

**CENG 6101**  
**Lab Assignment**  
**Using MS Project 2010**

For the activities given below, create a project schedule using MS Project 2010 and answer the following questions:

Activity ID	Activity Name	Duration	Predecessor			Resources
			Activity ID	Relationship	Lead/Lag	
<b>RD-Road Work</b>						
RD10	Bulk excavation	7				Dozer, Foreman
RD20	Sub Base for Road	4	RD10	FS	0	Dozer, Gravel, Foreman
RD30	Base-course for Road	4	RD20	SS	2	Grader, Lime, Foreman
RD40	Prime Coat for Road	1	RD30	FS	0	Spreader, Bitumen, Foreman
RD50	50 mm Asphalt for Road Layer I	2	RD40	FS	0	Paver, AC, Foreman
RD60	50 mm Asphalt for Road Layer II	2	RD50	FS	0	Paver, AC, Foreman
<b>FW-Finishing Works</b>						
FW10	Install Signs	1	RD60	SS	0	Excavator, Signs Foreman
FW20	Pavement Marking	1	RD60	SS	1	Marker-machine, Paint, Foreman
			FW10	FF	0	
<b>LS-Land Scaping</b>						
LS20	Seeding	2	RD60	FS	0	Seeder, Seeds, Foreman
LS10	Sidewalks	4	RD60	FS	0	Concrete-paver, Concrete, Foreman
			LS20	FF	0	
			FW20	FF	0	

1. The completion date of the project is: \_\_\_\_\_
2. Number of critical activities is: \_\_\_\_\_
3. Criticality ratio is defined as the number of critical activities divided by the total number of activities. Accordingly, the criticality ratio for the given exercise is:  
 \_\_\_\_\_

4. Complete the following table:

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float
RD10	Bulk excavation	7					
RD20	Sub Base for Road	4					
RD30	Base-course for Road	4					
RD40	Prime Coat for Road	1					
RD50	50 mm Asphalt for Road Layer I	2					
RD60	50 mm Asphalt for Road Layer II	2					
FW10	Install Signs	1					
FW20	Pavement Marking	1					
LS20	Seeding	4					
LS10	Sidewalks	2					

5. Assuming that earthwork for road will require a duration of 4 days instead of 7 days, then the new completion date for the project is: \_\_\_\_\_
6. The designer decided to change the prime coat material type for the road; accordingly, 3 additional days were consumed in the process of procuring the new prime coat. Assuming all activities prior to that activity progressed as planned (where excavation is 7 days), examine the effect of this delay on the schedule by completing the following table:

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float
RD10	Bulk excavation	7					
RD20	Sub Base for Road	4					
RD30	Base-course for Road	4					
RD40	Prime Coat for Road	1					
RD50	50 mm Asphalt for Road Layer I	2					
RD60	50 mm Asphalt for Road Layer II	2					
FW10	Install Signs	1					
FW20	Pavement Marking	1					
LS20	Seeding	4					
LS10	Sidewalks	2					

7. The new project completion date is: \_\_\_\_\_

Please submit a softcopy of your schedule via e-mail to [abraham.aau@gmail.com](mailto:abraham.aau@gmail.com) with your name and “MS Project Lab” in the subject. Please complete and hand in the hard copy of the lab handout to the School office. The deadline for submitting the lab is **Friday, January 13, 2017 at 5:00pm.**