



**UNIVERSITY OF SWAZILAND**

**Department of Agricultural Economics & Management**

**SUPPLEMENTARY EXAMINATION PAPER**

**PROGRAMME:** BSc. in Agric. Economics and Agribusiness Management Year 4  
BSc. in Agronomy Year 4  
BSc. in Agricultural Bio-systems Engineering Year 4  
BSc. in Agricultural Extension & Education Year 4  
BSc. in Horticulture Year 4

**COURSE CODE:** AEM 404

**TITLE OF PAPER:** PROJECT PLANNING & MANAGEMENT

**TIME ALLOWED:** TWO (2) HOURS

**INSTRUCTION:** 1. ANSWER ALL QUESTIONS  
2. DO NOT WRITE ON THIS QUESTION PAPER  
3. ALL ANSWERS SHOULD BE WRITTEN IN THE BOOKLET PROVIDED

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE CHIEF INVIGILATOR**

**QUESTION ONE**

1. Below are multiple choice questions and pick the most appropriate answer. Each question carries 2 marks.

1.1. Identify a false statement among the following

- A. The roots of the tree-represent the effects of the main problem
- B. The tree trunk -represents the main problem
- C. Each cause of the problem is also a problem in its own right
- D. Prioritize the causes of the problem as the first step towards effective sustainable solutions

1.2. The basic steps that should be followed in developing the cause-effect analysis leading to the identification of focal problems and their solutions through the problem tree, except

- A. For each problem carryout the needs analysis
- B. For each specific main problem selected develop a problem tree
- C. Identify, define and select specific main problems
- D. Based on the analysis carried out define the communication objectives

1.3. Which of the following is the best flow of a problem tree?

- A. High prices of produce → Low output → limited extension services
- B. Low output → Limited extension services → High prices of produce
- C. Limited extension services → Low output → High prices of produce
- D. None of the above

1.4. The most appropriate project management definition is?

- A. Determination of the main objective and forming a clear understanding about the necessity and suitability of the project
- B. The application of knowledge, skills, tools and techniques to activities of the project for achievement the project objectives
- C. A management environment that is created for the purpose of delivering one or more business products according to a specified business case
- D. The planning, directing, coordinating and controlling of all project resources from inception to completion to achieve project objectives

1.5. Which one of the following is not considered in resource management?

- A. Identifying resources
- B. Assigning resources to activities
- C. Influencing resources
- D. none of the above

1.6. The key parameters used in project management include

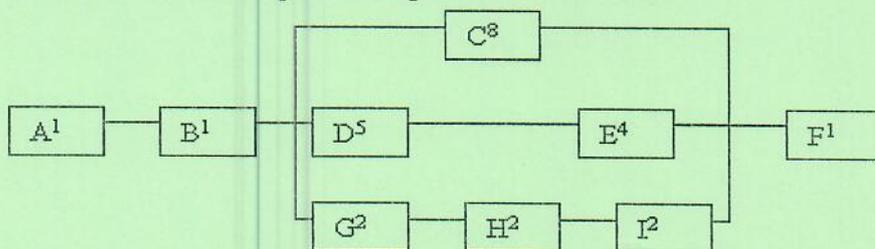
- A. Cost, time and resources
- B. Quality, time and costs
- C. Time, quality and risks
- D. Quality, resources and costs

- 1.7. There are four main sets of structures that are considered in relation to project management:
- A. Knowledge areas, milestones, activity, process groups
  - B. Knowledge areas, Artefacts, Activities, Process groups
  - C. Knowledge areas, planning process, execution process, closing processes
  - D. Artefacts, Activities, knowledge areas, risk analysis
- 1.8. Which of the project management structures can be described by this statement “all activities are initiated, planned, executed, controlled and closed?”
- A. All the above
  - B. Activities and milestones
  - C. Artefacts and project material
  - D. Process groups
- 1.9. Listed below are the project management activities except
- A. Acquiring and allocation of human and other resources
  - B. Solving problems/conflicts both inside/out of the project team
  - C. Assessing and controlling risk
  - D. Strict management of the project to ensure all objectives are achieved
  - E. None of the above
- 1.10. There are four criteria for initiating a project and these include:
- A. Need, budget, resources, time
  - B. Authority, need, budget, resources
  - C. Authority, need, budget, cycle
  - D. Organizing, planning, directing and control
- 1.11. Which one of the following statements best describes the use of an issue log?
- A. A summary of all the project issues, their analysis and status.
  - B. A tool to ensure that a process is in place for capturing all issues.
  - C. A summary of all possible alternative resolutions of an issue.
  - D. A tool to ensure that the issue management process is adhered to.
- 1.12. The planning and scheduling techniques include the follow, excluding
- A. Critical path management
  - B. Gantt or time-line charts
  - C. Program Evaluation & Review Technique
  - D. None of the above
- 1.13. A project is typically defined in terms of scope, time, cost and which other parameter?
- A. Benefits.
  - B. Quality.
  - C. Tolerance.
  - D. Controls.

- 1.14. 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.
- 1.15. The phases of a project life cycle are:
- A. concept, definition, implementation and operations
  - B. concept, definition, development, handover and closure
  - C. initiation, definition, planning, monitoring and operations
  - D. starting, planning, control and closing
- 1.16. Which of the following investment rules does not use the time value of the money concept?
- A. The payback period
  - B. Internal rate of return
  - C. Net present value
  - D. All of the options use the time value concept
- 1.17. If the net present value of project A is E150, and of project B is E100, then the net present value of the combined project is:
- A. E150
  - B. E50
  - C. E250
  - D. None of the options
- 1.18. You have three mutually exclusive projects: A, B, and C. They have NPVs of E50, -E20 and E100, respectively. What should you do?
- A. Accept A
  - B. Accept B
  - C. Accept C
  - D. Accept A and C
- 1.19. Sibandze Farms Ltd. is considering investing in a new project. The project will need an initial investment of E1, 200,000 and will generate E600, 000 (after-tax) cash flows for three years. Calculate the NPV for the project if the cost of capital is 15%.
- A. E169, 935
  - B. E292, 110
  - C. E600, 000
  - D. E258, 460
- 1.20. What is the payback period for a project with the following cash flows: Year 0 =E5000, Year 1 =E3000, Year 2 =E4000?
- A. 1.3 year
  - B. 2.1 years
  - C. 1.5 years
  - D. None of the above

- 1.21. A project has an NPV of E28,250 when a discount rate of 10% is used and the same project has an NPV of (E23,150) when a discount rate of 20% is used, the actual internal rate of return of the project is:  
 A. 16.5%  
 B. 15.5%  
 C. 5.5%  
 D. 28.5%
- 1.22. Project Time Management includes activities below, except?  
 A. Activity Sequencing  
 B. Activity Definition  
 C. Activity Duration Estimating  
 D. None of the above
- 1.23. Project cost management includes the processes like  
 A. Resource Planning  
 B. Quality Assurance  
 C. Quality Control  
 D. Quality Planning
- 1.24. The effectiveness, efficiency, relevance form part of?  
 A. Project planning  
 B. Project evaluation  
 C. Project management  
 D. Project initiation
- 1.25. Which of these statements is an advantage of the payback period method of project appraisal?  
 A. Decision is dependent on the subjectively determined "maximum payback period"  
 B. Failure to recognize cash flows after the payback period  
 C. Viable measure of risk exposure  
 D. Fails to account for time value of money

1.26. What is the critical path through the network below?



- A. ABGHIF & ABDEF  
 B. ABCEF  
 C. ABDEF  
 D. ABCF  
 E. ABGHIF

- 1.27. Which is the first stage in the project management model?
- A. Project definition
  - B. Project control
  - C. Understanding the project environment
  - D. Project planning
- 1.28. Which of the following should be taken into account when planning a project?
- A. Social environment
  - B. Political environment
  - C. Operational environment
  - D. All of the above
- 1.29. Project monitoring and evaluation is the continuous process of collecting, processing and assessing information about the:
- A. Project implementation
  - B. Project planning
  - C. Project management
  - D. Project control
- 1.30. Arrange the following elements of the Project Cycle in the right order: A- Project Appraisal; B-Feasibility Analysis; C- Negotiation; D- Project Selection.
- A. A-B-C-D
  - B. B-A-C-D
  - C. B-A-D-C
  - D. A-B-D-C

## QUESTION TWO

Students of Agro-food related courses completed their degree program at University of Swaziland and decided to start-up a project of two years to generate incomes in the process of waiting to access jobs in the public and private sector. These students plan to plant crops for two seasons before ending the project. The farm to be established is high-tech irrigated upland rice scheme. To accomplish the project, the team has to agree on the location and type of land within 2 weeks, obtain the land within 4 weeks, select the needed upland rice variety, inputs & machinery within 2 weeks, obtain the needed upland rice variety, inputs & machinery within 5 weeks, develop the farm layout in 1 week, Organise the available resources including ploughing, establishment of the irrigation facility, planting and other activities in 4 weeks but this activity is achieved after obtaining land, and seedlings, inputs & machinery. Mid evaluation of the project will take roughly 4 weeks, the confirmation of the establishment of high-tech upland rice will take 1 week, and final report writing will take 2 weeks. The project is expected to take an early establishment of 16 weeks or latest 17 weeks. Using the provided information, generate a Work Breakdown Structure, and prepare a Gantt chart of this project.

(20 Marks)

**QUESTION THREE**

Mr. KS., Shongwe is considering investing E250, 000 in a business. The cost of capital for the investment is 13%. The following cash flows are expected from the investment: Assuming 2 discounting rates of 10% (R1) and 20% (R2) estimate, interpret the internal rate of returns (IRR) of this project.

Year	Amount (E)
0	(250000)
1	50000
2	100000
3	200000

(10 Marks)

**QUESTION FOUR**

The table below lists the cumulative values of upland rice Project, a 6 month project, with values to the end of month 10. From the table what is the Cost Performance Index (CPI), Schedule Performance Index (SPI)?

Tabulated summary for mango production Project

Month	BCWS	BCWP	ACWP	CPI	SPI
1	50	50	78		
2	150	80	156		
3	260	200	234		
4	370	300	357		
5	490	420	429		
6	590	510	507		

(10 Marks)

\*\*\*\*\*GOOD LUCK \*\*\*\*\*