

Project Planning & Control

Lesson 6

Resource Leveling – Example Network

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Professor

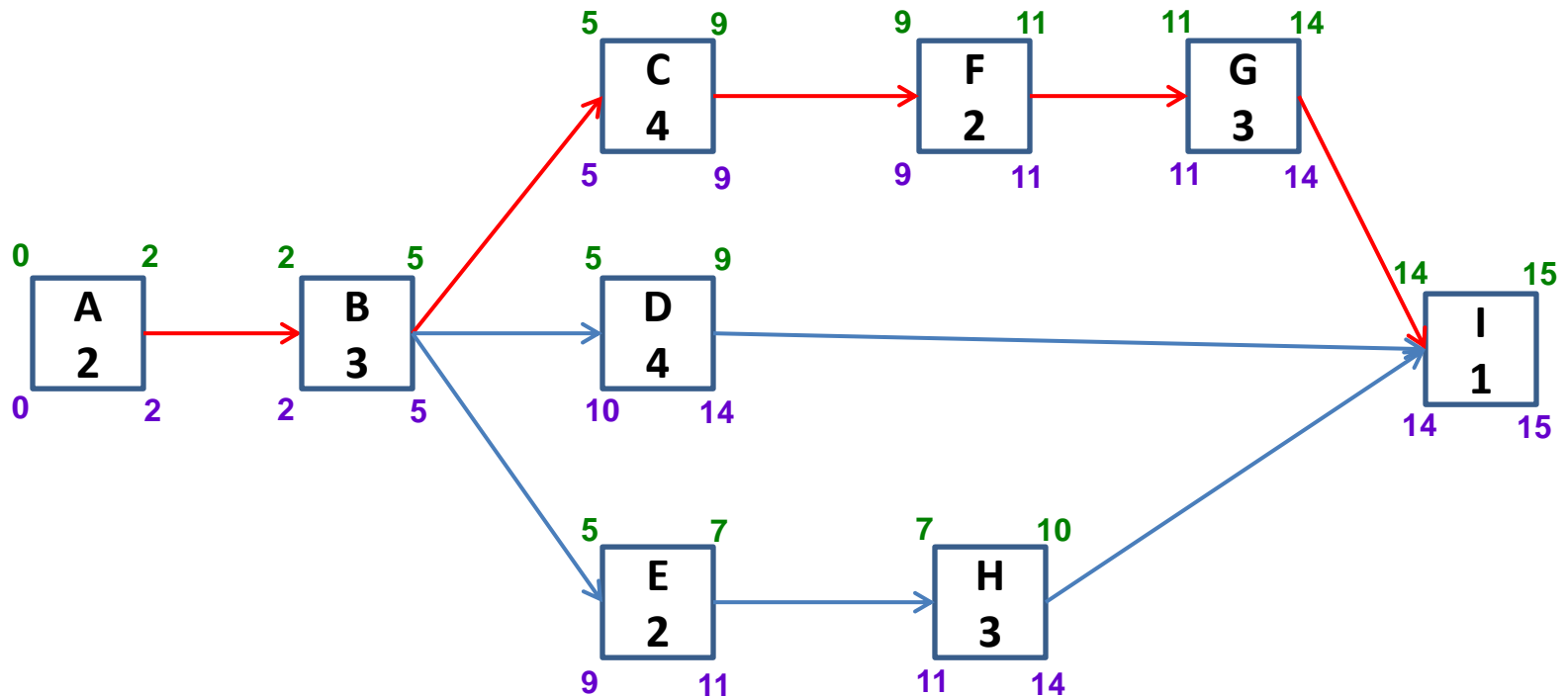
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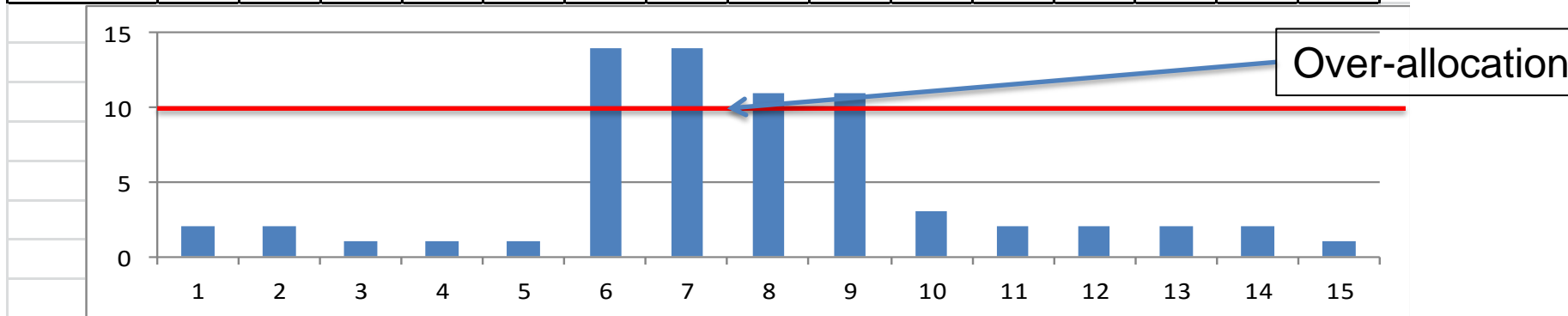


Example Network



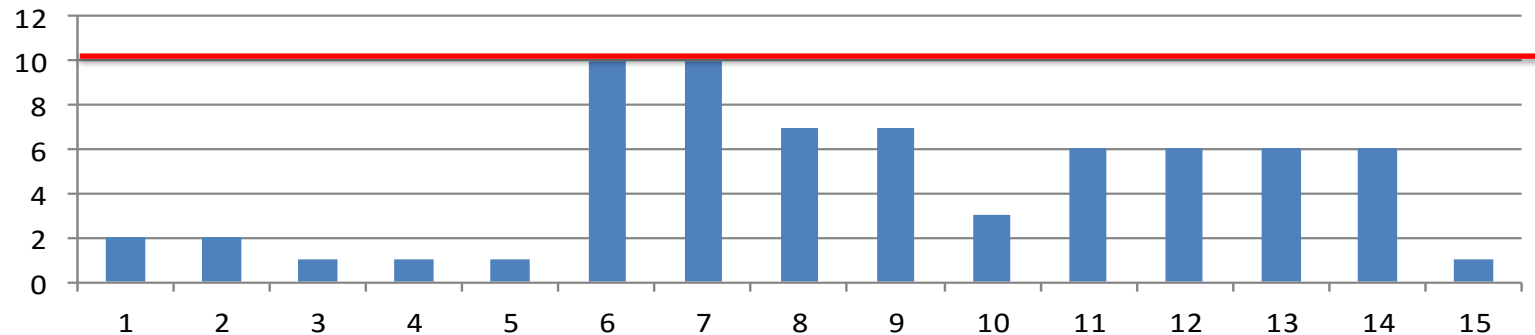
Early Start Schedule

Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	2	2													
B			1	1	1										
C						6	6	6	6	←-----→					
D						4	4	4	4						
E						4	4								
F										2	2				
G												2	2	2	
H								1	1	1	←-----→				
I															1
Total	2	2	1	1	1	14	14	11	11	3	2	2	2	2	1
Cum	2	4	5	6	7	21	35	46	57	60	62	64	66	68	69



Over-allocation- Resolved

Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	2	2									<i>Float of D has been used to resolve Over-allocation</i>				
B			1	1	1										
C						6	6	6	6						
D						----->					4	4	4	4	
E						4	4								
F										2	2				
G												2	2	2	
H								1	1	1					
I															1
Total	2	2	1	1	1	10	10	7	7	3	6	6	6	6	1
Cum	2	4	5	6	7	17	27	34	41	44	50	56	62	68	69



Is Resource Leveled ?

Alternatives

A	2	2															
B			1	1	1												
C						6	6	6	6								
D							4	4	4	4							
E						4	4										
F										2	2						
G												2	2	2			
H							1	1	1								
I																1	
	2	2	1	1	1	10	14	11	11	7	2	2	2	2	2	1	

A	2	2															
B			1	1	1												
C						6	6	6	6								
D								4	4	4	4						
E						4	4										
F										2	2						
G												2	2	2			
H							1	1	1								
I																1	
	2	2	1	1	1	10	10	11	11	7	6	2	2	2	2	1	

A	2	2															
B			1	1	1												
C						6	6	6	6								
D								4	4	4	4						
E						4	4										
F										2	2						
G												2	2	2			
H							1	1	1								
I																1	
	2	2	1	1	1	10	10	7	11	7	6	6	2	2	1		

A	2	2															
B			1	1	1												
C						6	6	6	6								
D											4	4	4	4			
E						4	4										
F											2	2					
G													2	2	2		
H							1	1	1								
I																1	
	2	2	1	1	1	10	10	7	7	7	6	6	6	2	1		

A	2	2															
B			1	1	1												
C						6	6	6	6								
D											4	4	4	4			
E						4	4										
F											2	2					
G													2	2	2		
H							1	1	1								
I																1	
	2	2	1	1	1	10	10	7	7	3	6	6	6	6	1		

D- 5 shifts

H-4 shifts

E- 1to 3 shifts based on H

A	2	2															
B			1	1	1												
C						6	6	6	6								
D							4	4	4	4							
E						4	4										
F										2	2						
G											2	2	2				
H									1	1	1						
I																1	
	2	2	1	1	1	10	14	10	11	7	3	2	2	2	2	1	

A	2	2															
B			1	1	1												
C						6	6	6	6								
D											4	4	4	4			
E						4	4										
F											2	2					
G													2	2	2		
H									1	1	1						
I																1	
	2	2	1	1	1	10	10	6	7	7	7	6	6	2	1		

A	2	2															
B			1	1	1												
C						6	6	6	6								
D								4	4	4	4						
E						4	4										
F										2	2						
G											2	2	2				
H									1	1	1						
I																1	
	2	2	1	1	1	10	10	10	11	7	7	2	2	2	2	1	

A	2	2															
B			1	1	1												
C						6	6	6	6								
D											4	4	4	4			
E						4	4										
F											2	2					
G													2	2	2		
H									1	1	1						
I																1	
	2	2	1	1	1	10	10	6	7	3	7	6	6	6	1		

A	2	2															
B			1	1	1												
C						6	6	6	6								
D								4	4	4	4						
E						4	4										
F										2	2						
G											2	2	2				
H									1	1	1						
I																1	
	2	2	1	1	1	10	10	6	11	7	7	6	2	2	1		

..... etc

**50 Alternatives
based on moving D,E,H**