UNIVERSITY OF COLOMBO
Faculty of Arts, Department of Economics

Postgraduate Diploma in Economic Development - 2017
PgDED 5209: Development Project Management

Time Allowed: Three (03) hours Only
Answer any four (04) questions
Tables are provided

1. "Project evaluation is a common technique that is used to appraise the projects undertaken by both private sector as well as the state sector. Financial appraisal of projects in both sectors should be given the priority before a project is undertaken"

   (a) Can you conclude that the traditional financial appraisal methods used by the private sector, such as the Pay Back method and Average Return methods provide guidelines to investment decisions?

   (08 marks)

   (b) A large corporation is considering in two mutually exclusive projects. Each require an immediate cash outlay of Rs. 100 million. Project A has life of 4 years and project B five years. Both projects will be depreciated on a straight-line basis and no salvage value. Tax rate of the firm is 50% and its required rate is 10%. Cash flows are as follows

Year	A	B
1	30	30
2	30	30
3	40	20
4	40	20
5	0	20

   (a) Calculate Pay Back and average return of each projects
   (b) Compute the Profitability Index of each project
   (c) Which investment would you recommend and why?

   (12 marks)

   (C) What are the major weaknesses of traditional methods of appraisal?

   (05 marks)

2. Homes Investments is face with two mutually exclusive investment projects. One would cost 100,000 and provide net cash benefits of 30,000 or five years. The other would cost 50,000 and would generate 16,000 for five years. Home has 10% after tax opportunity cost of funds.
   (a) Compute the NPV of each

   (06 marks)

(b) Compute profitability index of each

(06 marks)

(c) If the opportunity cost changes to 17% how would it change the results

(06 marks)

(d) How would you compare NPV with traditional evaluation techniques.

(07 marks)

3. (a) An investment has an outlay of 800 million today and inflow of 5000 million at the end of one year and 5000m at the end of two years. What is the IRR of the project?

(06 marks)

(b)   What would be the IRR if the initial outlay was 1250m

(06 marks)

(c)   Under what conditions should a firm accept flowing investments?

A   -10   +40   -40

B   -1600   +10000 -10000

C   -1600   +2000   -400

(13 marks)

4. Compute the Weighted Average Cost of capital of a firm which has following financial structure?

Source	proportion	cost
Debt	20	4%
Ordinary Shares	20	11%
Bonds	10	9%
Retained Earnings	30	10%
Pref. Shares	10	12%

(15 marks)

(c) Comment on the capital structure of this firm taking into account the different sources of funds

(10 marks)

5.

(a) What do you understand by the concept of "*Shadow Price*" in the context of economic analysis of development projects

(04 Marks)

(b) '*Many factors are distorting the market forces and contributing for existence of imperfect market for goods as well as factors (resources)*'. Explain briefly, key factors, which are causing market failure?

(05 Marks)

(c) Identify key difference between 'Domestic Price Approach' and 'Border Price Approach' which are applied to estimate Shadow Price?

(06 Marks)

(d) Regional Development Authority has planned to establish a solid waste recycling facility to manage solid waste problem in the Naïve City. The proposed facility will be financed by the Bank of Naïve under its concessional annual interest rate of 12%. The proposed solid waste recycling facility has capacity to recycle a total of 10,000 MT solid wastes per day. The Naïve City Council will collect and supply solid waste to the facility at a market cost of Rs. 30 / Kg of solid waste and market price for recycled raw materials from the solid waste is Rs. 150 per Kg. There are increasing demand for recycled raw materials from the organic fertilizers producers and plastic manufacturers. According to the Regional Planning Agency of Naïve City Region, the economic price of solid waste is Rs.24 / Kg and economic price of price of recycled raw material is Rs. 190 / Kg. The recycling facility has an effective life span of 15 years. According to the project proposal, the estimated financial and economic cost and benefits of the project are as follows.

Description	Financial Basis	Economic Basis
Initial Investment	Rs. 300 Mn	Rs. 450 Mn
Annual Operation Cost	Rs. 190 Mn	Rs.175 Mn
Annual Estimated Benefits	Rs.240 Mn	Rs. 275 Mn

(i) Estimate the Conversion Factors (CF) of recycled raw materials and the solid waste in the Naïve City?

(03 Marks)

(ii) Estimate the Social Net Present Value of the proposed investment on the solid waste recycling plant facility using the UNIDO Approach and make your recommendation to the Regional Development Authority

(07 Marks)

6.

(a) What do you understand by the 'Incremental Capital Output Ratio (ICOR)' and explain its applicability in national investment planning?

(05 Marks)

(b) A developing economy has recorded an annual economic growth of 05% in 2017. According to the National Planning Authority of this economy, domestic savings to GDP ratio is 24%, and net import to GDP ratio is 06% . Estimate the ICOR of this developing economy?

(05 Marks)

(c) Critically evaluate the possibility of achieving annual economic growth of 08% by that developing economy under the given description above in the question (b) and estimate the required incremental capital output ratio to achieve the targeted economic growth of 08% annually?

(05 Marks)

(d) List out and explain any four possible strategies, which could be adopted by this developing economy with a view to achieve its annual economic growth target of 08% as described in the question (c)?

(10 Marks)

7. Write **short note** on any of five (05) topics given below. Your note should explain the concept and its applicability in the context of economic appraisal of Development Projects with appropriate example(s).

(Equal Marks: Total Marks 25)

a) Pareto Improvement

b) Border Parity Pricing

c) Social Feasibility Study

d) 'With' and 'Without' Analysis of Projects

e) Standard Average Conversion Factor

f) Externalities

g) Extended IRR method

h) Risk and uncertainty in projects

i) Capital rationing

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