

# TECHNICAL UNIVERSITY OF MOMBASA <br> School of Business \& Social Studies <br> DEPARTMENT OF ACCOUNTING AND FINANCE 

UNIVERSITY EXAMINATIONS FOR DEGREE IN
MASTERS OF BUSINESS ADMINISTRATION
MASTERS OF SCIENCE IN HUMAN RESOURCES MANAGEMENT
MASTERS OF SCIENCE IN PROCUREMENT AND SUPPLY CHAIN MANAGEMENT MASTERS OF SCIENCE IN FINANCE

## BFI 5101: FINANCIAL MANAGEMENT

SPECIAL/SUPPLEMENTARY EXAMINATION
SERIES: SEPTEMBER 2018
TIME: 3 HOURS

## INSTRUCTIONS:

Answer Question ONE (Compulsory) and any other TWO questions
This paper consists of Five printed pages

## QUESTION ONE (Compulsory)

Equity Bank Ltd - Transforming lives through inclusive financial access
Access to affordable financial services is a significant challenge in Africa, where the majority of the population is excluded from the formal banking sector. In 2007, more than 70 percent of households in Kenya relied on informal sources of financing. 1 Inaccessibility to formal financial services negatively impacts livelihoods by increasing transaction costs and risks, limiting market exchanges, and reducing opportunities for households to save.
Equity Bank, through its inclusive business model, develops financial products designed to serve the continent's unbanked and underbanked populations. Its business model targets the lowincome market to achieve scale through a high volume of relatively small, low-margin transactions. This allows Equity Bank to keep costs low, while providing stable funding to customers and promoting accessibility, convenience, affordability, and efficiency of financial products and services. A large distribution network of agents and a robust information technology platform further enable the bank to access previously untapped markets. The bank's business model has been featured in case studies at leading international business schools around the world.
In July 2011, the Lukama Dairy Commercial Village partnered with Brookside Dairy and Equity Bank to develop a dairy cooperative in Kenya. The model provides smallholders with a market for their products and access to high-quality inputs financed by Equity Bank. In October 2011, Equity Bank provided a $\$ 4,000$ overdraft facility to smooth over farmer incomes following a
delayed payment schedule. As a result, average daily milk sales rose from 186 to 600 liters, translating to an increase in income of $\$ 4,500$ per month for the cooperative.
In Relation to the above Case:
a) Explain any Five sources of Business Finance
(10 marks)
b) Explain the Four Main functions of Finance in an organization
(6 Marks)
c) Describe the relationship between Risk and Expected return

## QUESTION TWO

a) Analyze and discuss the relative merits of a rights issue, a placing and an issue of bonds as ways of raising the finance for the expansion.
(10 Marks)
b) Discuss any three (3) ways of incorporating risk into the investment appraisal process.
(10 Marks)

## QUESTION THREE

Hamisi Company ltd purchased a packing machine 4 years ago at a cost of Sh. 13.5 million. The machine had a life of 9 years at the time of purchase. The company is considering replacing it with a new packing machine costing Sh. 18 million with an expected useful life of 5 years. Due to increased efficiency, the sales are expected to increase by Sh. 2,550,000 a year, the labor costs would decrease by $\mathrm{Sh} .1,260,000$ per year while the maintenance costs would increase at the following rate:

| Year | Maintenance Costs |
| :---: | :---: |
| 1 | 150,000 |
| 2 | 330,000 |
| 3 | 405,000 |
| 4 | 435,000 |
| 5 | 504,000 |

The salvage value of the new packing machine is estimated at $\mathrm{Sh} .2,070,000$. The market value of the old machine, today, is Sh. 10.5 million. It is estimated to have a zero salvage value after 5 years. The company's tax is $30 \%$. (Assume depreciation has no effect)
The company's capital structure is as shown in the following table.

## Source of Capital

| 100,000 Ordinary Shares @ 100/- | $10,000,000.00$ |
| :--- | ---: |
| $10 \%$ Loan Stock | $6,000,000.00$ |
| $8 \%$ Preference Shares | $\underline{20,000,000.00}$ |

The expected ordinary share dividend was Ksh 31.20 per share while the current market price is double the par value. The shares are expected to grow at a constant rate of 5\%

## Required

a) Compute Hamisi Company Ltd's average cost of capital
(6 Marks)
b) Hamisi Company ltd prefers NPV approach in appraising their projects. Advise Hamisi ltd on whether the new grinder should be bought.
(14 Marks)

## QUESTION FOUR

a) Mwomboko Company Ltd currently operates with terms of net 30 days. The company has sales of Sh. 12 million and its average collection period is 45 days. To stimulate demand, the company is considering the possibility of offering terms of net 60 days. If it offers these terms sales will increase by $20 \%$. After the change the average collection period is expected to increase to 75 days with no difference in payments habits between old and new customers. The company has variable costs of Sh .70 for every Sh .100 of sales. The required rate of return on receivables is $20 \%$.

## Required:

Should the company extend its credit period? (Assume a year has 360 days). (8 marks)
b) Andreas Company Ltd. currently pays a dividend of Sh. 2 per share and this dividend is expected to grow at an annual rate of $15 \%$ for the first 3 years then at a rate of $10 \%$ for the next 3 years after which it is expected to grow at a rate of $5 \%$ thereafter.
i). What value would you place on the stock if an $18 \%$ rate of return were required?
(7 marks)
ii). Would your valuation change if you expected to hold the stock for only 3 years? Explain.

## QUESTION FIVE

a) Define agency relationship from the context of a public limited company and briefly explain how this arises.
b) Highlight the various measures that would minimize agency problems between the owners and the management.
(6 marks)
c) Evaluate any three factors that may be responsible for the slow growth in the number of companies seeking listing at the Nairobi Stock Exchange or Stock Exchange in your country.

Present value interest factor of $\$ 1$ per period at $\mathrm{i} \%$ for n periods, $\operatorname{PVIF}(\mathrm{i}, \mathrm{n})$.

| Period | 1\% | 2\% | 3\% | 4\% | 5\% | 6\% | 7\% | 8\% | 9\% | 10\% | 11\% | 12\% | 13\% | 14\% | 15\% | 16\% | 17\% | 18\% | 19\% | 20\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.990 | 0.980 | 0.971 | 0.962 | 0.952 | 0.943 | 0.935 | 0.926 | 0.917 | 0.909 | 0.901 | 0.893 | 0.885 | 0.877 | 0.870 | 0.862 | 0.855 | 0.847 | 0.840 | 0.833 |
| 2 | 0.980 | 0.961 | 0.943 | 0.925 | 0.907 | 0.890 | 0.873 | 0.857 | 0.842 | 0.826 | 0.812 | 0.797 | 0.783 | 0.769 | 0.756 | 0.743 | 0.731 | 0.718 | 0.706 | 0.694 |
| 3 | 0.971 | 0.942 | 0.915 | 0.889 | 0.864 | 0.840 | 0.816 | 0.794 | 0.772 | 0.751 | 0.731 | 0.712 | 0.693 | 0.675 | 0.658 | 0.641 | 0.624 | 0.609 | 0.593 | 0.579 |
| 4 | 0.961 | 0.924 | 0.888 | 0.855 | 0.823 | 0.792 | 0.763 | 0.735 | 0.708 | 0.683 | 0.659 | 0.636 | 0.613 | 0.592 | 0.572 | 0.552 | 0.534 | 0.516 | 0.499 | 0.482 |
| 5 | 0.951 | 0.906 | 0.863 | 0.822 | 0.784 | 0.747 | 0.713 | 0.681 | 0.650 | 0.621 | 0.593 | 0.567 | 0.543 | 0.519 | 0.497 | 0.476 | 0.456 | 0.437 | 0.419 | 0.402 |
| 6 | 0.942 | 0.888 | 0.837 | 0.790 | 0.746 | 0.705 | 0.666 | 0.630 | 0.596 | 0.564 | 0.535 | 0.507 | 0.480 | 0.456 | 0.432 | 0.410 | 0.390 | 0.370 | 0.352 | 0.335 |
| 7 | 0.933 | 0.871 | 0.813 | 0.760 | 0.711 | 0.665 | 0.623 | 0.583 | 0.547 | 0.513 | 0.482 | 0.452 | 0.425 | 0.400 | 0.376 | 0.354 | 0.333 | 0.314 | 0.296 | 0.279 |
| 8 | 0.923 | 0.853 | 0.789 | 0.731 | 0.677 | 0.627 | 0.582 | 0.540 | 0.502 | 0.467 | 0.434 | 0.404 | 0.376 | 0.351 | 0.327 | 0.305 | 0.285 | 0.266 | 0.249 | 0.233 |
| 9 | 0.914 | 0.837 | 0.766 | 0.703 | 0.645 | 0.592 | 0.544 | 0.500 | 0.460 | 0.424 | 0.391 | 0.361 | 0.333 | 0.308 | 0.284 | 0.263 | 0.243 | 0.225 | 0.209 | 0.194 |
| 10 | 0.905 | 0.820 | 0.744 | 0.676 | 0.614 | 0.558 | 0.508 | 0.463 | 0.422 | 0.386 | 0.352 | 0.322 | 0.295 | 0.270 | 0.247 | 0.227 | 0.208 | 0.191 | 0.176 | 0.162 |
| 11 | 0.896 | 0.804 | 0.722 | 0.650 | 0.585 | 0.527 | 0.475 | 0.429 | 0.388 | 0.350 | 0.317 | 0.287 | 0.261 | 0.237 | 0.215 | 0.195 | 0.178 | 0.162 | 0.148 | 0.135 |
| 12 | 0.887 | 0.788 | 0.701 | 0.625 | 0.557 | 0.497 | 0.444 | 0.397 | 0.356 | 0.319 | 0.286 | 0.257 | 0.231 | 0.208 | 0.187 | 0.168 | 0.152 | 0.137 | 0.124 | 0.112 |
| 13 | 0.879 | 0.773 | 0.681 | 0.601 | 0.530 | 0.469 | 0.415 | 0.368 | 0.326 | 0.290 | 0.258 | 0.229 | 0.204 | 0.182 | 0.163 | 0.145 | 0.130 | 0.116 | 0.104 | 0.093 |
| 14 | 0.870 | 0.758 | 0.661 | 0.577 | 0.505 | 0.442 | 0.388 | 0.340 | 0.299 | 0.263 | 0.232 | 0.205 | 0.181 | 0.160 | 0.141 | 0.125 | 0.111 | 0.099 | 0.088 | 0.078 |
| 15 | 0.861 | 0.743 | 0.642 | 0.555 | 0.481 | 0.417 | 0.362 | 0.315 | 0.275 | 0.239 | 0.209 | 0.183 | 0.160 | 0.140 | 0.123 | 0.108 | 0.095 | 0.084 | 0.074 | 0.065 |
| 16 | 0.853 | 0.728 | 0.623 | 0.534 | 0.458 | 0.394 | 0.339 | 0.292 | 0.252 | 0.218 | 0.188 | 0.163 | 0.141 | 0.123 | 0.107 | 0.093 | 0.081 | 0.071 | 0.062 | 0.054 |
| 17 | 0.844 | 0.714 | 0.605 | 0.513 | 0.436 | 0.371 | 0.317 | 0.270 | 0.231 | 0.198 | 0.170 | 0.146 | 0.125 | 0.108 | 0.093 | 0.080 | 0.069 | 0.060 | 0.052 | 0.045 |
| 18 | 0.836 | 0.700 | 0.587 | 0.494 | 0.416 | 0.350 | 0.296 | 0.250 | 0.212 | 0.180 | 0.153 | 0.130 | 0.111 | 0.095 | 0.081 | 0.069 | 0.059 | 0.051 | 0.044 | 0.038 |
| 19 | 0.828 | 0.686 | 0.570 | 0.475 | 0.396 | 0.331 | 0.277 | 0.232 | 0.194 | 0.164 | 0.138 | 0.116 | 0.098 | 0.083 | 0.070 | 0.060 | 0.051 | 0.043 | 0.037 | 0.031 |
| 20 | 0.820 | 0.673 | 0.554 | 0.456 | 0.377 | 0.312 | 0.258 | 0.215 | 0.178 | 0.149 | 0.124 | 0.104 | 0.087 | 0.073 | 0.061 | 0.051 | 0.043 | 0.037 | 0.031 | 0.026 |
| 25 | 0.780 | 0.610 | 0.478 | 0.375 | 0.295 | 0.233 | 0.184 | 0.146 | 0.116 | 0.092 | 0.074 | 0.059 | 0.047 | 0.038 | 0.030 | 0.024 | 0.020 | 0.016 | 0.013 | 0.010 |
| 30 | 0.742 | 0.552 | 0.412 | 0.308 | 0.231 | 0.174 | 0.131 | 0.099 | 0.075 | 0.057 | 0.044 | 0.033 | 0.026 | 0.020 | 0.015 | 0.012 | 0.009 | 0.007 | 0.005 | 0.004 |
| 35 | 0.706 | 0.500 | 0.355 | 0.253 | 0.181 | 0.130 | 0.094 | 0.068 | 0.049 | 0.036 | 0.026 | 0.019 | 0.014 | 0.010 | 0.008 | 0.006 | 0.004 | 0.003 | 0.002 | 0.002 |
| 40 | 0.672 | 0.453 | 0.307 | 0.208 | 0.142 | 0.097 | 0.067 | 0.046 | 0.032 | 0.022 | 0.015 | 0.011 | 0.008 | 0.005 | 0.004 | 0.003 | 0.002 | 0.001 | 0.001 | 0.001 |
| 50 | 0.608 | 0.372 | 0.228 | 0.141 | 0.087 | 0.054 | 0.034 | 0.021 | 0.013 | 0.009 | 0.005 | 0.003 | 0.002 | 0.001 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 |

