

CHUKA



UNIVERSITY

## UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF ECON  
STATISTICS, SOCIOLOGY, BACHELOR OF ARTS GENERAL (MATHS,HISTORY)  
AND BACHELOR OF ARTS (PSYCHOLOGY)**

**ECON 443: PROJECT PLANNING & EVALUATION**

**STREAMS:**

**TIME: 2 HOURS**

**DAY/DATE: TUESDAY 10/04/2018**

**2.30 P.M – 4.30 P.M**

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**INSTRUCTION:**

- **Answer question one and any other two questions**

1. (I) A project has the following activities

| Activity | Description                    | Predecessor | Time (months) |
|----------|--------------------------------|-------------|---------------|
| A        | Preparing architectural plans  | -           | 6             |
| B        | Identify potential tenants     | -           | 8             |
| C        | Develop prospect to tenants    | A           | 2             |
| D        | Select contractor              | A           | 5             |
| E        | Prepare building permits       | E           | 4             |
| F        | Perform construction           | D,F         | 19            |
| G        | Finalize contrast with tenants | B,C         | 10            |
| H        | Tenants move in                | G,H         | 2             |

**Required :**

- |       |  |          |
|-------|--|----------|
| (i)   | Draw the project network and identify the crical path. | [8marks] |
| (ii)  | How long will the project take to complete?            | [2marks] |
| (iii) | Discuss the importance of feasibility analysis.        | [5marks] |
| (iv)  | Discuss the distinction between projects and programs. | [5marks] |

(b) ABC limited company deals with transport services, in the year 2015, the procurement department realized that they needed to expand their warehouses so as to increase the capacity of the stock that can be held in their premises . However, this project of expanding the warehouses started but failure in the process. As a project manager, identify possible reasons that could have led to its failure and proposed probable solutions to these problems. [10marks]

2. (a) Discuss the non numeric project appraisal and criteria models giving examples of each. [10marks]

(b) Explain clearly the distinction between critical path method and program evaluation and review technique of project scheduling. [10marks]

3. (a) Discus the benefits of monitoring and evaluation. [6marks]

(b) XYZ company is considering a project with the activities outlined as below.

| Activity | Immediate predecessor | Pessimistic time estimate | Optimistic time estimate | Most likely time estimate |
|----------|-----------------------|---------------------------|--------------------------|---------------------------|
| A        | -                     | 12                        | 10                       | 9                         |
| B        | -                     | 10                        | 8                        | 7                         |
| C        | B                     | 6                         | 4                        | 5                         |
| D        | A,C                   | 12                        | 10                       | 11                        |
| E        | C                     | 3                         | 1                        | 2                         |
| F        | C                     | 4                         | 2                        | 3                         |
| G        | D,EF                  | 2                         | 1                        | 2                         |

(i) Using the PERT technique draw a network diagram for this project. [8marks]

(ii) Discuss the criteria for project selection method. [6marks]

4. (i) The project lifecycle comprises several stages . Discuss these stages. [12marks]

(ii) Given the following information about project A and B with initial investments of 5 million and 8 million shillings respectively.

| Year | Cash flow Project A | Discounted Cash flow (A) | Cash flow Project B | Discounted Cash flow (B) |
|------|---------------------|--------------------------|---------------------|--------------------------|
| 1    | 2                   | 1.82                     | 2                   | 1.82                     |
| 2    | 2                   | 1.65                     | 2                   | 1.65                     |
| 3    | 2                   | 1.50                     | 2                   | 1.50                     |
| 4    | 2                   | 1.37                     | 3                   | 2.05                     |
| 5    | 1                   | 0.62                     | 2                   | 1.24                     |
| 6    | 1                   | 0.56                     | 1                   | 0.56                     |

**Required:**

- (i) Using the pay back and discounted pay back methods, calculate which of the projects is selected. [4marks]
  - (ii) Discuss the advantages and disadvantages of the above two methods of project appraisal. [4marks]
5. (i) Discuss the key issues in appraising projects. [10marks]
- (ii) You are given information on project, activities and their duration, using a Gantt chart, when the project will be completed. [4marks]

| Task | Start time (weeks) | Duration (weeks) |
|------|--------------------|------------------|
| A    | 0                  | 5                |
| B    | 6                  | 3                |
| C    | 7                  | 4                |
| D    | 7                  | 9                |
| E    | 8                  | 2                |
| F    | 9                  | 8                |
| G    | 12                 | 7                |

- (iii) Discuss the advantages and disadvantages of using a Gantt chart for project planning. [6marks]