

Extra Exercise

1. Perform financial analysis for Project-Rapid based on the following criteria:

- Estimated costs are \$1,500,000 in year-0 and \$500,000 each year in years 1, 2, 3, 4 and 5.
- Estimated benefits are \$0 in year-0, \$1,000,000 in year-1 and 800,000 in years 2, 3, 4 and 5.
- Use a 30 percent discount rate. Round the discount factor to three decimal places

You are required to:

- Compute the discount factor for year 0, 1, 2, 3, 4 and 5.
 - Compute the total discounted cost for Project-Rapid.
 - Compute the total discounted benefits for Project-Rapid.
 - Base on total discounted benefits and total discounted cost for Project-Rapid, give recommendation(s).
2. One of your assistant project managers has given you an earned value report which is only partially complete. Fill in the missing information shown with '?'.
(All numbers are in thousands of dollars)

WBS Work Packages	Planned Value (PV)	Earned Value EV	Actual Cost (AC)	Schedule Variance (SV)	Cost Variance (CV)
A	103	115	? (i)	12	(91)
B	0	? (ii)	40	? (iii)	? (iv)
D	42	12	33	(30)	(21)
H	66	? (v)	94	189	161
P	87	77	116	(10)	(39)
S	<u>175</u>	? (vi)	<u>184</u>	<u>(115)</u>	<u>(124)</u>
	473	? (vii)	? (viii)	? (ix)	(144)

3. Assume you have completed three months of the project. The budget at completion (BAC) was RM 200,000 for this six-month project. Also assume the following:

PV = RM 120,000

EV = RM 100,000

AC = RM 90,000

- a) What is the cost variance (CV), schedule variance (SV), cost performance index (CPI) and schedule performance index (SPI) for the project?
- b) How is the project doing in terms of time management and cost management?
- c) Use the CPI to calculate the estimate at completion (EAC) for this project. Is the project performing better or worse than planned?
(3 marks)
- d) Use the schedule performance index (SPI) to estimate how long it will take to finish this project.

Q4.	<u>Item</u>	<u>PV</u>	<u>AC</u>	<u>EV</u>
	1	10,000	11,000	10,000
	2	9,000	8,000	7,000
	3	8,000	8,000	8,000
	4	7,000	12,000	5,000
	5	6,000	12,000	6,000

Assume that all figures are project-to-date, that all items were scheduled to be completed by now, and that performance on all is credited in \$1,000 units.

- (a) Of the items which have been completed, which was farthest over budget?
- (b) Which item appears likely to have the largest cost over-run?
- (c) Of the items not yet completed, which one has fallen farthest behind in the value of physical output as measured by schedule variance?
- (d) Of the items not yet completed, which one has fallen farthest behind in the proportion of physical output as measured by the Schedule Performance Index?
- (e) For which item is there the greatest spending variance to date?

- Q5. Use a weighted score model to choose between three methods (A, B, C) of financing the acquisition of a major competitor. The relative weights for each criterion are shown in the following table as are the scores for each location on each criterion. A score of 1 represents unfavourable, 2 satisfactory, and 3 favourable.

Create a new table to show the score and state the best method.

	Method			
Category	Weight	A	B	C
Consulting Cost	20	1	2	3
Acquisition Time	20	2	3	1
Disruption	10	2	1	3
Cultural Difference	10	3	3	2
Skill redundancies	10	2	1	1
Implementation Risks	25	1	2	3
Infrastructure	10	2	2	2