

The University of Fiji

School of Science and Technology

Department of Information Technology and Computer Science

ITC208

Systems Project and Quality Management

Semester II, 2012

FINAL EXAMINATION PAPER

Time allowed: 3 hours [10 Minutes Extra Allowed for reading the Paper]

Total Marks: 100

Instructions

- ✎ There are 2 main sections in this examination

Section	Marks
A (Multiple Choice Questions)	20
B (Short/Long Answer Questions)	80

- ✎ All sections are compulsory
- ✎ Start each question on a new page
- ✎ Write your Student ID number in all the pages of your answer sheet
- ✎ Do not write with pencil or highlighted pen
- ✎ Hand in the answer Booklet to the supervisor before you leave the examination hall

Good Luck!!

1. A copyediting task to which Mela had been assigned has duration of two days. You think it will take longer than 16 hours but you need the duration to remain a fixed two days. What can you do?
- a. Change the task type to fixed duration.
 - b. Add more resources to the task.
 - c. Change the dependency type between the copyediting task and its successor task to FF.
 - d. Both A and B
2. The ____ report provides a weekly summary of task costs.
- a. Task Costs
 - b. Summary Costs
 - c. Cash Flow
 - d. Task Usage
3. In the Network Diagram view, the critical tasks are displayed within a ____ border.
- a. blue
 - b. silver
 - c. black
 - d. red
4. Sereana and the team will be pushing hard on the project in its final week and she needs to change the calendar on which the resource calendar is based to accommodate night shifts. If she has never before changed the calendar, what is it set to by default?
- a. Standard
 - b. Night Shift
 - c. 24 Hours
 - d. Basic
5. In a ____ relationship, +25% lag time pushes the second task forward in time.
- a. Start-to-Finish
 - b. Finish-to-Start
 - c. Either A or B
 - d. Neither A nor B
6. ____ hours are work hours outside of those specified by the calendar.
- a. Flexible
 - b. Fungible
 - c. Overtime
 - d. Baseline
7. The default resource type on a Resource sheet is ____.
- a. Material
 - b. Fixed
 - c. Work
 - d. Basic

8. The Outdent and Indent buttons are available on the ____ toolbar.

- a. Standard
- b. WBS
- c. Organization
- d. Formatting

9. Which of the following is available only in the Resource Information dialog box?

- a. Cost rate tables
- b. Group
- c. Code
- d. Type

10. In ____ view, the lines between the boxes represent relationships between the tasks, the sequence of how the tasks must be completed.

- a. Task List
- b. Network Diagram
- c. Gantt Chart
- d. Task Calendar

11. ____ costs can be associated with labor costs or material consumable resources.

- a. Variable
- b. Fixed
- c. Budgetary
- d. Resource

12. ____ is the amount of time that an activity may be delayed from its scheduled Start date without delaying a succeeding activity or the entire project.

- a. Scope
- b. Lag
- c. Permissible delay
- d. Slack

Resource name: Your Name Initials: []

Email: [] Group: []

Windows Account: [] Code: []

Booking type: Committed Type: []

Default Assignment Owner: []

Resource Availability

Available From	Available To	Units
NA	11/30/2011	100%
12/1/2011	1/1/2012	[]

13. The item marked 1 in the figure above is the ____ button.

- a. Delete
- b. Enter
- c. Resource
- d. Link

14. The item marked 2 in the figure above is the ____ bar.

- | | |
|-------------|-----------------|
| a. Resource | c. Entry |
| b. Standard | d. Availability |

15. Which of the following report categories allows users to create reports of their own design?

- | | |
|----------------|---------------------|
| a. Assignments | c. Workload |
| b. Custom | d. Any of the above |

16. Planning a project by listing all of the individual tasks and then collecting them into logical groupings is called the ____ method of creating a WBS.

- | | |
|--------------|---------------|
| a. bottom-up | c. list-based |
| b. top-down | d. visionary |

17. One way to define the critical path is that it consists of those tasks having a float of ____.

- | | |
|-------|---------|
| a. 0 | c. 1 |
| b. -1 | d. null |

18. Arjun had just finished making all the assignments to the various project teams when the hard drive crashed and he lost all of the data. Arjun had told Joel earlier in discussing the assignments that he was going to have as one of his responsibilities the recommendation of performance improvements. Which group was he to have been assigned to?

- | | |
|---------------|----------------|
| a. initiating | c. controlling |
| b. planning | d. executing |

19. Shazreen knew that she was to have been responsible for identifying project milestones. Which group was she to have been assigned to?

- | | |
|---------------|----------------|
| a. initiating | c. controlling |
| b. planning | d. executing |

20. Prashneel was to have been responsible for identifying the project budget. Which group was he to have been assigned to?

- | | |
|---------------|----------------|
| a. initiating | c. controlling |
| b. planning | d. executing |

Question 1

[20 marks]

1. What is a project, and what are its main attributes? How is a project different from what most people do in their day-to-day jobs? What is the triple constraint?
[4 marks]
2. What is a program? What is a project portfolio? Discuss the relationship between projects, programs, and portfolio management and the contributions they each make to enterprise success.
[3 marks]
3. What does it mean to take a systems view of a project? How does taking a systems view of a project apply to project management?
[2 marks]
4. Explain the four frames of organizations. How can they help project managers understand the organizational context for their projects?
[4 marks]
5. Briefly explain the differences between functional, matrix, and project organizations. Describe how each structure affects the management of the project.
[3 marks]
6. Describe how organizational culture is related to project management. What type of culture promotes a strong project environment?
[2 marks]
7. Discuss the importance of top management commitment and the development of standards for successful project management. Provide examples to illustrate the importance of these items based on any type of project.
[2 marks]

Question 2

[20 marks]

1. What are the phases in a traditional project life cycle? How does a project life cycle differ from a product life cycle? Why does a project manager need to understand both?
[3 marks]
2. What makes information technology projects different from other types of projects? How should project managers adjust to these differences?
[2 marks]
3. Briefly describe the strategic planning process, including a SWOT analysis. Which project selection method(s) do you think organizations use most often for justifying information technology projects?
[2 marks]

4. Briefly describe and explain what happens in each of the five project management process groups. What types of activities are done before initiating a project?
[3 marks]
5. Perform a financial analysis for a project using the format discussed during lectures. Assume the projected costs and benefits for this project are spread over 4 years which starts at year 0, as follows: Estimated costs are \$200,000 in year 1 and \$30,000 each year in years 2, 3 and 4. Estimated benefits are \$0 in year 1 and \$100,000 each year in years 2, 3 and 4. Use a 9 percent discount rate, and round the discount factors to two decimal places. Calculate and clearly display the NPV, ROI, and year in which payback occurs. In addition, write a paragraph explaining whether you would recommend investing in this project, based on your financial analysis.
[3 marks]
6. Create a weighted scoring model to determine grades for a course. Final grades are based on three exams worth 20%, 15%, and 25%, respectively; homework is worth 15%; and a group project is worth 25%. Enter scores for three students. Assume Student 1 earns 100% (or 100) on every item. Assume Student 2 earns 70% on each of the exams, 80% on the homework, and 95% on the group project. Assume Student 3 earns 90% on Exam 1, 80% on Exam 2, 75% on Exam 3, 80% on the homework, and 70% on the group project.
[2 marks]
7. What is involved in project scope management, and why is good project scope management so important on information technology projects?
[2 marks]
8. Describe different ways to develop a WBS and why it is often so difficult to do.
[3 marks]

Question 3

[20 marks]

1. What is the main technique used for verifying scope? Give an example of scope verification on a project.
[1 mark]
2. Why is activity definition the first process involved in project time management?
[1 mark]
3. Explain the difference between activity duration estimating and estimating the effort required to perform an activity.
[1 mark]

4. Given the following information for a one-year project, answer the following questions.

PV = \$23 000

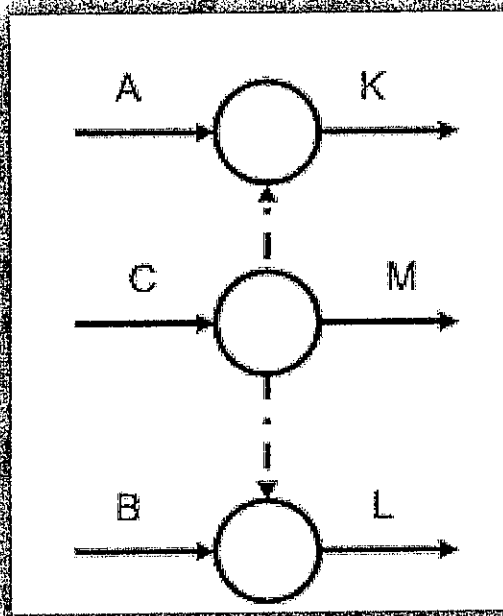
EV = \$20 000

AC = \$25 000

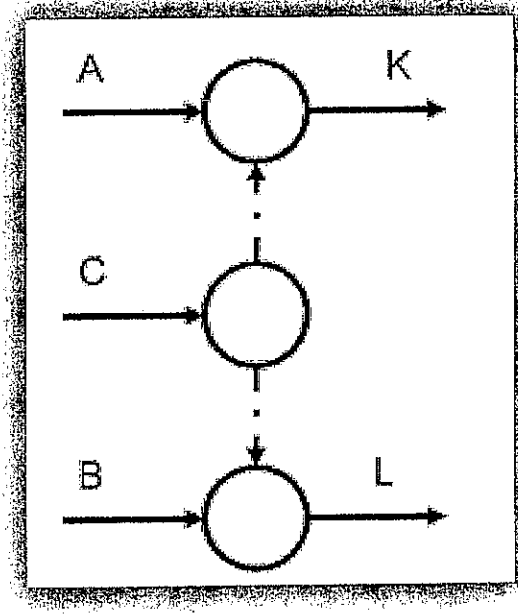
BAC = \$120 000

- a. What is the cost variance, schedule variance, cost performance index and schedule performance index for the project? [2 marks]
 - b. How is the project doing? Is it ahead of schedule or behind schedule? Is it under budget or over budget? [0.5 mark]
 - c. Use the CPI to calculate the estimate at completion for this project. Is the project performing or worse than planned? [1.5 marks]
 - d. Use the SPI to estimate how long it will take to finish this project. [1 mark]
5. What are the main processes included in planning project quality management? Explain. [2 marks]
6. What are benchmarks, and how can they assist in performing quality assurance? Support your answer with an example. [2 marks]
7. Summarize the processes involved in project human resource management. [2 marks]
8. Discuss the difference between resource loading and resource leveling and provide an example of when you would use each technique. [2 marks]
9. Summarize different tools and techniques project managers can use to help them manage project teams. What can they do to manage virtual team members? [2 marks]
10. Discuss the use of a stakeholder register and a stakeholder management strategy to assist in managing stakeholders. [1 mark]
11. What are some of the ways to create and distribute project performance information? [1 mark]

1. Compare the Gantt chart and Network Diagram views in terms of their strengths and actions commonly completed in each view. [2 marks]
2. Explain what milestones are, how they are used by project managers, and give some examples. [2 marks]
3. Explain the difference between positive and negative lag time in Project 2007. [1 mark]
4. Write the dependents of K, L and M in the two AOA diagram given below. [2 marks]



a)



b)

5. List five reasons why organizations outsource. Why is there a growing trend in outsourcing, especially in offshore? [5 marks]

6. A proposed Air Traffic control tower uses a control console which has to meet the needs of the particular airfield. Given below is a list of activities and duration. Draw the AOA network diagram, assuming that design of the foundation is dependent on the design of the tower. [8 marks]

Activities Involved	Duration (weeks)
Design console	3
Order console	2
Fabricate and deliver console	16
Install console	2
Test console	4
Design tower	5
Design foundations	1
Order foundations material	1
Deliver foundations material	1
Construct foundations	1
Order tower construction materials	2
Deliver tower construction materials	3
Erect tower	8

The End!

