MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS

2022/2023 ACADEMIC YEAR

FOURTH YEAR *FIRST* SEMESTER

SCHOOL OF BUSINESS AND ECONOMICS

BACHELOR OF SCIENCE IN FINANCIAL ECONOMICS

COURSE CODE: ECF 4104

COURSE TITLE: CAPITAL BUDGETING

DATE: 14TH DECEMBER 2022 **TIME: 0830-1030**

INSTRUCTIONS TO CANDIDATES

Answer Question **ONE** and any other **THREE** Questions

*This paper consists of **4** printed pages. Please turn over.*

Question One

a) Highlight characteristics of a good capital budgeting decision. **(7 Marks)**

b) James Brown invested in a new business machinery costing \$500,000. The annual cash flows of the machinery are as follows: Year 1: \$100,000; Year 2: \$150,000; Year 3: \$80,000; Year 4: \$80,000; Year 5: \$90,000 and Year 6: \$85,000. Determine the viability of the project using payback period for the project. **(5 Marks)**

c) Mr. Kenneth Kuffor is faced with the challenge of selecting a project from two mutually exclusive projects that both have 4 years life span each. They both have identical outlay of \$120, 000 each at a cost of capital of 10% for project A and 15% for project B. Which of the projects should be selected using the NPV criteria, given the information below? Project A has the following cash flows; year 1: sh. 40,000; year 2: sh. 50,000; year 3: sh. 60,000 and year 4: sh. 70,000 while Project B cash flows are for; year 1: sh. 100,000; year 2: sh. 80,000; year 3: sh. 40,000 and year 4 sh. 30,000. **(7 Marks)**

d) Discuss the importance of capital rationing in capital budgeting. **(6 Marks)**

Question Two

a) Stone and Cousin are partners in a transport business. The following data relates to their company investment.

Year	Sales (sh.)	Overhead (sh.)
1	5,000	2000
2	10,000	1000
3	15,000	500

The cost of the business is estimated at sh. 28,000 and a scrap value of the equipment is sh. 2100. Using the Accounting Rate of Return (ARR) what should be the company decision if the profit rate of return expected is 10%. **(5 Marks)**

b) Given that the real rate is 8% and the expected inflation rate is 12%. Calculate the required nominal rate. **(4 Marks)**

c) Discuss THREE broad categories of events that influence investment forecasts. **(6 Marks)**

Question Three

a) Mr. Kiogora has won a lottery and is expecting to receive Ksh. 2000 at the end of each year for the next 15 years. What is the present value of Ksh. 2000 due to be received at the 11% discount rate? **(4 Marks)**

b) Maco company raises preference share capital for perpetuity of 1, 000,000 by issue of 10% preference shares of Ksh. 10 each. The company is in 30% tax bracket. Calculate the cost of preference capital when they are issued at:

i) Par **(3 Marks)**

ii) 10% discount **(4 Marks)**

iii) 10% premium **(4 Marks)**

Question Four

a) The financial manager of Enterprising ventures wishes to use the Capital Asset Pricing Model (CAPM) to determine the firm's cost of equity capital. The investment bank of the firms provides the following information regarding the same: Risk free rate is currently 6 percent; Market return is 12 percent and Firm's beta is 1.4. calculate the cost of equity. **(4 Marks)**

b) Project Spandex is expected to generate a cash flow of Ksh. 170,000. The project is risky but the management feels that it will get at least a cash flow of Ksh. 146,000. What is the certainty coefficient? **(3 Marks)**

c) Evaluate THREE drawbacks of profit maximization. **(3 Marks)**

d) Define the following terminologies as used in capital budgeting:

i) Mutually exclusive projects **(2 Marks)**

ii) Non-conventional Projects. **(3 Marks)**

Question Five

a) Dickson Limited needs Ksh. 3,000,000 for the installation of a new factory. The new factory expects to yield annual earnings before interest and tax (EBIT) of sh. 500,000. In choosing a financial plan ABC Ltd., has an objective of maximizing earnings per share (EPS). The Co. proposes to issuing ordinary shares and raising debt of sh. 300,000, sh. 1,000,000 or sh. 1,500,000. The current market price per share is sh. 250 and is expected to drop to sh. 200 if the funds can be raised at the following rates:

i) Up to sh. 300,000 at 8%

ii) Over sh. 300,000 to sh. 1,500,000 at 10%

iii) Over sh. 1,500,000 at 15%

Assuming a tax rate of 50% advise the company. **(9 Marks)**

b) Discuss THREE statistical techniques that can be used in risk analysis in capital budgeting. **(6 Marks)**