and month will be the earliest finish for activity D?
- i. Which date and month will be the latest start for activity G?
- j. Which date and month will be the latest finish for activity G?

30 marks

Question 3

Discuss the various types of methods for estimation of project cost and time. What are the conditions that dictate the preference for each of the methods.?

20 marks

Question 4

You are planning a new project that includes 5 team members and 5 activities. These 5 team members are the project manager, assistant, consultant, engineer and legal adviser, while the 5 activities are named as an activity A, activity B, activity C, activity D and activity E. The

project manager is responsible for the activity A and a consultant needs to approve this activity A. The project manager needs to approve the activity B; assistant is responsible for the activity B, while an engineer is supporting the activity B and a legal adviser needs to be only consulted about this. Later, the project manager is responsible and needs to approve the activity C, a consultant and a legal adviser need to be informed about this activity. Additionally, the project manager is responsible for the activity D and a legal adviser must be consulted about this activity. In the end, the project manager needs to approve the activity E, assistant is responsible and an engineer is supporting this activity.

Requirement:

You are requested to create a RASIC matrix that includes all 5 team members, their activities and accountability as stated in the Case Study. RASIC stands for responsible, approving, supporting, informed and consulted.

10 marks

Sub Total – 80 marks

Grand Total – 100 marks