Excercise

Bài 1

Exercise Calculate the expected activity duration using triangular distribution. It is best to calculate to three decimal places. All estimates are in hours.

Activity	P	M	O	Expected Activity Duration (Triangular Distribution)
A	47	27	14	
B	89	60	41	
C	48	44	39	
D	42	37	29	

Bài 2

Exercise Calculate the expected activity duration using beta distribution. Calculate to three decimal places. All estimates are in hours.

Activity	P	M	O	Expected Activity Duration (Beta Distribution)
A	47	27	14	
B	89	60	41	
C	48	44	39	
D	42	37	29	

Bài 3:

Test yourself. Draw anetwork diagram, and then answer the folowing questions.

- You are the project manager for anew project and have figured out the folowing dependencies: Activity 1 can start immediately and has an estimated duration of 3 weeks.
- Activity 2 can start after activity 1 is completed and has an estimated duration of 3weeks
- Activity 3 can start after activity 1 is completed and has an estimated duration of 6 weeks.
- Activity 4 can start after activity 2 is completed andhas an estimated durationof 8 weeks.
- Activity 5 can start after activity 4 is completed and after activity 3 is completed. This activity takes 4 weeks.

1. What is the duration of the critical path?
2. What is the float of activity 3?
3. What is the float of activity2?
4. What is the float of the path with the longest float?
5. The resource working on activity 3is replaced with another resource who is less experienced. The activity will now take 10weeks. How will this affect theproject?

6. After some arguing between stakeholders, a new activity 6 is added to the project. It wil take 11 weeks ot complete and must be completed before activity 5 and after activity 3.Management is concerned that adding the activity wil add 11 weeks to the project. Another stakeholder argues the time will be less than 11 weeks. Who is correct? Use the original information (without the change to activity 3 listed in the previous question) to answer this question.
7. Based on the information ni question 6, howmuch longer wil the project take?

Bài 4. Use the data in this table to answer the questions that follow.

Activity	Preceding Activity	Estimate in Months
Start		0
D	Start	4
A	Start	6
F	D, A	7
E	D	8
G	F, E	5
B	F	5
H	G	7
C	H	8
End	C, B	0

1. What is the duration of the critical path?
2. What is the float of activity B?
3. What is the float of activity E?
4. What is the float of activity D?
5. To shorten the length of the project, the sponsor has offered to remove the work of activity E from the project, making activity D the predecessor ot activities G and F. What wil be the effect?

Some quiz:

1. A project manager is informed midway through project planning that she was given inaccurate data regarding new regulations affecting the required end date of her project. She may need to make a few adjustments, but she thinks she can still manage the project to complete it before the regulations take effect. She confirms this by analyzing the sequence of activities with the least amount of scheduling flexibility. What technique is she using?
   A. Critical path method
   B. Flowchart
   C. Precedence diagramming
   D. Work breakdown structure

2. A design engineer is helping to ensure that the dependencies within her area of expertise are properly defined on the project. The design of several deliverables must be complete before manufacturing can begin. This is an example of what type of dependency?
   A. Discretionary dependency
   B. External dependency
   C. Mandatory dependency
   D. Scope dependency

3. Your sponsor and stakeholders have made it clear they wish to be kept informed on the project status. There are many aspects of the project on which you will report, and you want to choose the most appropriate tool to use in each case. Which of the following are generally illustrated better by bar charts than network diagrams?
   A. Logical relationships
   B. Critical paths
   C. Resource trade-offs
   D. Progress or status

6. A project manager is new to the company but has 10 years of project management experience. She is given a medium-sized project and is asked to plan so it is finished as quickly as possible because the company has a large list of projects to complete in the coming year. She will be given another project to manage as soon as she has this one baselined. She needs to report on the longest time the project will take. Which of the following is the best project management tool to use to determine this?
   A. Work breakdown structure
   B. Network diagram
   C. Bar chart
   D. Project charter

7. Which of the following is correct?
   A. The critical path helps prove how long the project will take.
   B. There can be only one critical path.
   C. The network diagram will change every time the end date changes.
   D. A project can never have negative float.