Riyan Rattan

Assignment 4 Word Answers for Chapter 6 Exercises 1 and 2

6A:

IV. Use Word to write a few paragraphs explaining what the network diagram and schedule table show about Project X's schedule. Save the file as your last name – Answers.docx, e.g., Hashemi – Answers.docx.

A network diagram is a graphical representation of a project and is composed of a series of connected arrows and boxes to describe the inter-relationship between the activities involved in the project. Boxes or nodes represent the activity description, and arrows show the relationship among the activities.

A Schedule Network Analysis is a graphical representation of a schedule showing each sequenced activity and the time it takes to finish each one. It's used to identify early and late start dates, as well as early and late finish dates, for the uncompleted portions of project schedule activities .

Since the critical path is the longest path through the network diagram, we could find the critical path for Project X from the network diagram. When we know the critical path, we could make clear which activities determine the earliest completion of the project X. It means when we make schedule, we should pay attention to those critical activities to shorten the schedule. We could allocate more resources to those activities to shorten the project schedule. We also could reduce some critical activities' duration to shorten the project schedule.

From the schedule table, we could easily find early and late start and finish dates and free and total slack amounts for activities. When we know the number of float or slack, we could determine whether this schedule is flexible and its flexible grade. Then we could use this as the basis to negotiate the project schedule.

So, both of network diagram and schedule table are useful tools to help set down and adjust the Project X's schedule.

6B:

II. Identify all of the paths on the network diagram and note how long they are, using Figure 6-8 as a guide for how to represent each path.

Path	Activity Nodes		Duration		Days
A-B-E-H-K	(1-2-3-6-8-9)	=	2 + 2 + 2 + 2 + 2	=	10 days
A-B-E-I-J-K	(1-2-3-6-7-8-9)	=	2 + 2 + 2 + 5 + 1 + 2	=	14 days
A-C-F-H-K	(1-2-4-6-8-9)	=	2 + 3 + 3 + 2 + 2	=	12 days
A-C-F-I-J-K	(1-2-4-6-7-8-9)	=	2 + 3 + 3 + 5 + 1 + 2	=	16 days
A-D-G-J-K	(1-2-5-7-8-9)	=	2 + 4 + 6 + 1 + 2	=	15 days

6C:

Use the answers Word file from step A.IV (your last name – Answers.docx) for yours answers to the following questions. Insert your full name for page heading.

c. What is the critical (longest) path for this project and how long is it?

A-C-F-I-J-K = 2+3+3+5+1+2 = 16 Days long

d. What is the shortest possible time needed to complete this project?

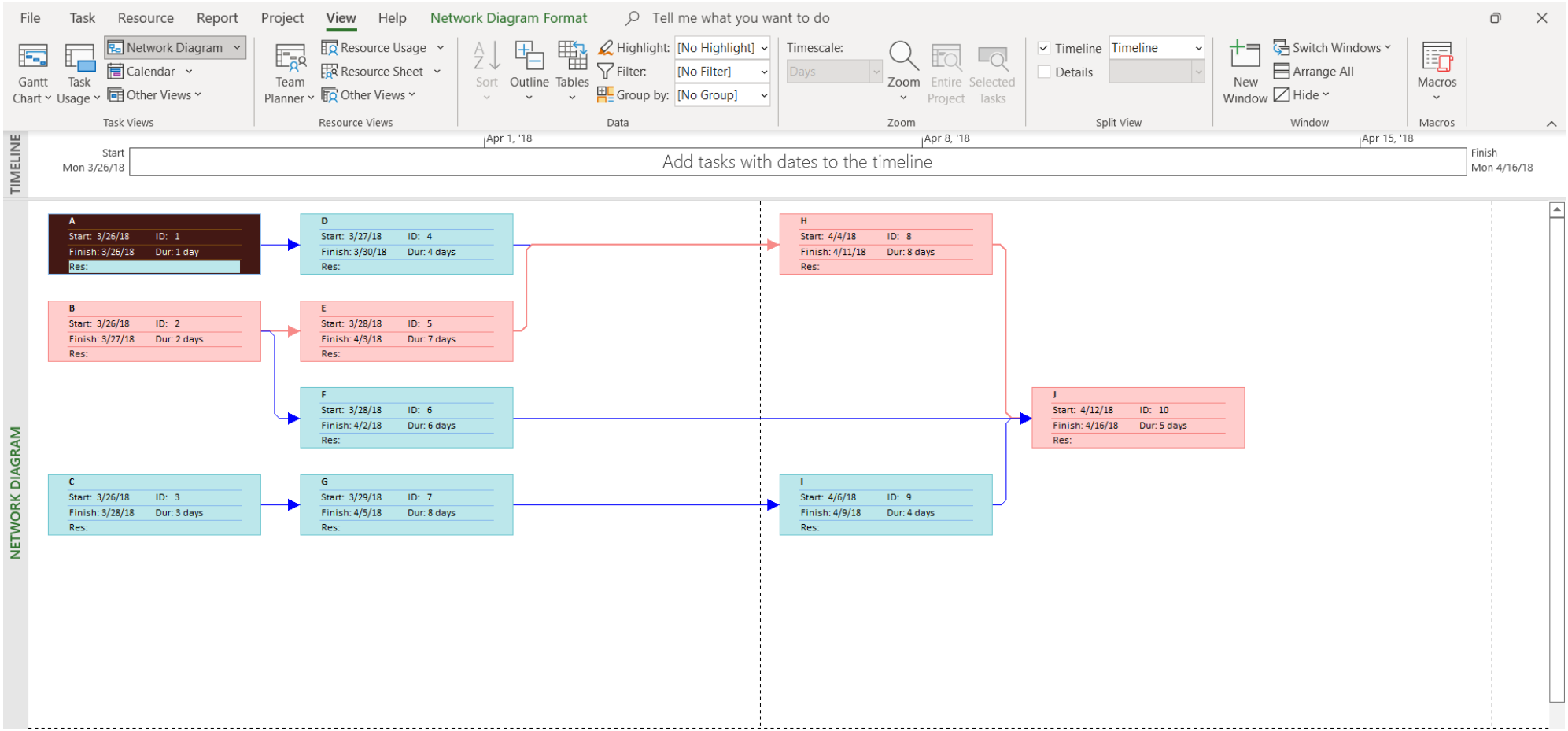
The shortest possible time required to complete the project is the time required by the critical path, which is 16 days.

Otherwise, if asking for shortest path overall, which is 10 days long:

A-B-E-H-K = 2+2+2+2+2 = 10 Days

6A II:

Rattan – Network Diag.PDF

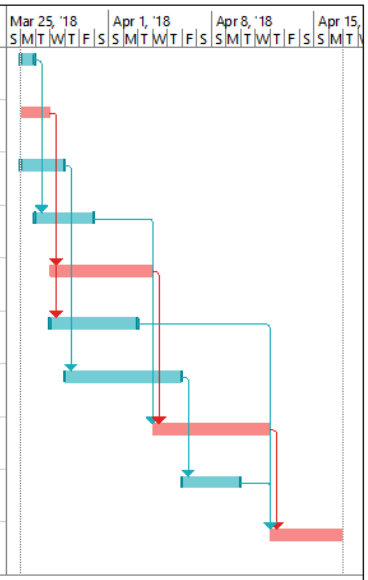


6A II:

Rattan – Gannt Chart.PDF

One Page Setup:

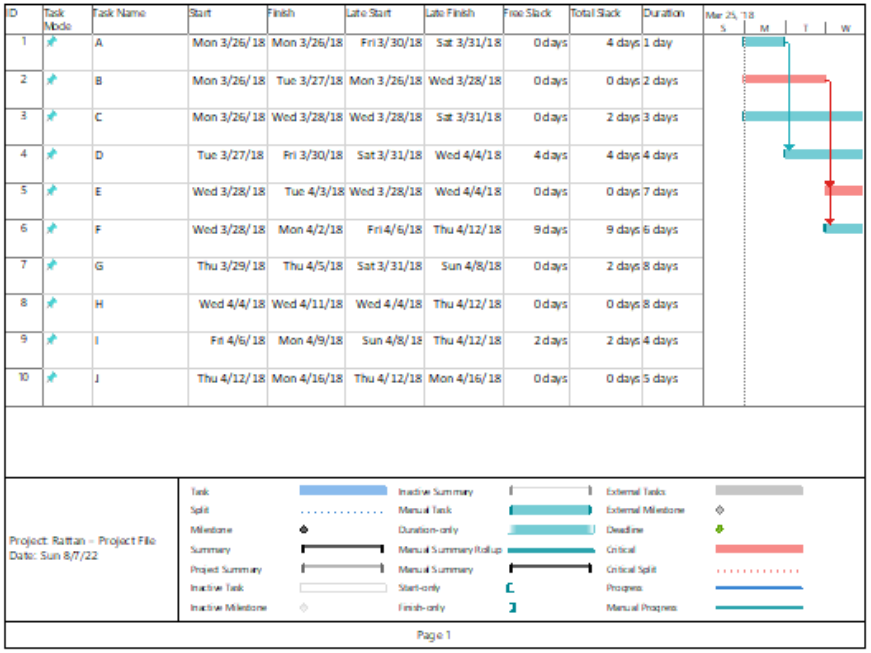
ID	Task Mode	Task Name	Start	Finish	Late Start	Late Finish	Free Slack	Total Slack	Duration
1		A	Mon 3/26/18	Mon 3/26/18	Fri 3/30/18	Sat 3/31/18	0 days	4 days	1 day
2		B	Mon 3/26/18	Tue 3/27/18	Mon 3/26/18	Wed 3/28/18	0 days	0 days	2 days
3		C	Mon 3/26/18	Wed 3/28/18	Wed 3/28/18	Sat 3/31/18	0 days	2 days	3 days
4		D	Tue 3/27/18	Fri 3/30/18	Sat 3/31/18	Wed 4/4/18	4 days	4 days	4 days
5		E	Wed 3/28/18	Tue 4/3/18	Wed 3/28/18	Wed 4/4/18	0 days	0 days	7 days
6		F	Wed 3/28/18	Mon 4/2/18	Fri 4/6/18	Thu 4/12/18	9 days	9 days	6 days
7		G	Thu 3/29/18	Thu 4/5/18	Sat 3/31/18	Sun 4/8/18	0 days	2 days	8 days
8		H	Wed 4/4/18	Wed 4/11/18	Wed 4/4/18	Thu 4/12/18	0 days	0 days	8 days
9		I	Fri 4/6/18	Mon 4/9/18	Sun 4/8/18	Thu 4/12/18	2 days	2 days	4 days
10		J	Thu 4/12/18	Mon 4/16/18	Thu 4/12/18	Mon 4/16/18	0 days	0 days	5 days



Project: Rattan – Project File
Date: Sun 8/7/22

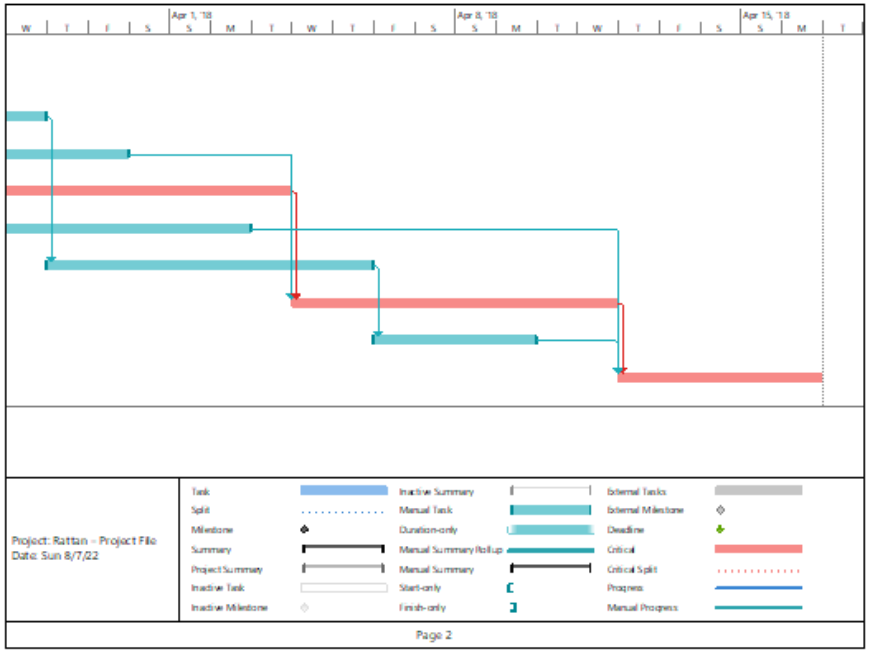
Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration-only	Deadline
Summary	Manual Summary Rollup	Critical
Project Summary	Manual Summary	Critical Split
Inactive Task	Start-only	Progress
Inactive Milestone	Finish-only	Manual Progress

OR (two-page setup):



ID	Task Mode	Task Name	Start	Finish	Late Start	Late Finish	Free Slack	Total Slack	Duration
1		A	Mon 3/26/18	Mon 3/26/18	Fri 3/30/18	Sat 3/31/18	0 days	4 days	1 day
2		B	Mon 3/26/18	Tue 3/27/18	Mon 3/26/18	Wed 3/28/18	0 days	0 days	2 days
3		C	Mon 3/26/18	Wed 3/28/18	Wed 3/28/18	Sat 3/31/18	0 days	2 days	3 days
4		D	Tue 3/27/18	Fri 3/30/18	Sat 3/31/18	Wed 4/4/18	4 days	4 days	4 days
5		E	Wed 3/28/18	Tue 4/3/18	Wed 3/28/18	Wed 4/4/18	0 days	0 days	7 days
6		F	Wed 3/28/18	Mon 4/2/18	Fri 4/6/18	Thu 4/12/18	9 days	9 days	6 days
7		G	Thu 3/29/18	Thu 4/5/18	Sat 3/31/18	Sun 4/8/18	0 days	2 days	8 days
8		H	Wed 4/4/18	Wed 4/11/18	Wed 4/4/18	Thu 4/12/18	0 days	0 days	8 days
9		I	Fri 4/6/18	Mon 4/9/18	Sun 4/8/18	Thu 4/12/18	2 days	2 days	4 days
10		J	Thu 4/12/18	Mon 4/16/18	Thu 4/12/18	Mon 4/16/18	0 days	0 days	5 days

Page 1

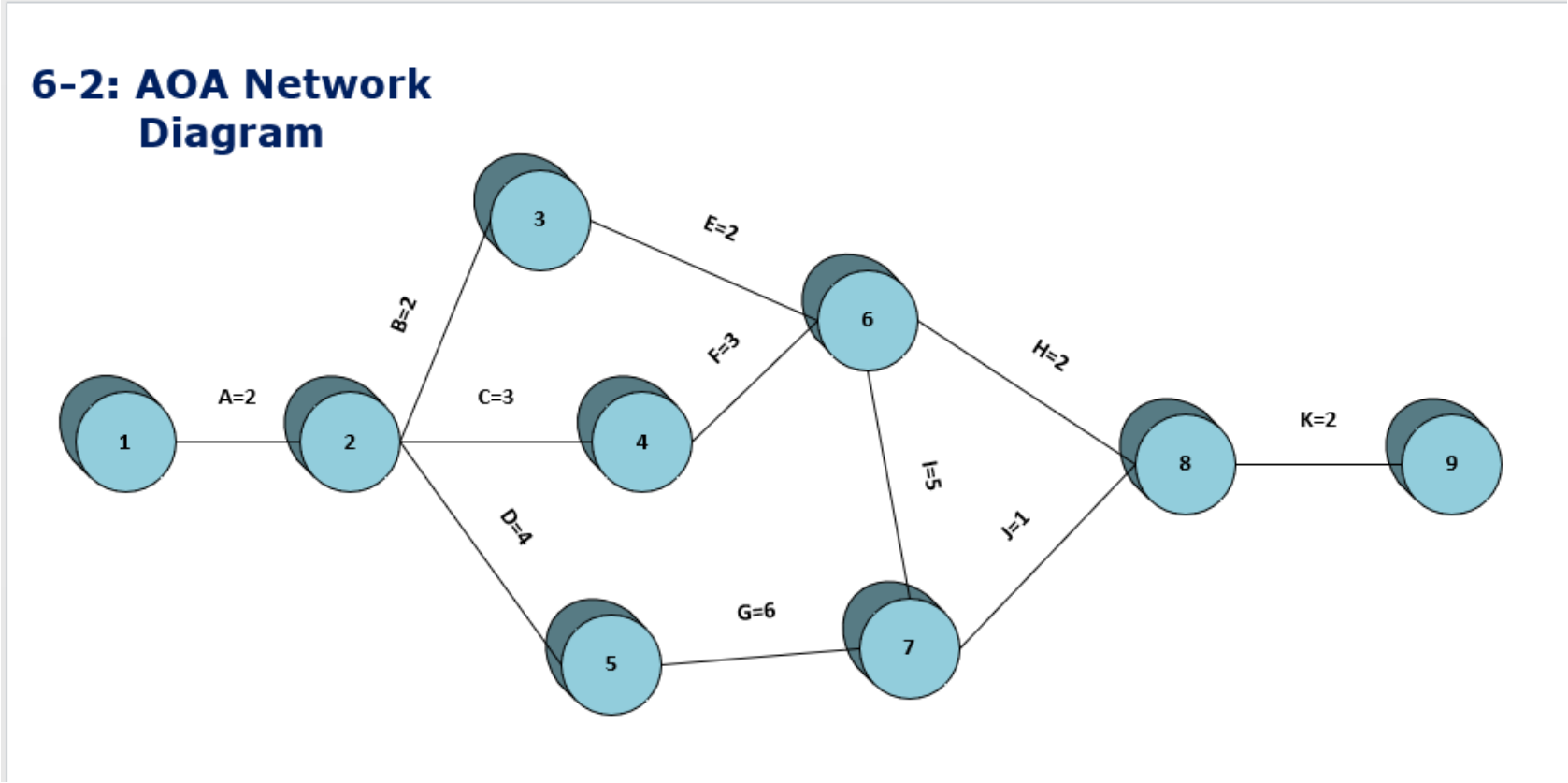


Page 2

6A III:

Rattan – Table 6-1.PDF

Task Name	Start	Finish	Late Start	Late Finish	Free Slack	Total Slack
A	Mon 3/26/18	Mon 3/26/18	Fri 3/30/18	Sat 3/31/18	0 days	4 days
B	Mon 3/26/18	Tue 3/27/18	Mon 3/26/18	Wed 3/28/18	0 days	0 days
C	Mon 3/26/18	Wed 3/28/18	Wed 3/28/18	Sat 3/31/18	0 days	2 days
D	Tue 3/27/18	Fri 3/30/18	Sat 3/31/18	Wed 4/4/18	4 days	4 days
E	Wed 3/28/18	Tue 4/3/18	Wed 3/28/18	Wed 4/4/18	0 days	0 days
F	Wed 3/28/18	Mon 4/2/18	Fri 4/6/18	Thu 4/12/18	9 days	9 days
G	Thu 3/29/18	Thu 4/5/18	Sat 3/31/18	Sun 4/8/18	0 days	2 days
H	Wed 4/4/18	Wed 4/11/18	Wed 4/4/18	Thu 4/12/18	0 days	0 days
I	Fri 4/6/18	Mon 4/9/18	Sun 4/8/18	Thu 4/12/18	2 days	2 days
J	Thu 4/12/18	Mon 4/16/18	Thu 4/12/18	Mon 4/16/18	0 days	0 days

6B IV:

Rattan – AOA.PDF