THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

CITY CAMPUS

P.O. Box 62157
00200 Nairobi - KENYA
Telephone: 891601-6
Fax: 254-20-891084
E-mail:academics@cuea.edu

MAIN EXAMINATION

AUGUST - DECEMBER 2015 TRIMESTER

FACULTY OF ARTS AND SOCIAL SCIENCES

DEPARTMENT OF DEVELOPMENT STUDIES

EVENING PROGRAMME

MPM 510: PROJECT FINANCE

Date: DECEMBER 2015	**Duration: 3 Hours**
INSTRUCTIONS: Answer ANY FOUR Questions	

Q1. The project finance model is presented in economic development circles as the panacea for Africa's underdevelopment woes.

Required:

a) Present a profile for the characteristic features of a typical project finance arrangement **(7 marks)**

b) Citing relevant literature, present arguments in support of the growth enhancing properties of the project finance model. **(8 marks)**

Q2. The Machakos County government is considering construction of a dam on River Jaribu which runs through the County. Because of budgetary constraints the River Jaribu Dam project will be developed as a public private partnership under a build operate transfer contract. The project will be developed by a private investor with private equity and debt. The investor will manage the project for 20 years and thereafter transfer the project assets to the county government. The operator is expected to recover all investment and operating costs by the end of the sixteenth year. The project will be financed with 10% equity provided by the project operator and 90% loan

provided by a consortium of banks. The economic analysis of the River Jaribu Dam project are presented in Appendix 1.
You are required to answer the following questions in the context of the viability of the River Jaribu Dam project.

a) Explain the purpose of the financial analysis in project appraisal. Discuss the financial viability of the River Jaribu Dam project. **(3 marks)**

b) Explain the purpose of an economic analysis is project appraisal. Discuss the economic viability of the River Jaribu Dam project. Further examine the adjustments made in the calculation of the economic viability of a public investment project. **(9 marks)**

c) Explain the concept of the social discount rate. Justify the social discount rate that should be used in the evaluation of the River Jaribu Dam project. **(3 marks)**

Q3. Read the TermoEmcali, Colombia case and answer the following question. The TermoEmcali, Colombia case is presented in Appendix 2.

a) Explain the essence of the power purchase agreement between TermoEmcali and Emcali. **(5 marks)**

b) Assess the demands on the project contractors under the engineering procurement, and construction contracts between TermoEmcali and Bechtel Overseas Corporation and Bechtel International Corporation. **(5 marks)**

c) Appraise the obligations on the project management company under the operations and maintenance contract between TermoEmcali and Stewart and Stevenson. **(5 marks)**

Q4. Read the TermoEmcali, Colombia case and answer the following questions. The TermoEmcali, Colombia case is presented in Appendix 2

a) The construction risk is often beyond the control of the project sponsors and managers. Explain the sources of the construction risk in a typical project. In the context of the TermoEmcali project explain the sources of the project construction risk and how it was mitigated. **(5 marks)**

b) Examine the sources of operating risk for TermoEmcali project and explain how this risk was mitigated. **(5 marks)**

c) Environmental risks are latent in all projects. In the context of the Termo Emcali project explain the key environmental risks and explain how these risks were mitigated. **(5 marks)**

Q5. The Isiolo County Government is considering the creation of a new wildlife reserve within the County to entrench Isiolo's growing recognition as the newest resort city in the country. The new wildlife reserve will provide much needed revenue to the County government, while protecting endangered widelife. Preparation of a feasibility study will cost USD 33,000. If the project is viable the Isiolo County government has two implementation options, a mass tourism option and a premium tourist option. Both options will be implemented under public private partnership agreements, for an initial term of five years. The mass tourism option will entail contracting a private sector company to manage the reserve as well as build and operate three lodges with a total bed capacity of 1,200. This option will require an investment of USD 2,466,750. The mass tourism option is expected to yield the following net benefits over its five year project lifecycle.

Expected present value of project net benefits	Probability
USD 4, 519, 989	0.2
2, 697, 327	0.5
1, 921, 257	0.3

The premium tourist clientele option will entail contracting a high end hospitality services provider like Aman Hotels, Singita Hotels One and Only Hotels, etc to manage the reserve as well as develop and manage three lodges with a total bed capacity of 100. This option will require the investment of USD 1,480,050. This option is expected to yield the following net benefits over its five year project life cycle.

Expected present value of project	Probability
USD 2, 084, 985	0.1
1, 684, 596	0.4
1, 284, 208	0.5

The Isiolo County Government has an option to abandon the project at no additional cost after the feasibility study. The decision tree model for the proposed Isiolo County national reserve is presented in Appendix 3

Q6. Dr. Aisha Safari the Cabinet Secretary for Transport and Infrastructure recently attended a project finance conference in South Africa. She took notes of interesting ideas she heard at the conference. She believes that she could use these ideas to develop Kenya's infrastructure. She took note of the following terms:

a) Project bonds
b) Design build operate maintain
c) Build lease operate transfer

Dr. Safari has requested you to prepare a report explaining the three concepts and recommend how the three public private partnership concepts may be used to develop public infrastructure in Kenya. **(15 marks)**

END