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**University Examinations 2015/2016**

THIRD YEAR, FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF COMMERCE

**BFC3381: PROJECT APPRAISAL**

**DATE: NOVEMBER 2015 TIME: 2 HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. The Human resource manager of the organization you work for feels that making investment decisions consumes a lot of time. Therefore, the organization should invest in any project that appears viable. Comment on the statement. (8 Marks)
2. Project A has the following cash flows over its useful life of 3 years. The market value (Abandonment value) has also been given.

**Year Cash Abandonment**

**flow value**

**Sh’000’ Sh’000’**

0 (5,800) 5,800

1 3, 000 4,000

2 2,875 2,900

3 2,750 0

**Required:**

Determine when to abandon the project assuming a discount rate of 10%. (10 Marks)

1. Suppose Greater State Public Service, a large public utility, paid a dividend of $4 per share last year. The stock currently sells for $60 per share. You estimate that the dividend will grow steadily at a rate of 6 percent per year into the indefinite future. What is the cost of equity capital for Greater States? (6 Marks)
2. Discuss the assumption applied by the capital asset pricing model (6 Marks)

**QUESTION TWO (20 MARKS)**

1. A firm is considering investing in two alternative project. Project A has a cost of ksh.1 million with estimated useful life of 10 years with a residual value of 400,000. Project B has a cost of ksh.1500, 000 with a useful life of 10 years with a residual value of kshs.300, 000 both projects will be depreciated on a straight line basis. Project B is expected to generate profit before depreciation, interest and taxes of kshs.400,000 each year more that project A. the corporate tax rate is 30% and the cost of capital is 12%.

**Required:**

Determine the project that should be undertaken using incremental analysis (12 Marks)

1. XYZ Ltd wants to raise new capital to finance a new project. The firm will issue 200,000 ordinary shares (Sh.10 par value) at Sh.16 with Sh.1 floatation costs per share, 75,000 12% preference shares (Sh.20 par value) at Sh.18 with sh.150,000 total floatation costs, 50,000 18% debentures (sh.100 par) at Sh.80 and raised a Sh.5,000,000 18% loan paying total floatation costs of Sh.200,000. Assume 30% corporate tax rate. The company paid 28% ordinary dividends which is expected to grow at 4% p.a.

**Required:**

1. Determine the total capital to raise net of floatation costs (4 Marks)
2. Compute the marginal most of capital (4 Marks)

**QUESTION THREE (20 MARKS)**

The Weka Company Ltd. has been considering the criteria that must be met before a capital expenditure proposal can be included in the capital expenditure programme.

The screening criteria established by management are as follows:

No project should involve a net commitment of funds for more than four years.

Accepted proposals must offer a time adjusted or discounted rate of return at least equal to the estimated cost of capital.

Present estimates are that cost of capital as 15 percent per annum after tax.

Accepted proposals should average over the life time, an unadjusted rate return on assets employed (calculated in the conventional accounting method at least equal to the average rate of return on total assets shown by the statutory financial statements included in the annual report of the company.

A proposal to purchase a new lathe machine is to be subjected to these initial screening processes. The machines will cost Sh.2, 200,000 and has an estimated useful life of five years at the end of which the disposal value will be zero.

Sales revenue to be generated by the new machine is estimated as follows:

**Year Revenue (Sh.’000’)**

1. 1,320
2. 1,440
3. 1,560
4. 1,600
5. 1,500

Additional operating costs are estimated to be Sh.700, 000 per annum. Tax rates may be assumed to be 35% payable in the year in which revenue is received. For taxation purpose the machine is to be written off as a fixed annual rate of 20% on cost.

The financial accounting statements issued by the company in recent years shows that profits after tax have averaged 18% on total assets.

**Required:**

Present a report which will indicate to management whether or not the proposal to purchase the lathe machine meets each of the selection criteria.

**QUESTION FOUR (20 MARKS)**

1. Estate Developers purchased a machined five years ago at a cost of £7,500. The machine had an expected economic life of 15 years at the time of purchase and a zero estimated salvage value at the end of 15 years. It is being depreciated on a straight line basis and currently has a book value of £5,000. The Financial Manager has conducted a feasibility study aimed at acquiring a new machine for £12,000 and is depreciated over its 10 years useful life. The new machine will expand sales from £10,000 to £11,000 per annum and will reduce labour and materials usage sufficiently to cut operating cost from £7,000 to £5,000. The salvage value of the new machine is £2,000 at the end of useful life. The current market value of the old machine is £1,000 and tax is 40%. The firms cost of capital is 10%. The financial manager wishes to make a decision on whether to replace the old machine with a new one and he seeks your held.

Note: The decision to replace takes into account the following:

1. Estimate the actual cash outlay attribute to the new machine
2. Determine the incremental cash flows.
3. Compute the NPV of incremental cash flows.
4. Add up the present value of the expected salvage value to the P.V. of the incremental cash flow.
5. Ascertain whether the NPV (net present value) is positive or whether the IRR (internal rate of return exceed the cost in which case invest if its positive. (15 Marks)
6. Discuss any Five factors that can affect the cost of acquiring capital for an organization (5Marks)

**QUESTION FIVE (20 MARKS)**

1. Wk ltd. is considering three possible capital projects for next year. Each project has a 1 year life, and project returns depend on next years state of the economy. The estimated rates of return are shown below.

**STAGE OF TE PROBABILITY RATE OF RETURN**

**ECONOMY OF OCCURRENCE A B C**

Recession 0.25 10% 9% 14%

Average 0.50 14 13 12

BOOM 0.25 16 18 10

**Required:**

1. Find each project expected rate of return and standard deviation
2. Compute the correlation coefficient between
3. A and B
4. A and C
5. B and C
6. Compute the standard deviation of the portfolio. (15 Marks)
7. Discuss three ways of classifying capital investments (5 Marks)