

Name: _____

**Final Exam
350 points**

Part I. Multiple Choice (2 points each, 300 Points total)

1. _____, outline what is included in the project scope and what is not included.
A. Project deliverables
B. Project boundaries
C. Project expectations
D. Project documentation

2. A work breakdown structure (WBS) is a _____ analysis of the work involved in a project that defines the total scope of the project
A. Deliverables-oriented
B. Product-oriented
C. Planning-oriented
D. Process-oriented

3. To assist in budget control, it is suggested that the scope definition occur at the _____ level of the WBS
A. Highest **B. Lowest** C. Major work effort D. Third

4. _____ sorts the data into time blocks by resource skill and it is designed to support capacity planning needs by showing the demand for various skills over time
A. Organizational Breakdown Structure
B. Resource Breakdown Structure
C. Work Breakdown Structure
D. Contract Work Breakdown Structure

5. _____ used to define specific details related to the work activity
A. Decomposition
B. Work Package
C. WBS Dictionary
D. Activity scope

6. _____ relates to a development activity of a project when a third party vendor provides a key deliverable.
A. External dependencies
B. Internal dependencies
C. Discretionary dependencies
D. All of the above

7. A risk is a(n) _____ occurrence that has a positive or a negative effect on a project.
A. Known **B. Uncertain** C. Certain D. Potential

8. Scope Creep refers to any _____ in scope beyond the original baseline

A. **Increase** B. Controlled C. Limited D. Maintained

9. Decomposition is the process of breaking down the WBS into smaller _____ to get increased work detail.

A. **Work packages** B. Section C. Issues D. Time

10. A cost estimating technique that uses project characteristic (parameters) in a mathematical model to estimate project cost. _____

A. Analogous

B. Bottom Up

C. **Parametric**

D. Work Package design units

11. A senior manager who acts as a key proponent for a project is referred to as a _____

A. Project manager

B. CEO

C. **Sponsor**

D. Key Stakeholder

12. Starting a new task before finishing the previous one is an example of a _____ dependency.

A. Lag

B. **Lead**

C. Start-to-start

D. Finish-to-Finish

13. _____ is generally shown at level 2 of a WBS.

A. Management

B. Departments

C. **Project Life Cycle**

D. Responsibility matrix

16. The project charter has all of the following characteristics except:

A. Its primary use is to authorize the start of a project or phase.

B. It provides the project manager with authority to apply resources and expend money on project activities.

C. **Its primary use is to request bids or proposals for the work it defines.**

D. The project charter can be created by the person external to the project, responsible for the authorization of the work or that person can delegate the creation of the project charter to the project manager.

17. The responsibility assignment matrix (RAM) shows:

A. **The connections between activities and project team members.**

B. The delegation of responsibility through the hierarchically organized management structure.

C. Accountabilities to assist in team performance appraisals.

D. The sequence of activities a named resource is responsible for accomplishing

18. The most critical element in a project's communication system is the:

A. Progress report

B. Project directive

C. **Project manager**

D. Customer

19. The WBS and RBS (Resource Breakdown Structure) are examples of _____.

A. Control charts

B. Hierarchical charts

- C. Project standards
- D. Run charts

20. Projects may be authorized by all of the following except _____

A. The project team

- B. A sponsor
- C. A PMO
- D. A portfolio review board

21. The formal review of key deliverables and project performance at the conclusion of a project phase is called:

- A. phase exit
- B. kill point
- C. stage gate
- D. a and c

E. all of the above

22. Which of the following is NOT an example of a type of schedule report?

- A. Gantt chart
- B. Milestone chart
- C. Fishbone diagram**
- D. Network diagram

23. Plan activities with no duration and no resources used to show a logical relationship between two activities in the arrow diagramming method of project network diagrams is called

- A. Milestone
- B. **Dummy**
- C. Stage Gate
- D. Critical Point

24. A document or artifact that describes detailed information about each work unit is _____

- A. Scope plan
- B. WBS
- C. **WBS Dictionary**
- D. MS Project

25. A project is defined as:

- A. A process of considerable scope that implements a plan.
- B. An endeavor, which is planned, executed, and controlled; performed by people; and constrained by limited resources.

C. A temporary endeavor undertaken to create a unique product or service.

- D. An objective based effort of temporary nature.

26. A project kick off meeting is usually conducted to:

A. Initial communication to project team

- B. To draft project Charter
- C. Build up team spirit
- D. Define project scope and develop WBS

27. The project Scope Statement should contain which of the following?

- A. Project schedule
- B. Project budget constraints
- C. Summary of project tasks , deliverables and resources required

D. Project objectives

28. The Project Charter is created by:

- A. The project manager
- B. Upper management (above the project)**
- C. The Vice President over a functional management group
- D. The customer

29. The Scope Baseline is:

- A. the original Charter description of the project's end results
- B. a summary description of the project's original content and end product, including basic budgetary and time constraint data**
- C. the original project budget and schedule
- D. a and c

30. Each project phase is marked by completion of one or more:

- A. Tasks
- B. Milestones
- C. Deliverables**
- D. Life cycles

31. To crash a schedule you should:

- A. Increase the time allowed on those tasks that have float.
- B. Try to increase expenditures of time only those tasks that are behind schedule.
- C. Replace those workers that are not performing up to par with the busy.
- D. Increase work efforts on critical path tasks.**

32. Successful project managers spend most of their time:

- A. Planning with their personnel
- B. Planning with the top management
- C. Communication with the project team**
- D. Evaluating project results

33. One of the initial project documents issued by senior management outlining the project manager's authority is called a project Charter. In the case of a third party type relationship, what other document can be used in this place:

- A. Work breakdown structure
- B. Project scope
- C. Contract**
- D. Internal memo

34. At which stage, in a typical project do stakeholders have maximum influence?

- A. Initial stage**
- B. Middle stage
- C. Final stage
- D. Shareholders have similar influence at all stages

35. Which of the following is not considered to be a project constraint?

A. Scope B. Resources C. **Team** D. Budget

36. What kind of a relationship is implied when completion of a successor is dependent on initiation of its predecessor?

A. FS B. FF C. SS D. **SF**

37. What should a project manager do or follow to ensure clear boundaries for a project?

A. Scope verification process
B. **Complete a formal scope statement**
C. Draw a WBS
D. Develop a Risk management plan

38. Present value of cash inflow (benefits) minus present value of cash outflow (costs) is called...

A. Present Value(PV)
B. Internal Rate of Return(IRR)
C. Payback period
D. **Net present value(NPV)**

39. The difference in return between a chosen investment and one that is passed up is

A. Present Value(PV)
B. Internal Rate of Return(IRR)
C. Sunk cost
D. **Opportunity cost**

40. Which of the following is not considered a project failure criteria

A. Scope creep
B. Lack of resources
C. **All customer requirements satisfied**
D. Unrealistic planning and scheduling

41. This term represents the actual calendar days/months/years required for an activity from start to finish

A. Effort B. Activity Duration C. **Elapsed Time** D. Total Slack

42. The work that must be done to deliver a product with the specified features and functions is called

A. WBS
B. Requirement gathering
C. Product scope
D. **Project scope**

43. If an activity on the critical path is delayed, what is the most likely thing that needs to be done?

A. Inform customer about delay
B. Decrease scope
C. **Compress the schedule**
D. Allocate more resources to cut the schedule

44. Which of the following statements is true regarding a Work Breakdown Structure (WBS)

A. It identifies the project elements that require resources.

- B. It is used to organize the cost estimates and to ensure that the cost of all identified work has been estimated.
- C. It provides the relationship among all the components of the project and the project deliverables.
- D. All of the above**
45. Which is the least risky phase of a project?
- A. Planning B. **Closing** C. Execution D. Control
46. Which of the following documents are used to justify the project?
- A. Business Case**
- B. Project Charter
- C. Project Management plan
- D. Scope statement
47. Which estimating technique is considered to produce the most accurate time and cost estimate.
- A. Bottom-up estimating**
- B. Analogous estimating
- C. Parametric modeling
- D. None of the above
48. You are working in an organization where all the employees are divided into groups by specialty such as sales, support and engineering. In which type of organization you are working in
- A. Functional** B. Strong matrix C. Weak matrix D. Tight Matrix
49. An activity has an Early Finish (EF) of 5 days and Late Finish (LF) of 16 days. What is activity's float
- A. 11 days** B. 21 days C. 5 days D. 16 days
50. Product acceptance criteria should be defined in which document
- A. Project scope statement**
- B. Work breakdown structure
- C. Resource assignments
- D. Project scope management plan
51. This is the total time an activity can be delayed without delaying project completion
- A. Free Float
- B. Total Slack**
- C. Node Slack
- D. Critical path variance
52. The process of compressing total project duration by performing some activities concurrently is called
- A. Fast-Tracking**
- B. Crashing
- C. Scheduling
- D. Resource allocation
53. What is defined as the longest duration path through a network diagram
- A. Total Slack

B. Critical Path

- C. Float
- D. Slack

54. An analogous estimate is also called a

- A. Bottom-up Estimate
- B. Parametric Estimate
- C. Top-down Estimate**
- D. Three Point Estimate

55. What term is used to define a delay in the start of a successor activity

- A. Lead
- B. Lag**
- C. Effort
- D. Dependency

56. In a weak matrix, the majority of the overall human resource authority is held by

- A. Functional Manager**
- B. Team Members
- C. Project Manager
- D. Technical Manager

57. Which of the following is not normally defined as a Work Package attribute

- A. Person responsible for the activity
- B. Location where to perform the activity
- C. The calendar schedule date to perform the activity**
- D. Leads and Lags

58. A schedule activity defined to end concurrently with its successor is an example of

- A. Finish-to-Start
- B. Start-to-Finish
- C. Start-to-Start**
- D. Finish-to-Finish

59. A networking method to initially establish activity sequencing is most typically defined to be done using which of the following:

- A. Precedence Diagramming Method [PDM]**
- B. PERT/CPM
- C. Fragmented Network
- D. Mandatory Dependencies

60. Moving resources to avoid overallocation is an example of which project scheduling technique?

- A. Critical Path Method
- B. Schedule Compression
- C. What-if Analysis
- D. Resource Leveling**

61. Which of the following is not a part of the project initiation phase?

- A. **Project baseline** B. Vision and goals C. Business Case D. Charter
62. For a work unit estimate requiring 240 Hours, 2 people are allocated. How much time will it take for this to be completed using normal assumptions?
 A. 20 Days B. **15 Days** C. 25 Days D. 10 days
63. The longest path through a network determines the _____ completion of the project
 A. **Earliest**
 B. Variance
 C. Slowest
 D. Over – Budgeted segment
64. Critical Path is normally considered to have _____ float.
 A. Some
 B. PM and Client agreed
 C. **Zero**
 D. Unavoidable
65. According to its classical definition PERT involves _____ time estimates.
 A. Deterministic
 B. **Probabilistic**
 C. Activity based
 D. Duration-based
66. In network calculations, Float is another name for _____
 A. **Slack**
 B. Resource shortage
 C. Floating activity
 D. Parallel activity
67. The fundamental role of a baseline is for _____.
 A. Change control
 B. Rescheduling activities
 C. Comparing similar projects
 D. **Monitoring and control**
68. What shape is used to represent a milestone activity in Microsoft Project 2010.
 A. Square B. Rectangle C. **Diamond** D. Circle
69. Which of the following could be an appropriate WBS code for a work package at the fourth level in a WBS where a second level code is 1.0?
 A. 1.4 B. **2.2.3** C. 1.2.3.4 D. A and C
70. Among the various ways the WBS boxes can be organized which one is NOT normally one of them
 A. Organizational Breakdown Structure
 B. Resource Breakdown Structure
 C. Contract Work Breakdown Structure

D. **Time Breakdown Structure.**

71. Scope defined in terms of features and functions is:

- A. Project scope
- B. **Product scope**
- C. Both project scope and product scope
- D. Neither project scope and product scope

72. The purpose of performing a backward network pass is to:

- A. determine the critical path
- B. determine where there is float
- C. determine the late finish
- D. **all of the above**

73. The classical CPM network was defined using a(n)

- A. AOA
- B. **AON**
- C. PDM
- D. Gantt chart

74. The collection of organizational projects is called

- A. Program
- B. Strategic projects
- C. **Portfolio**
- D. Enterprise planning

75. After the project plan has been approved by management as to its viability and acceptance it is frozen for future status comparison. This process is called

- A. Budget plan
- B. Trilogy standards
- C. **Baselining**
- D. Critical path

76. Which of the following is the most important Project Management skill according to Project Managers

- A. **Communication skills**
- B. Organizational skills
- C. Team building skills
- D. Leadership skills

77. When viewing the Resource Sheet one of the resource names appears in Red. What does this mean?

- A. The name is misspelled
- B. The resource is not assigned to any tasks
- C. **The resource is overallocated**
- D. The resource has not been properly added to the Resource Sheet

78. Assume there are two tasks, A & B. You want to define Task B to start 2 days after Task A has started. How would you specify this relationship in the Predecessor field for Task B?

- A. FS+2 days
- B. FS-2 days

C. **SS+2 days**

D. SS-2 days

79. You would like to review a list of all the resources and the tasks that they are assigned to. What view best displays this information?

A. Resource Sheet

B. Task Usage

C. Gantt Chart

D. **Resource Usage**

80. If you create a MS Project 2010 file and save the file with a start date of 2 weeks from now. Which of the following statements are correct:

i. The Project finish date is calculated

ii. The Project will employ backward scheduling to fit some defined date

A. **i only**

B. I & ii both

C. ii only

D. Neither of them

81. You are creating a WBS and need to display work units. What is work unit?

A. A project phase

B. A task that fits within the manageable time frame

C. A collection of work within a phase

D. **An defined incremental unit of work required to complete the project**

82. You have finished creating the WBS and the project sponsor asks to see the schedule in Gantt chart format. What is he looking for?

A. A Gantt chart represents the total time involved for each team member

B. A Gantt chart represents the total time involved for entire team

C. **A Gantt chart illustrates the WBS visually in a time-based format**

D. A Gantt chart illustrates the WBS in relation to the finances planned for the project

83. Of the different methods used to create a WBS, which best represents the idea of decomposition?

A. **Top-down**

B. Bottom-down

C. Double-down

D. Bottom-up

84. Why should the project scope be guarded against excess change?

A. It adds additional team members to the team

B. It distracts the team from the project

C. **Change in scope can have a huge impact on the project's success**

D. The project sponsor will be confused by the outcome

85. What should signify the end of each project phase?

A. A milestone that has been reached

B. A party for the project team

C. A date that has been establish within the WBS

D. A defined deliverable

86. What is project Kick-off meeting?

- A. It is assignment of task to the team members
- B. It is the introduction of the project sponsor
- C. It is the launch of the project to key stakeholders**
- D. It is the formal end of project planning

87. Of the following what is the main drawback of a Gantt chart?

- A. Gantt charts are difficult to create and adjust
- B. Gantt charts do not display task details
- C. Gantt charts do not reflect the interlinkage between tasks**
- D. Gantt charts are not compatible with a WBS

88. Which of the following consume no resources or duration?

- A. Summary package
- B. Milestone**
- C. Recurring Task
- D. A and B

89. A network diagram that uses nodes to represent activities and arrows to show the activity dependencies and allows no activity looping is called:

- A. AOA
- B. AON**
- C. ADM
- D. GERT

90. The work breakdown structure is a critical tool for the project and the planning of the project. The lowest level of the work breakdown structure represents the _____ for the schedule network.

- A. WBS Dictionary
- B. LOE
- C. Planning Package
- D. Work Package**

91. AOA refers to:

- A. Precedence Diagramming Method [PDM]
- B. Arrow Diagramming Method [ADM]**
- C. Fragment Network
- D. Mandatory Dependencies

92. The time period it takes to recover your investment in the project before the company starts to accumulate profit is called

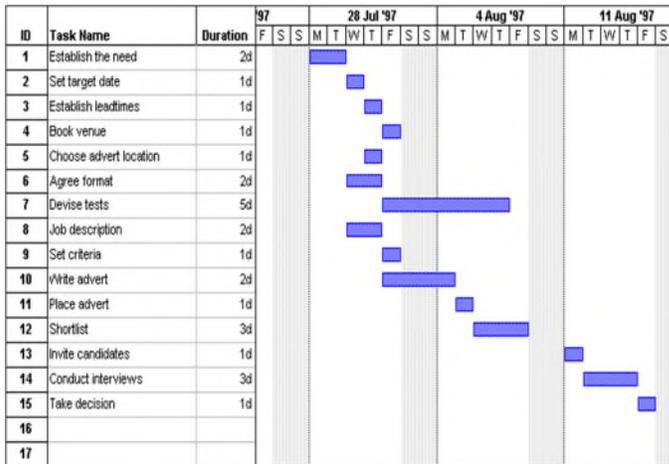
- A. Opportunity cost
- B. Sunk cost
- C. Payback period**
- D. Present value

93. Which of the following organizational forms gives the most authority to the project environment?

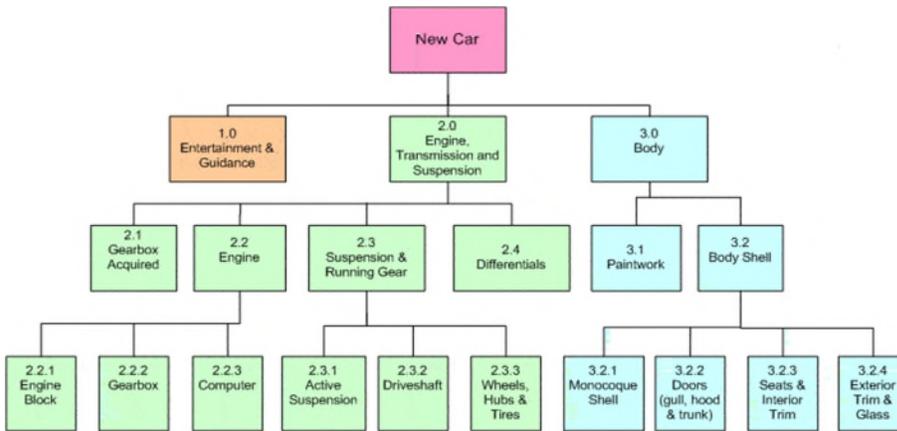
- A. **Projectized structure**
 - B. Matrix structure
 - C. Functional
 - D. None of the above
94. "Three Point Estimate" is used to estimate the time required for the project based on historic information, which does not include
- A. Most optimistic
 - B. Most pessimistic
 - C. **Most probabilistic**
 - D. Most Likely
95. What term represents the number of person-hours required to complete an activity?
- A. Elapsed time
 - B. Resource allocation
 - C. **Effort**
 - D. Duration
96. The project Scope baseline includes which of the following
- A. Scope statement
 - B. WBS
 - C. WBS dictionary
 - D. **All the above**
97. Rather than re-defining the project plan activities for each new project It is common to reuse past data that have been previously tested and found to identify much of the activities needed for typical projects. What is the vocabulary term to define this reuse?
- A. MS Project
 - B. Baselining
 - C. **Template**
 - D. Standard Charter
98. A good metric will typically
- A. Change organizational behavior in that direction
 - B. Be publically advertised
 - C. Help guide management towards effective decisions
 - D. **All of the above**
99. The four types of activity dependencies are most visible in which of the following network techniques.
- A. Activity-on-arrow (AOA).
 - B. PERT/CPM
 - C. **Microsoft Project**
 - D. Workflow diagramming method (WDM)
100. Upon completion of project Scope Definition you will have defined :
- A. Project constraint, project objectives, and a prioritized list of risks
 - B. **Project objectives and product acceptance criteria**
 - C. Project boundaries, a project scope description and initial defined risks
 - D. Project scope statement, project cost requirements and a project team list

101. Freezing the project plan for future control analysis is called as
 A. CP B. Buffer control C. **Baselining** D. Status reporting

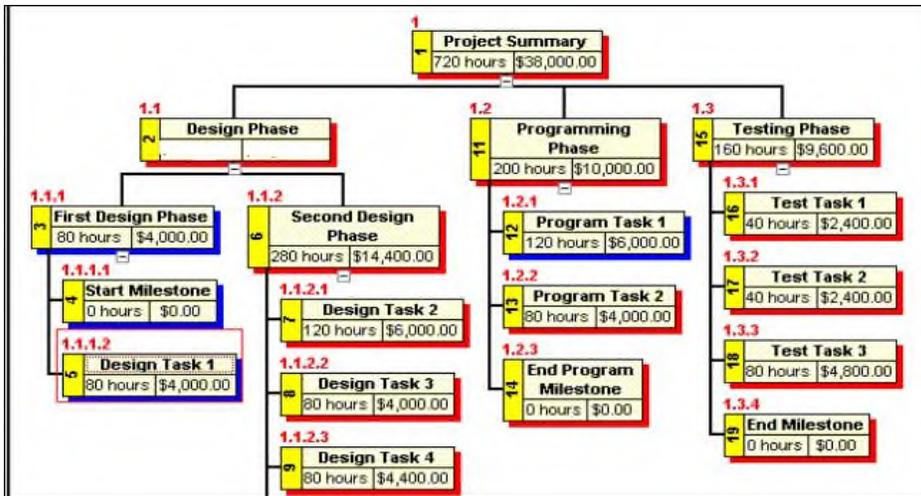
102. The figure shown below is an example of a(n)
 A. PERT B. WBS C. **Gantt Chart** D. AON



103. Which of the following boxes is not a Work Package
 A. 2.2.1 B. 3.2.1 C. **2.0** D.3.2.3



104. In the WBS given below, what will be the duration and budget values for 1.1 Design Phase
 A. 160 hours, \$ 8,000.00
 B. 720 hours, \$ 36,800.00
 C. **360 hours, \$18,400.00**
 D. 560 hours, \$ 28,800.00



120. What is the MS Project tool used to format the Gantt chart bar styles [B]
- A. Network diagram
 - B. Gantt chart wizard**
 - C. Display options
 - D. Progress lines
121. In MSP, task indent and outdent is used to align the tasks according to [C]
- A. Resource allocations
 - B. Task mode
 - C. WBS ID**
 - D. Predecessors
122. The default view of the MS project timeline is to help you view the [C]
- A. Task sheet
 - B. Resource sheet
 - C. Gantt chart**
 - D. Network diagram
123. Which is the most stable and understandable indicator of the project performance? [A]
- A. CPI**
 - B. VAC
 - C. CV
 - D. SPI
124. What type of MSP tasks have start and finish values calculated by the software based on dependencies, constraints, calendars and other factors. [B]
- A. Level of effort
 - B. Automatically scheduled**
 - C. Manually scheduled
 - D. Change requests WPs
125. What is the traditional EV notation for PV? [B]
- A. BCWP
 - B. BCWS**

- C. ACWP
- D. TCPI

126. What parameter indicates forecast project cost?

- A. BAC [C]
- B. EAC
- C. VAC**
- D. ETC

127. What EV parameter indicates operational project cost efficiency required to complete the project on budget?

- A. CPI [D]
- B. ACWP
- C. SPI
- D. TCPI**

128. In MSP summary task plan duration value is

- A. Calculated from baseline duration [C]
- B. Entered manually
- C. Calculated from its sub-tasks**
- D. Calculated from resource sheet

129. Which EV parameter defines the projected project cost?

- A. BAC [C]
- B. TCPI
- C. EAC**
- D. VAC

130. In MSP, _____ contains the same value as the duration field at the time the baseline is saved.

- A. Start [D]
- B. Finish
- C. Duration
- D. Baseline duration**

132. One way of resolving contract conflicts is to seek an outside party to help with the resolution. In some cases the contract clause specifies that this function will listen to the arguments and make a binding decision to resolve the issue. This process is called _____. [A]

- A. Arbitration**
- B. Collaborating
- C. Confronting
- D. Legal judgment

133. The legal term given for not completing a job, not paying in full or on time, failure to deliver all the goods, substituting inferior or significantly different goods, not providing a bond when required, being late without excuse, or any act which shows the party will not complete the work is

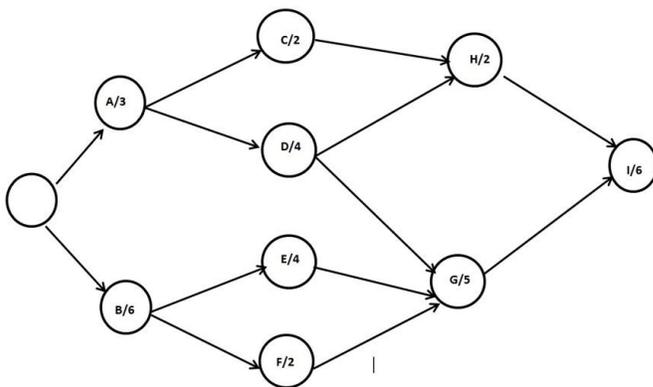
- A. Arbitration [C]

- B. Liquidation damage
- C. Breach of contract**
- D. Force Majeure

134. Authority is

[A]

- A. Permission, a right coupled with the power to do an act, or order others to act.**
- B. The act of transferring an interest in property or some right to another.
- C. Intangible rights protecting the products of human intelligence and creation, such as copyrightable works, patented inventions, Trademarks, and trade secrets.
- D. Legal title coupled with exclusive legal right to possession.



142. Find the critical path from the above network diagram:

[D]

- A. B-E-G-H-I
- B. A-D-G-I
- C. A-C-H-I
- D. B-E-G-I**

143. What is the duration of the Critical path in the above network diagram

[B]

- A. 15
- B. 21**
- C. 22
- D. 23

144. What is the slack time for activity F?

[A]

- A. 2**
- B. 4
- C. 0
- D. 5

145. What is the slack time on activity G?

[B]

- A. 1
- B. 0**
- C. 4

D. 2

146. If you were to crash the activity G by 2 days, will the critical path change?

- A. **No** [A]
- B. Yes
- C. There will be 2 critical paths
- D. The network would become invalid

147. You've been hired by a large consulting firm to lead an accounting project. You determine the needs of the project and divide the work up into work packages so that you can show how all of it fits into categories. What are you creating?

- A. A WBS** [A]
- B. A schedule
- C. A Project Scope Statement
- D. A contract

148. The project team is in the process of setting expectations with the stakeholders on the project. Which of the following best describes a stakeholder?

- A. A team member [D]
- B. The project manager
- C. Someone who works in an area impacted by the work of the project
- D. All the answers**

150. Which of the following best describes lag?

- A. Slack [B]
- B. A delay inserted between activities**
- C. Float
- D. The amount of time an activity can be delayed without delaying the project finish date.

Part II. MSP Interpretation [5 points each]

Use the attached MSP handout to answer the questions in this section (5 points each)

1. What are the EV and PV parameter values for this project?

EV= \$705,164 PV= \$1,168,371

2. Calculate the ETC of this project. Show your calculations.

ETC= \$1,791,935 Calculations: \$2,616,770 - \$804,835

3. When is this project scheduled to complete?

Planned Completion: 12/31

4. When would the task 1.3.2 end?

1.3.2 4/11

5. Calculate the EV SV task 1.2. Show your calculations for this parameter.

SV= \$(113,356) Calculations: \$163,044 - \$276,400

6. Calculate the EV CV for the project. Show your calculations for this parameter.

CV= \$(119,671) Calculations: \$705,164 - \$824,835

7. When would task 1.4.2 start?

1.4.2 9/2 or 9/3 (starts after 1.3.7)

8. Why is 1.2 only 82% complete? Explain.

1.2.7 and 1.2.8 are not yet finished in this summary group

9. How much is the project anticipated to overrun in days (according to the plan)? Show your calculations for this.

23 days days Calculation: 543 - 520

10. How is the Actual Cost column Calculated or produced in this example?

Effort driven—best example is 1.2.2. The task overran by 50% and the cost computed was the same—i.e., effort driven
