



*“Investing in Africa’s future”*  
**COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES (CHANS)**

**AEC 308: PROJECT APPRAISAL**

**END OF FIRST SEMESTER FINAL EXAMINATIONS**

**NOVEMBER/DECEMBER 2019**

**LECTURER: MRS MUCHANYUKA**

**DURATION: 3 HRS**

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**INSTRUCTIONS**

Answer any **FOUR** questions

All questions carry equal marks (25).

DO NOT repeat material.

Write legibly.



### Question 1

Assume that after graduation you decided that you wanted to start a pig project, and that the following information applies:

- You need a loan of \$70 000 from the bank at the going interest rate of 12%per annum
- You are going to put up structures in the base year (Year 0) at the cost of \$20 000
- In the first year of the projects life (Year 1) you are going to buy equipment and weaners with the rest of the loan
- Sales of live animals to Colcom start in year 1 and the project lasts for 6 years before it winds up or expires
- Price of the live weight is \$1.50/kg throughout the years
- Production and operation costs and the level of production are as follows:

	Years					
Costs	Year1	Year2	Year3	Year4	Year5	Year6
Production costs	2 000	3 000	3 200	2 800	2 600	1 800
Operation costs	1 000	1 500	2 400	2 800	2 000	1 500
Production output(kgs of live weight)	2 400	28 400	22 000	2 000	1 400	1 000

- a. Using the Benefit Cost Analysis (BCA) find out if you should undertake the project. Give reasons for your answer and show all calculations (12)
- b. Discuss critically what the production and operation costs would consist of in this project (5)
- c. If due to scarcity of inputs like feeds and piglets you put the loan in your account at the bank instead of establishing the project, at interest rate 10% per annum for 6 years. Could this be a better option? Explain why. (8)

### Question 2

GG Holdings is planning to undertake a broiler project requiring initial investment of \$500 000 and is expected to generate \$72 250 in Year 1, \$180 000 in Year 2, \$140 000 in Year 3, \$300 250 in Year 4 and \$400 000 in Year 5.

Explain

- a) What the Payback period method of financial analysis of a project is (5)
- b) Its strengths and weaknesses (8)



- c) Calculate the payback period for GG Holdings and explain whether it is advisable to invest in the broiler project or not given an alternative dairy project to invest the \$500 000 with a payback period of 4 years 1 month. (12)

### Question 3

If you were employed by a commercial farmer who wanted to start vegetable production on his new land and you were asked to give him advice on whether he should establish such a project or not,

- a) Explain what steps you would take before advising the farmer to implement the project? (15)
- b) If you found the project feasible, what indicators would you consider in the technical analysis of this project? (Use any vegetable of your choice as an example) (10)

### Question 4

- a) Explain clearly how you can plan and design an agricultural project of your choice (20)
- b) What does the term Sunk Cost mean in economic terms? (3)
- c) With an example, show your understanding of a tangible benefit (2)

### Question 5

- a) Identify a problem in the economy of your country that needs to be resolved as a priority (5)
- b) Identify two projects that could solve the problem and explain how and why they can solve the problem (20)

### Question 6

- a) Why are projects designed and implemented? (12)
- b) Explain why some projects fail (8)
- c) Define intangible benefits with examples (5)