

SOUTH EASTERN UNIVERSITY OF SRI LANKA

**THIRD EXAMINATION IN BACHELOR OF SCIENCE IN MANAGEMENT AND
INFORMATION TECHNOLOGY -2010/2011**

SEMESTER-I, JULY/AUGUST-2012

MIT 3103 – SOFTWARE PROJECT MANAGEMENT

Answer all questions (Calculator is allowed)

Time: 03 hours

Question 1

- a. What is involved in project scope management and why is good project scope management important on information technology projects? Explain. [6 Marks]
 - b. Briefly describe the project management framework. [6 Marks]
 - c. Describe the attributes of project in details. [8 Marks]
- [Total 20 Marks]**

Question 2

- a. Briefly describe the strategic planning process. Which project selection method(s) do you think organizations use more often for justifying information technology projects? [6 Marks]
- b. Explain the following terms briefly:
 - i. NPV
 - ii. ROI
 - iii. IRR[6 Marks]

c. You are requested to perform a financial analysis for the following project:

Assume the projected costs and benefits for this project are spread over four years as follows:
Estimated costs are Rs.10,000,000.00 in year 0 and Rs.2,500,000.00 each year in Years 1, 2 and 3.
Estimated benefits are Rs. 0.00 in year 0 and Rs.8,000,000.00 each year in Years 1, 2 and 3. Use an 8 percent discount rate.

Calculate and clearly display NPV, ROI and year in which payback occurs.

[8 Marks]
[Total 20 Marks]

Question 3

- a. Describe the advantages of networks over Gantt charts. [5 Marks]
- b. Draw the AON network diagram for the following project:

Activity	Immediate predecessor	Duration (Weeks)
H	-	10
I	H	8
J	H	6
K	J	4
L	J	2
M	J	4
N	I	4
O	I	5
P	I, J	5
Q	L	5
R	M	5
S	N	3
T	Q	3
U	O, S	1
V	K, R	5
W	U	2
X	V	3
Y	P, W, X	8
Z	T, Y	6

- i. Identify the critical path(s) and calculate the total project completion time. **[10 Marks]**
- ii. Calculate total and free slack time for each activity. **[2 Marks]**
- [3 Marks]**
- [Total 20 Marks]**

Question 4

- a. Discuss why many information technology professionals may overlook project cost management and how this might affect completing projects within budget. **[8 Marks]**
- b. Assume you have completed three months of the project. The budget at completion (BAC) was Rs.200,000.00 for this six-month project. Also assume the following:
- PV=Rs.120,000.00
 EV=Rs.100,000.00
 AC=Rs.90,000.00
- i. What is the cost variance, schedule variance, cost performance index (CPI) and schedule performance index (SPI) for the project? **[6 Marks]**
- ii. How is the project doing? Is it ahead of schedule or behind schedule? Is it under budget or over budget? **[2 Marks]**

iii. Use the CPI to calculate the estimate at completion (EAC) for this project. Is the project performing better or worse than planned? [2 Marks]

iv. Use the schedule performance index (SPI) to estimate how long it will take to finish this project. [2 Marks]

[Total 20 Marks]

Question 5

Write short description for the followings:

- a. WBS
- b. COCOMO
- c. SLOC
- d. PERT
- e. QA

[Total 20 Marks]