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## END SEMESTER EXAMINATION - JULY 2016

## MGT 30725 Project Management

| Date | $:$ | 23 rd July 2016 |
| :--- | :--- | :--- |
| Time | $:$ | 1.00 p.m. -3.30 p.m. |
| Duration | $:$ | Two and a half $(021 / 2)$ hours |

## Instructions to Candidates:

- This is NOT an open book exam
- This paper consists of two sections (A and B).
- Section A - Answer ALL questions in the sheet provided.

Section B - Answer any Four (04) questions out of the Five (05) questions

- The total marks for the paper is 100 .
- The marks for each question are shown in brackets.
- Non programmable calculators are allowed.
- Answers should be written neatly and legibly.


## PART A

Answer ALL questions

Write your answer in the answer sheet given.
Choose only ONE answer per question. Cross the answer with a " X " sign.
Marking two or more answers will reject that answer and will award zero (0) marks for that question.

1. Which technique is recommended for subdividing the project into smaller components called activities, as you are creating the Activity List?
A. Decomposition
B. Rolling Wave Planning
C. Expert judgment
D. Deconstruction
2. The most detailed level of the WBS is called the $\qquad$ .
A. WBS element
B. Work package
C. Project scope
D. Deliverable
3. If the project's current total earned value (EV) is $\$ 100,000$ and the actual amount spent (AC) is $\$ 95,000$, what is the cost variance of the project?
A. The cost variance is 1.05
B. The cost variance is 5,000
C. The cost variance is 0.95
D. The cost variance is $-5,000$
4. The technique most commonly used by project management software packages to construct a project schedule network diagram is:
A. Activity-On-Node (AON)
B. Finish-to-Start (FS)
C. Activity-In-Node (AIN)
D. Node-On-Activity (NOA)
5. Which has the highest richness and the effectiveness of communication?
A. Phone
B. E-mail
C. Face to Face Communication
D. Video conferencing
6. The Project Charter formally authorizes a project. Who authorizes the project charter?
A. The project manager
B. A project sponsor
C. The user of the product
D. Project team
7. Two efficiency indicators that reflect the cost and schedule performance of a project are:
A. Cost Projection Index (CPI) and Schedule Projection Index (SPI)
B. Cost Performance Index (CPI) and Schedule Performance Index (SPI)
C. Actual Cost (AC) and Planned Value (PV)
D. Cost Pricing Index (CPI) and Schedule Performance Index (SPI)
8. If you want to compress a project schedule, what are two of the recommended alternatives to consider?
A. Fast Tracking and Schedule Network Analysis
B. Crashing and Fast Tracking
C. Resource Leveling and What-If Scenario Analysis
D. Crashing and Schedule Network Analysis
9. While analyzing a project, the project manager calculated the ratio of the Earned Value (EV) to the Actual Costs (AC) and obtained a value of 1.2. The project manager decided that this was an unfavorable condition to the project and decided to take corrective action. What is your view?
A. The project manager is correct. The ratio of EV to AC is called Cost Performance Index and a ratio greater than 1 is unfavorable to the project
B. The project manager is not correct. The ratio of EV to AC is called Cost Variance and a ratio greater than 1 is favorable to the project.
C. The project manager is not correct. The ratio of EV to AC is called Cost Performance Index and a ratio greater than 1 is favorable to the project
D. The project manager is correct. The ratio of EV to AC is called Cost Variance and a ratio greater than 1 is unfavorable to the project
10. Which of these is not an approved Estimate Activity Durations technique?
A. Three Point Estimating
B. Parametric Estimating
C. Analogous Estimating
D. Critical Path Estimation
11. A Work break down structure (WBS) numbering system allows the project team to
A. Provides project justification
B. Systematically estimates cost of work break down structure
C. Use it in project management software
D. Identify the level at which elements are found
12. You are the project manager for the NBG Project. This project must be completed within six months. This is an example for:
A. Schedule
B. Assumption
C. Constraint
D. Planning process
13. Which of the following is an example of a lag?
A. A new system can be ordered from the manufacturer without delaying the project
B. The critical path
C. A delay after the sheetrock (wall board) is done in a house to allow it to dry before continuing work in that area
D. The earliest a new system can be ordered from the manufacturer
14. You are the project manager for the POL Project. This project will use a three-point estimate to calculate the estimates for activity duration. For Activity D, you have the following information: $\mathrm{P}($ Pessimistic $)=9$ weeks, $0($ Optimistic $)=4$ weeks, M (Most likely) $=5$ weeks. What is the result of this estimate?
A. 18 weeks
B. 5.5 weeks
C. 33.33 days
D. 3 weeks
15. Jane, who is the project manager has a question about the Research activity's progress and is interested in knowing why it appears to have fallen behind. According to the chart provided, who is responsible for this activity?

| Activity | Todd | Al | Anne | Henry |
| :---: | :---: | :---: | :---: | :---: |
| Define | A | R | C | I |
| Research | I | R | A | I |
| Compile | A | I | R | I |

A. Todd
B. Al
C. Anne
D. Henry
16. In Project quality management, Quality assurance means?
A. Project will not be faced a quality issue
B. Project has a quality controller
C. It indicates management is experienced in quality management
D. Project has required processes and standards to manage quality.
17. Which of the following is not a type of cost estimate?
A. Rough order of magnitude
B. Budgetary
C. Mix cost calculates
D. Definitive
18. If an Activity has a 0 float,
A. Activity is in Critical path
B. Activity has an early start of 0
C. Activity is not critical
D. Any changes to the duration, will not impact the project schedule
19. Activity C is an activity in a network diagram and, activities A and B are the two predecessors of C. Early finish of the Activities A and B are 12 and 9 weeks respectively. What will be the early start of Activity C ?
A. 9 weeks
B. 12 Weeks
C. 21 weeks
D. 4 Weeks
20. All of the following are parts of the Scope base line EXCEPT:
A. Scope management plan
B. Approved project scope statement
C. Work break down structure (WBS)
D. WBS dictionary

## PART B

Answer ANY FOUR (04) questions out of five (05)

## Question No. 01

PMI defines a project as "A temporary endeavor undertaken to create a unique product, service or result".
a. Provide your explanations to the following terms:
i. Temporary
ii. Unique
(05 Marks)
b. When managing a project, most project managers (PMs) are serious about the "Triple Constraints". Briefly explain why a PM is concerned about the Triple Constraints.
(05 Marks)
c. "Projects differ from Operations". Explain this statement with an example. (05 Marks)
d. Projects, Programs and Portfolios are three different concepts, even though they may have a dependency. Briefly explain how they differ from each other.
(05 Marks)
(Total 20 Marks)

## Question No. 02

You are building a 4 -sided fence. Each side is of equal length and you estimate that each side will contain the same material and labor costs as well as take the same amount of time to complete. You estimate that the project will take 4 days to complete and your budget, including a contingency reserve is $\$ 4,000$.

At the end of 3 days, you are asked to prepare an Earned Value calculation in order to determine how the project is progressing. You determine that as of the end of day 3 , total costs incurred are $\$ 3,500$, and $70 \%$ of the project is completed.
a. Determine PV, AC, EV and BAC
b. Calculate: SV, CV, SPI and CPI
c. What is the new estimated budget (EAC)

## Question No. 03

Use the data in the table to answer the questions bellow

| Activity | Preceding Activity | Duration in <br> Months |
| :--- | :--- | :--- |
| A | Start | 6 |
| B | A | 5 |
| C | A | 4 |
| D | B | 10 |
| E | B | 11 |
| F | C | 6 |
| G | D | 4 |
| H | E | 6 |
| I | F | 5 |
| J | G,H,I | 3 |
| K | G,J | 4 |
| L | J | 6 |

a. Draw the network and Activity on node (AON) diagrams for the above example
b. Find the Critical path and the project duration
c. If Activity G has been delayed by 4 months due to the HR issue, what is the new project duration? Explain your answer

## Question No. 04

You are the Project Manager for launching a 5 day PMP (project management professional) training course. When you have estimated the budget for this project as Rs. 250,000 and determined that you need to recruit at least 10 students to breakeven. You have identified following as deliverable of the project.

- e-flyer (brochure) to be used in email campaign to recruit potential students for the course.
- Poster size of A3 to be hanged in leading universities.
- Student Registration form.
- Course materials to be used at the class.
- Registered student list on the first day of the course
a. Create a high level project charter for the above project. Make your assumptions and state these in the document.
(05 Marks)
b. Create a WBS for the above project. Make your assumptions and state these in the document.
(10 Marks)
c. Why do you think the WBS is an important document for a project?


## Question No. 05

Many Project Managers have stated, "People are the most important asset; people determine the success and failure of projects".
a. "Highly motivated employees are critical success factors for a project". Briefly explain this statement.
(05 Marks)
b. A RACI chart is a matrix of all the activities undertaken in a project set against all the people. Explain the importance of the usage of RACI in a project.
c. Briefly discuss the four stages of Team Development.
d. Briefly discuss the fundamental motivational aspects of the "Two-Factor Theory of Motivation by Frederick Herzberg".
(05 Marks)
(Total 20 Marks)

