



Student Name

Answers Test 3

Course Number

FIGNT 331

Section

1+52

Date

11 - April 2018

Student ID Number

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Important Marking Instructions

- Make marks that fill bubbles completely
- Example
- Erase unwanted marks cleanly
- Make no stray marks on this form

Test Items

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# MGMT331 – Project Management – In-class test 3 (sections 1 and 52)

Duration: 60 minutes – weighting: 20%

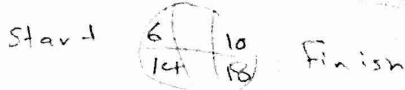
Closed book – only writing materials permitted – use scantron sheet and write in spaces provided

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Section I (20 marks): MCQ – answer all questions; select the best answer.

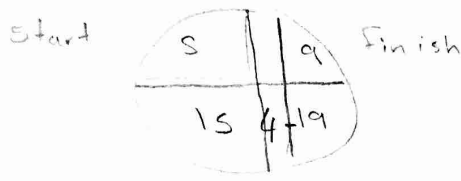
- 1) The major disadvantage of using standard Gantt (bar) charts to manage a project is that these charts:
- a) Normally do not show logical dependencies between activities.
  - b) Are ineffective for projects involving less than 10 different people.
  - c) Are ineffective for short projects.
  - d) Do not identify the start and end dates of the project.
  - e) Do not show the passage of time.
- 2) Before a project network schedule can be developed, it is necessary to:
- a) List all tasks.
  - b) Determine the logical dependencies between the tasks.
  - c) Calculate the durations of all tasks.
  - d) Assign resources to tasks.
  - e) All of the above except D.
- 3) Reducing the peaks and valleys in resource assignments in order to obtain a relatively smooth resource requirement curve is called:
- a) Resource allocation.
  - b) Resource levelling.
  - c) Responsibility allocation.
  - d) Resource commitment planning.
  - e) Resource scheduling.
- 4) The major disadvantage of using charts like AND or PERT networks to manage a project is that these charts:
- a) Do not show logical dependencies between activities.
  - b) Are ineffective for projects involving less than 10 different people.
  - c) Are ineffective for short projects.
  - d) Do not identify the start and end dates of the project.
  - e) Do not show the passage of time.

- 5) The shortest time necessary to complete all of the activities in a project network is called the:
- Activity duration length.
  - Critical path.
  - Maximum slack path.
  - Compression path.
  - PERT time.
- 6) Which of the following cannot be identified after performing the forward and backward passes?
- Dummy (fake) activities.
  - Slack time for all activities.
  - Critical path activities.
  - How much overtime is planned.
  - Duration of the entire project.
- 7) Which of the following is not a commonly used technique for schedule compression?
- Resource reduction.
  - Scope reduction.
  - Outsourcing.
  - Use of overtime.
  - Parallelization of activities.
- 8) A large project network has four distinct (unconnected) paths to the last activity, respectively of 7, 8, 9 and 10 weeks. If the 10-week path is compressed to 8 weeks, then:
- 4 paths
- 
- There are now two critical paths, each finishing week 8.
  - The 9-week path is the new critical path.
  - Only the 7-week path has slack.
  - The 9-week path has slack.
  - Not enough information is provided to decide between the above options.
- 9) If an activity on the critical path takes longer than anticipated, then:
- Activities not on the critical path have additional slack.
  - Activities not on the critical path have less slack.
  - Additional critical path activities will appear.
  - Nothing else changes, the project continues as planned.
  - None of the above.
- 10) Activities with no slack are called:
- Non-critical activities.
  - Critical activities.
  - PERT activities.
  - Gantt activities.
  - Dummy (fake) activities.



- 11) On a project network, an activity' earliest start is week 6, its earliest finish is week 10, its latest start is week 14 and its latest finish is week 18. The slack of this activity is:
- a) A) 0 (no slack).
  - b) B) 4 weeks.
  - c) C) 6 weeks.
  - d) D) 8 weeks.
  - e) E) 12 weeks.

- 12) On a project network, an activity' earliest start is week 5, its earliest finish is week 9, its latest start is week 15 and its latest finish is week 19. The duration of this activity is:



- a) 0 (no duration).
- b) 4 weeks.
- c) 6 weeks.
- d) 8 weeks.
- e) 12 weeks.

- 13) The two major components of a risk are:

- a) Time and cost.
- b) Probability and effect.
- c) Quality and time.
- d) Cost and decision-making circumstances.
- e) Resources affected and scope.

- 14) Avoidance, mitigation and transfer are examples of risk:

- a) Contingencies.
- b) Uncertainties.
- c) Handling.
- d) Allocations.
- e) Consequences.

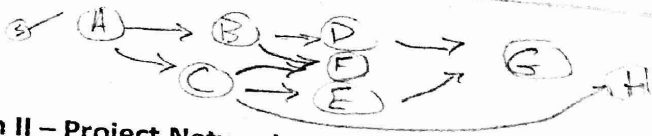
- 15) In which life-cycle phase would project risks and uncertainty be the greatest?

- a) Initiation.
- b) Planning.
- c) Execution.
- d) Closure.
- e) Monitoring.

- 16) An analysis of interactions between decisions and possible scenarios is called:

- a) Decision tree analysis.
- b) Earned value measurement system.
- c) Network scheduling system.
- d) Payoff matrix.
- e) Risk register.

- 17) A risk handling strategy that establishes alternative solutions to make sure that a project's overall objectives are delivered if adverse events occur is called:
- a) Risk avoidance.
  - b) Risk acceptance.
  - c) Risk mitigation.
  - d) Risk transfer.
  - e) Contingency planning.
- 18) To develop a pay-off matrix, project managers:
- a) List all the possible scenarios.
  - b) Assess the degree of probability that these scenarios will take place.
  - c) List the possible strategies.
  - d) Identify the payoffs associated with each scenario-strategy combination.
  - e) Do all of the above.
- 19) Categories of project risk include:
- a) Scope, quality and Gantt chart risks.
  - b) Scope, schedule and resource risks.
  - c) Quality, schedule and PERT risks.
  - d) Quality, resource and defect risks.
  - e) Schedule, dependency and duration risks.
- 20) To identify risks, project managers should:
- a) Brainstorm.
  - b) Talk to experts.
  - c) Use their experience and judgement.
  - d) Consult past projects' archives.
  - e) Do all the above.



**Section II – Project Network Diagram problem (7 marks)**

Consider the following information about a project and answer all questions.

Activities	Predecessor(s)	Duration (days)
A	-	3
B	A	3
C	A	2
D	B	3
E	C	7
F	B, C	3
G	D, E	6
H	C	12

*total*

21) The overall duration of the project is:

- a) 7 days.
- b) 9 days.
- c) 12 days.
- d) 18 days.
- e) 21 days.

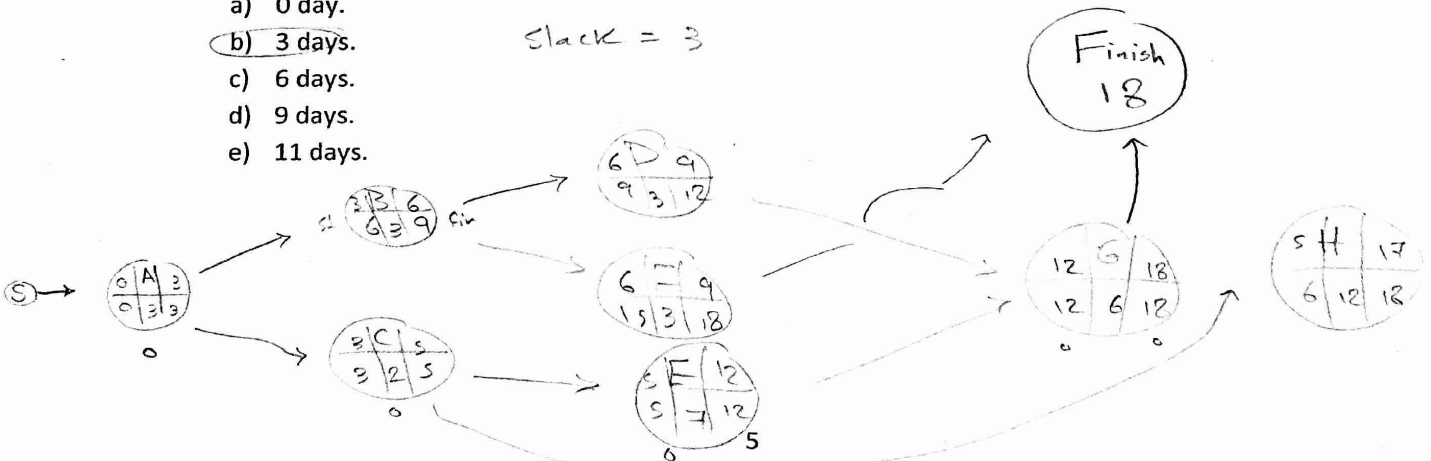
22) The critical path of the project is:

- a) A – B – D – G.
- b) A – C – F.
- c) A – C – E – G.
- d) A – C – H.
- e) A – B – F.

23) By how many days can activity D be delayed without extending the end date of the project?

- a) 0 day.
- b) 3 days.
- c) 6 days.
- d) 9 days.
- e) 11 days.

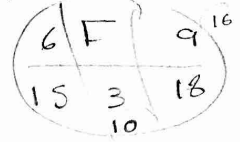
*Slack = 3*



- 24) The latest finish time of activity B is:
- 2 days.
  - 3 days.
  - 6 days.
  - 9 days.
  - There is not enough information to decide.

- 25) What is the new project's end date if activity F takes 10 days to complete?
- 12 days.
  - 14 days.
  - 16 days.
  - 18 days.
  - 28 days.

\* ans: no critical activities do not affect the completion date.



- 26) What happens if activity H takes 1 extra day to complete?

- Nothing.
- The project is delayed by one day.
- The project is delayed by two days.
- The project finishes one day earlier.
- There is not enough information to decide.

\* non critical does not affect.

- 27) What happens if activity E takes five days less than anticipated?

- The project finishes in 9 days.
- The project finishes in 13 days.
- The project finishes in 15 days.
- The project finishes in 17 days.
- The project finishes in 19 days.

### Section III – Risk management problem (5 marks)

Consider the following pay-off matrix and answer all questions.

Scenario	High demand	Moderate demand	Low demand
Scenario probability	0.20 20%	0.50 50%	0.30 30%
Strategy 1	\$50m	\$40m	\$90m
Strategy 2	\$50m	\$30m	\$60m
Strategy 3	max max \$100m	\$80m	-\$50m

180  
1410  
130  
33.3%

S1  $(0.20 \times 50) + (0.50 \times 40) + (0.30 \times 90) = 57$  (5999.0)

S2  $(0.20 \times 50) + (0.50 \times 30) + (0.30 \times 60) = 43$  (4666.2)

S3  $(0.20 \times 100) + (0.50 \times 80) + (0.30 \times -50) = 45$  (4332.9)

28) Is there a dominant strategy?

- a) Yes.
- b) No.
- c) Not enough information to decide.

29) Based on expected values, the best strategy is:

- a) S1.
- b) S2.
- c) S3.
- d) S1 or S3.
- e) Not enough information to decide.

30) Based on Hurwicz principle (a.k.a. 'maximax'), the best strategy is:

- ~~a) S1.~~
- b) S2.
- c) S3.
- d) S1 and S2.
- e) Not enough information to decide.

31) If you believe the project manager will obtain the worst outcome whatever the strategy, the best decision is:

- a) S1.
- ~~b) S2.~~
- c) S3.
- d) S2 or S3.
- e) Not enough information to decide.

*the best of the worst.  
(maximin)*

32) Based on Laplace principle (equal probability for all strategies), the best strategy is:

- a) S1.
- b) S2.
- c) S3.
- d) S2 and S3.
- e) Not enough information to decide.