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ID : 7743
Section : C
Semester : 8th
Exam : Midterm
Subject : Construction Management
Instructor : Engr. Muhammad Zeeshan Ahad

a) Activity list of a two story building

1. Survey
2. Mobilization
3. Grubbing of site
4. Layout and Excavation
5. Foundation And columns
6. Brick masonry Walls
7. Formwork
8. Concreting (beams and Slab)
9. Curing
10. Flooring
11. Wood work

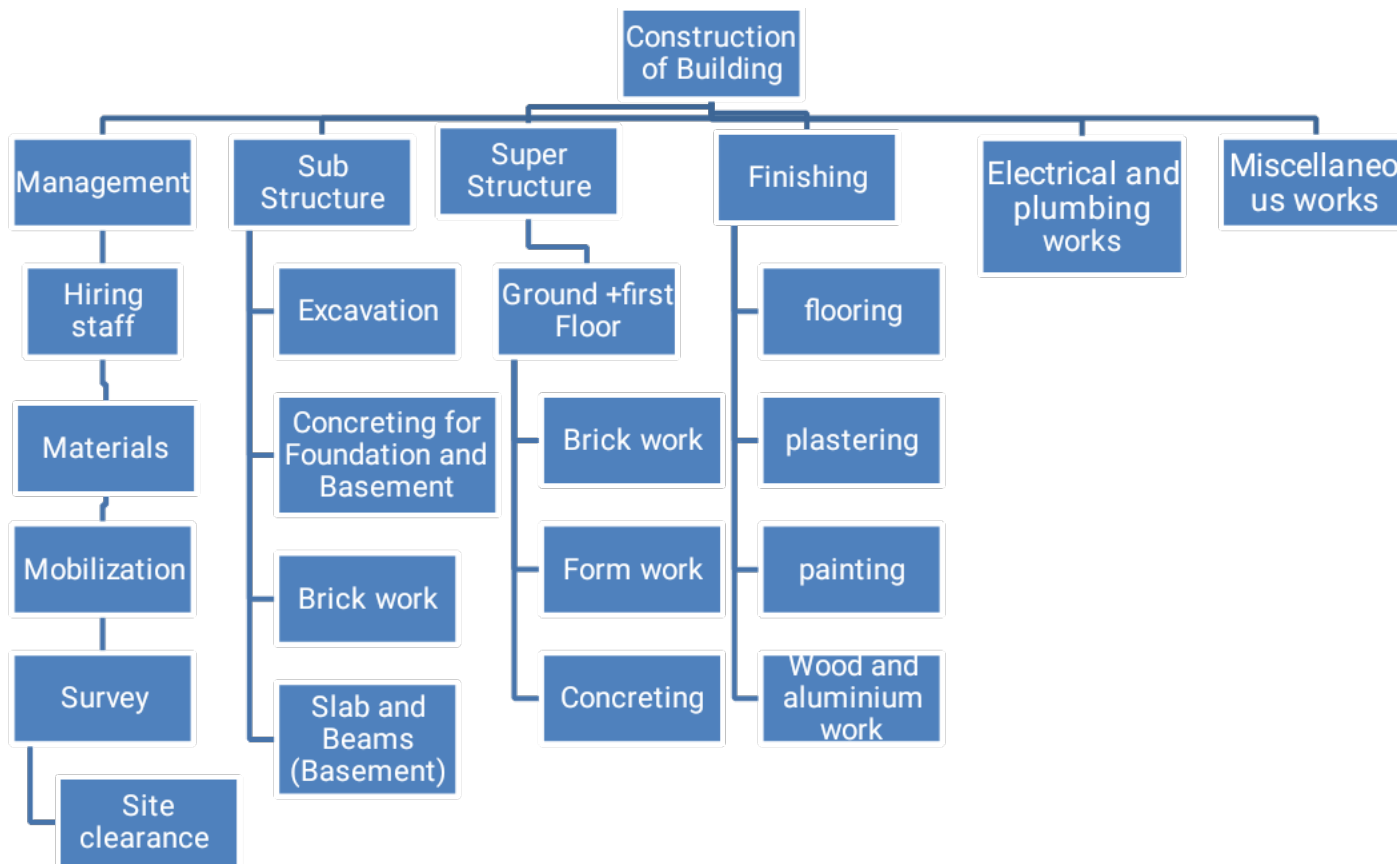
12. Plumbing and sanitary work

13. Electrification

14. Finishing

15. Miscellaneous

Work Breakdown structure of building



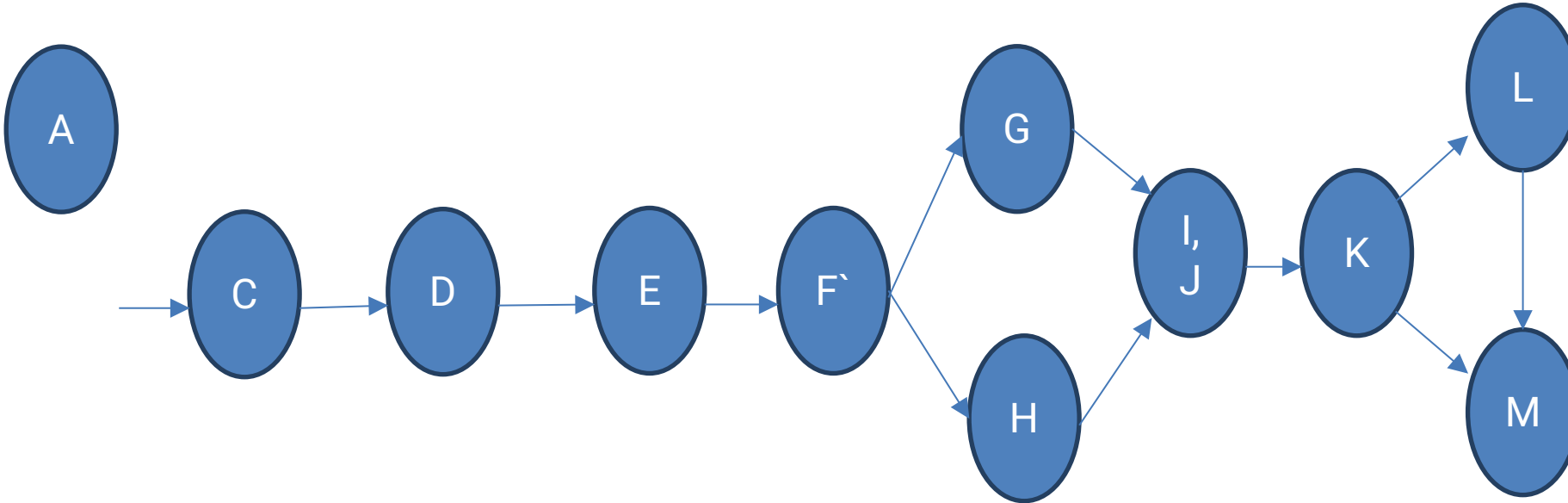
Q.02 timeline of the project separately attached in the excel spread sheet

Q.03 Critical path Method of the project

Activity		Predecessors	Duration in weeks
Survey	A		1
Mobilization	B		1
Grubbing of site	C	A	1
Layout and Excavation	D	C	2
Formwork	E	D	4
Foundation and column	F	E	3
Concreting (beams and Slab)	G	F	3
Brick work	H	F	3
Plumbing and sanitary work	I	G,H	2
Electrification	J	G,H	2
Finishing	K	I,J	3
Flooring	L	k	2

Wood work	M	K,L	3
Miscellaneous	N		3

Precedence Diagram



Path A



There are two paths of our project path A and path B

Path A (ACDEFGIJKLM) having 26 weeks

Path B (ACDEFHIJKM) having 24 weeks

So the critical path of our project is path A which has more time

Q.04 provide maximum time taken by project....

0	A	1	1	C	2	2	D	4	4	E	8	8	F	11	11	G	14	14	I,J	18	18	K	21	21	L	23			
0	1	1	1	1	2	2	2	4	4	4	8	8	3	11	11	3	14	11	3	14	14	4	18	18	3	21	21	2	23
															11	H	14							23	M	26			
															11	3	14							23	3	26			

As according to forward pass and backward pass the maximum time for our project is 26 weeks.

Q.05 provide Slack time for the activities if any....

Slack = late finish – early finish

A = 1 - 1 = 0

C = 2 - 2 = 0

$$D=4-4=0$$

E=8-8=0 and so on all values comes zero so no slack

Slack = late start – early start

$$A= 0-0=0$$

$$C= 1-1=0$$

$$D=2-2=0$$

$$E=4-4=0$$

And so on all values comes zero so no slack.

Q.02 Time line of the building project

Project Name	Project Start	Project Duration	Project End	Name	Hedayat ulah Shah
Construction of 2 Lateral House	20-Apr	221	22-Nov	ID	7743
Activity	Start Date	Duration	End Date		
Initial Design	20-04	2	22-04		
Foundation	22-04	3	25-04		
Structure and columns	25-04	3	28-04		
Structural Design	27-04	2	29-04		
Roof	29-04	1	30-04		
Partitions and plaster	01-05	1	02-05		
Site work	02-05	1	03-05		
Construction and Basement					
Structure and columns	03-05	3	06-05		
Structure and columns	06-05	3	09-05		
Structure	09-05	3	12-05		
Structure 1-2 Foundation column	12-05	7	19-05		
Structure 2-2 Foundation column	19-05	7	26-05		
Structure 3-2 Foundation column	26-05	7	01-06		
Structure 4-2 Foundation column	01-06	7	08-06		
Structure 5-2 Foundation column	08-06	7	15-06		
Structure 6-2 Foundation column	15-06	7	22-06		
Structure 7-2 Foundation column	22-06	7	29-06		
Structure 8-2 Foundation column	29-06	7	06-07		
Structure 9-2 Foundation column	06-07	7	13-07		
Structure 10-2 Foundation column	13-07	7	20-07		
Structure 11-2 Foundation column	20-07	7	27-07		
Structure 12-2 Foundation column	27-07	7	03-08		
Structure 13-2 Foundation column	03-08	7	10-08		
Structure 14-2 Foundation column	10-08	7	17-08		
Structure 15-2 Foundation column	17-08	7	24-08		
Structure 16-2 Foundation column	24-08	7	31-08		
Structure 17-2 Foundation column	31-08	7	07-09		
Structure 18-2 Foundation column	07-09	7	14-09		
Structure 19-2 Foundation column	14-09	7	21-09		
Structure 20-2 Foundation column	21-09	7	28-09		
Structure 21-2 Foundation column	28-09	7	05-10		
Structure 22-2 Foundation column	05-10	7	12-10		
Structure 23-2 Foundation column	12-10	7	19-10		
Structure 24-2 Foundation column	19-10	7	26-10		
Structure 25-2 Foundation column	26-10	7	02-11		
Structure 26-2 Foundation column	02-11	7	09-11		
Structure 27-2 Foundation column	09-11	7	16-11		
Structure 28-2 Foundation column	16-11	7	23-11		
Structure 29-2 Foundation column	23-11	7	30-11		
Structure 30-2 Foundation column	30-11	7	07-12		
Structure 31-2 Foundation column	07-12	7	14-12		
Structure 32-2 Foundation column	14-12	7	21-12		
Structure 33-2 Foundation column	21-12	7	28-12		
Structure 34-2 Foundation column	28-12	7	04-01		
Structure 35-2 Foundation column	04-01	7	11-01		
Structure 36-2 Foundation column	11-01	7	18-01		
Structure 37-2 Foundation column	18-01	7	25-01		
Structure 38-2 Foundation column	25-01	7	01-02		
Structure 39-2 Foundation column	01-02	7	08-02		
Structure 40-2 Foundation column	08-02	7	15-02		
Structure 41-2 Foundation column	15-02	7	22-02		
Structure 42-2 Foundation column	22-02	7	01-03		
Structure 43-2 Foundation column	01-03	7	08-03		
Structure 44-2 Foundation column	08-03	7	15-03		
Structure 45-2 Foundation column	15-03	7	22-03		
Structure 46-2 Foundation column	22-03	7	29-03		
Structure 47-2 Foundation column	29-03	7	05-04		
Structure 48-2 Foundation column	05-04	7	12-04		
Structure 49-2 Foundation column	12-04	7	19-04		
Structure 50-2 Foundation column	19-04	7	26-04		
Structure 51-2 Foundation column	26-04	7	03-05		
Structure 52-2 Foundation column	03-05	7	10-05		
Structure 53-2 Foundation column	10-05	7	17-05		
Structure 54-2 Foundation column	17-05	7	24-05		
Structure 55-2 Foundation column	24-05	7	31-05		
Structure 56-2 Foundation column	31-05	7	07-06		
Structure 57-2 Foundation column	07-06	7	14-06		
Structure 58-2 Foundation column	14-06	7	21-06		
Structure 59-2 Foundation column	21-06	7	28-06		
Structure 60-2 Foundation column	28-06	7	05-07		
Structure 61-2 Foundation column	05-07	7	12-07		
Structure 62-2 Foundation column	12-07	7	19-07		
Structure 63-2 Foundation column	19-07	7	26-07		
Structure 64-2 Foundation column	26-07	7	02-08		
Structure 65-2 Foundation column	02-08	7	09-08		
Structure 66-2 Foundation column	09-08	7	16-08		
Structure 67-2 Foundation column	16-08	7	23-08		
Structure 68-2 Foundation column	23-08	7	30-08		
Structure 69-2 Foundation column	30-08	7	06-09		
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Structure 73-2 Foundation column	27-09	7	04-10		
Structure 74-2 Foundation column	04-10	7	11-10		
Structure 75-2 Foundation column	11-10	7	18-10		
Structure 76-2 Foundation column	18-10	7	25-10		
Structure 77-2 Foundation column	25-10	7	01-11		
Structure 78-2 Foundation column	01-11	7	08-11		
Structure 79-2 Foundation column	08-11	7	15-11		
Structure 80-2 Foundation column	15-11	7	22-11		
Structure 81-2 Foundation column	22-11	7	29-11		
Structure 82-2 Foundation column	29-11	7	06-12		
Structure 83-2 Foundation column	06-12	7	13-12		
Structure 84-2 Foundation column	13-12	7	20-12		
Structure 85-2 Foundation column	20-12	7	27-12		
Structure 86-2 Foundation column	27-12	7	03-01		
Structure 87-2 Foundation column	03-01	7	10-01		
Structure 88-2 Foundation column	10-01	7	17-01		
Structure 89-2 Foundation column	17-01	7	24-01		
Structure 90-2 Foundation column	24-01	7	31-01		
Structure 91-2 Foundation column	31-01	7	07-02		
Structure 92-2 Foundation column	07-02	7	14-02		
Structure 93-2 Foundation column	14-02	7	21-02		
Structure 94-2 Foundation column	21-02	7	28-02		
Structure 95-2 Foundation column	28-02	7	06-03		
Structure 96-2 Foundation column	06-03	7	13-03		
Structure 97-2 Foundation column	13-03	7	20-03		
Structure 98-2 Foundation column	20-03	7	27-03		
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