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THE OPEN UNIVERSITY OF SRI LANKA
BACHELOR OF MANAGEMENT STUDIES DEGREE PROGRAMME - LEVEL 5
FINAL EXAMINATION 2015
PROJECT APPRAISAL - MCU 3204

DURATION: THREE (03) HOURS

DATE : 12.07.2015	**TIME : 1.30 pm – 4.30 pm**

Instructions: (I) Answer **Question 1 (compulsory) and any THREE (03)** from others.
(II) Use of a non-programmable calculator is allowed.
(III) A PV table is attached herewith.

1. ABC (Pvt.) Ltd. is planning to commence a new project for which they need new machinery. The machinery will be imported and has a cost of Rs. 18 Million. It will need an additional technical consultancy fee of Rs. 500,000/- for commencing operations after the installation.

   The project will end at the end of the fifth year. The machines will have a life of 5 years and, will be depreciated on straight line basis at 15% per annum to, Rs. 4 million, the salvage value at the end of the fifth year. It will result in sales revenue of Rs. 8.5 million and cash operating costs of Rs. 4.5 million for the first year. Both revenue and operating cost are estimated to be annually increased by 10% (based on the previous year values). Use of the machine will require an increase in working capital of Rs.5 million. ABC (Pvt) Ltd. expects at least 8% return on their investments.

   (i) If the management of ABC (Pvt.) Ltd. is expecting to recover their investment within 4 years, do you recommend this project? Show relevant calculations. (05 marks)

   (ii) Calculate annual Net Cash Flows of the project. (04 marks)

   (iii) Evaluate the project based on its Net Present Value (NPV). (05 marks)

   (iv) Comment on the feasibility of the project as per the Internal Rate of Return (IRR) of the project. (06 marks)

   (v) Express your opinion on the profitability of the project by calculating the followings;
   a. Accounting Rate of Return (ARR)
   b. Net Benefit Investment Ratio (NBIR) (10 marks)

   (vi) Based on the calculations made above, express your overall opinion on the acceptability of this project to ABC (Pvt.) Ltd. Are the above calculations sufficient to express your opinion? Explain. (05 marks)

   (vi) What will be the risk of making the investment decision when you consider only NPV and IRR in appraising this project? Discuss. (05 marks)

(Total 40 marks)

2. "There are characteristics common to many projects despite the fact that each individual project is a separate economic unit". Elaborate this statement using suitable examples. (20 marks)

3. "Success or failure of many commercial projects depends on the effectiveness of marketing analysis". Critically evaluate this statement highlighting the range of activities involved in marketing analysis. (20 marks)

4. (i) Why do you think that the size or scale of a project is a variable that must be given due consideration in project planning. Explain with examples.

   (ii) What are the major components of institutional analysis? Explain with examples. (20 marks)

5. (i) Why does time value of money arise? Explain. (10 marks)

   (ii) Suppose there are two alternatives to finance a power generation project planned by ABC (Pvt.) Ltd. Alternative A is to financing the total capital of Rs. 450 Mn with equity and Alternative B is to employ Rs.150 Mn equity, Rs. 100 Mn by 14% debentures and the rest by a 15% bank loan. The corporate tax rate is 30% and the owners expects 18% dividend in both alternatives. Earnings before interest and tax (EBIT) for the project is estimated as Rs.250 Mn.

   a. Calculate weighted average cost of capital (WACC) for both alternatives. (03 marks)

   b. Evaluate two alternatives and advise ABC (Pvt.) Ltd. to select the best alternative. (07 marks)

6. State whether you agree or disagree with following statements. Explain the basis for your answers.

   (i) "Technical Analysis is imperative to be considered along with the Market Analysis."

   (ii) "Working capital is not much important in setting up of a project."

   (iii) "Forecasting future demand for new products is not an easy task."

   (iv) "Unless inflation is properly addressed, the project analysis would be misleading."

   (05 marks each)

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TABLE 4 Present Value of an Ordinary Annuity of $1

$$PVA = \frac{1 - \frac{1}{(1+i)^n}}{i}$$

n/i	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%	6.0%	7.0%	8.0%	9.0%	10.0%	11.0%	12.0%	20.0%
1	0.99010	0.98522	0.98039	0.97561	0.97087	0.96618	0.96154	0.95694	0.95238	0.94787	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286	0.83333
2	1.97040	1.95588	1.94156	1.92742	1.91347	1.89969	1.88609	1.87267	1.85941	1.84632	1.83339	1.80802	1.78326	1.75911	1.73554	1.71252	1.69005	1.52778
3	2.94099	2.91220	2.88388	2.85602	2.82861	2.80164	2.77509	2.74896	2.72325	2.69793	2.67301	2.62432	2.57710	2.53129	2.48685	2.44371	2.40183	2.10648
4	3.90197	3.85438	3.80773	3.76197	3.71710	3.67308	3.62990	3.58753	3.54595	3.50515	3.46511	3.38721	3.31213	3.23972	3.16987	3.10245	3.03735	2.58873
5	4.85343	4.78264	4.71346	4.64583	4.57971	4.51505	4.45182	4.38998	4.32948	4.27028	4.21236	4.10020	3.99271	3.88965	3.79079	3.69590	3.60478	2.99061
6	5.79548	5.69719	5.60143	5.50813	5.41719	5.32855	5.24214	5.15787	5.07569	4.99553	4.91732	4.76654	4.62288	4.48592	4.35526	4.23054	4.11141	3.32551
7	6.72819	6.59821	6.47199	6.34939	6.23028	6.11454	6.00205	5.89270	5.78637	5.68297	5.58238	5.38929	5.20637	5.03295	4.86842	4.71220	4.56376	3.60459
8	7.65168	7.48593	7.32548	7.17014	7.01969	6.87396	6.73274	6.59589	6.46321	6.33457	6.20979	5.97130	5.74664	5.53482	5.33493	5.14612	4.96764	3.83716
9	8.56602	8.36052	8.16224	7.97087	7.78611	7.60769	7.43533	7.26879	7.10782	6.95220	6.80169	6.51523	6.24689	5.99525	5.75902	5.53705	5.32825	4.03097
10	9.47130	9.22218	8.98259	8.75206	8.53020	8.31661	8.11090	7.91272	7.72173	7.53763	7.36009	7.02358	6.71008	6.41766	6.14457	5.88923	5.65022	4.19247
11	10.36763	10.07112	9.78685	9.51421	9.25262	9.00155	8.76048	8.52892	8.30641	8.09254	7.88687	7.49867	7.13896	6.80519	6.49506	6.20652	5.93770	4.32706
12	11.25508	10.90751	10.57534	10.25776	9.95400	9.66333	9.38507	9.11858	8.86325	8.61852	8.38384	7.94269	7.53608	7.16073	6.81369	6.49236	6.19437	4.43922
13	12.13374	11.73153	11.34837	10.98319	10.63496	10.30274	9.98565	9.68285	9.39357	9.11708	8.85268	8.35765	7.90378	7.48690	7.10336	6.74987	6.42355	4.53268
14	13.00370	12.54338	12.10625	11.69091	11.29607	10.92052	10.56312	10.22283	9.89864	9.58965	9.29498	8.74547	8.24424	7.78615	7.36669	6.98187	6.62817	4.61057
15	13.86505	13.34323	12.84926	12.38138	11.93794	11.51741	11.11839	10.73955	10.37966	10.03758	9.71225	9.10791	8.55948	8.06069	7.60608	7.19087	6.81086	4.67547
16	14.71787	14.13126	13.57771	13.05500	12.56110	12.09412	11.65230	11.23402	10.83777	10.46216	10.10590	9.44665	8.85137	8.31256	7.82371	7.37916	6.97399	4.72956
17	15.56225	14.90765	14.29187	13.71220	13.16612	12.65132	12.16567	11.70719	11.27407	10.86461	10.47726	9.76322	9.12164	8.54363	8.02155	7.54879	7.11963	4.77463
18	16.39827	15.67256	14.99203	14.35336	13.75351	13.18968	12.65930	12.15999	11.68959	11.24607	10.82760	10.05909	9.37189	8.75563	8.20141	7.70162	7.24967	4.81219
19	17.22601	16.42617	15.67846	14.97889	14.32380	13.70984	13.13394	12.59329	12.08532	11.60765	11.15812	10.33560	9.60360	8.95011	8.36492	7.83929	7.36578	4.84350
20	18.04555	17.16864	16.35143	15.58916	14.87747	14.21240	13.59033	13.00794	12.46221	11.95038	11.46992	10.59401	9.81815	9.12855	8.51356	7.96333	7.46944	4.86958
21	18.85698	17.90014	17.01121	16.18455	15.41502	14.69797	14.02916	13.40472	12.82115	12.27524	11.76408	10.83553	10.01680	9.29224	8.64869	8.07507	7.56200	4.89132
25	22.02316	20.71961	19.52346	18.42438	17.41315	16.48151	15.62208	14.82821	14.09394	13.41393	12.78336	11.65358	10.67478	9.82258	9.07704	8.42174	7.84314	4.94759
30	25.80771	24.01584	22.39646	20.93029	19.60044	18.39205	17.29203	16.28889	15.37245	14.53375	13.76483	12.40904	11.25778	10.27365	9.42691	8.69379	8.05518	4.97894
[illegible]	32.83469	29.91585	27.35548	25.10278	23.11477	21.35507	19.79277	18.40158	17.15909	16.04612	15.04630	13.33171	11.92461	10.75736	9.77905	8.95105	8.24378	4.99660