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Sec: A

Subject: Construction Management

Department: BECC

Semester: 8th

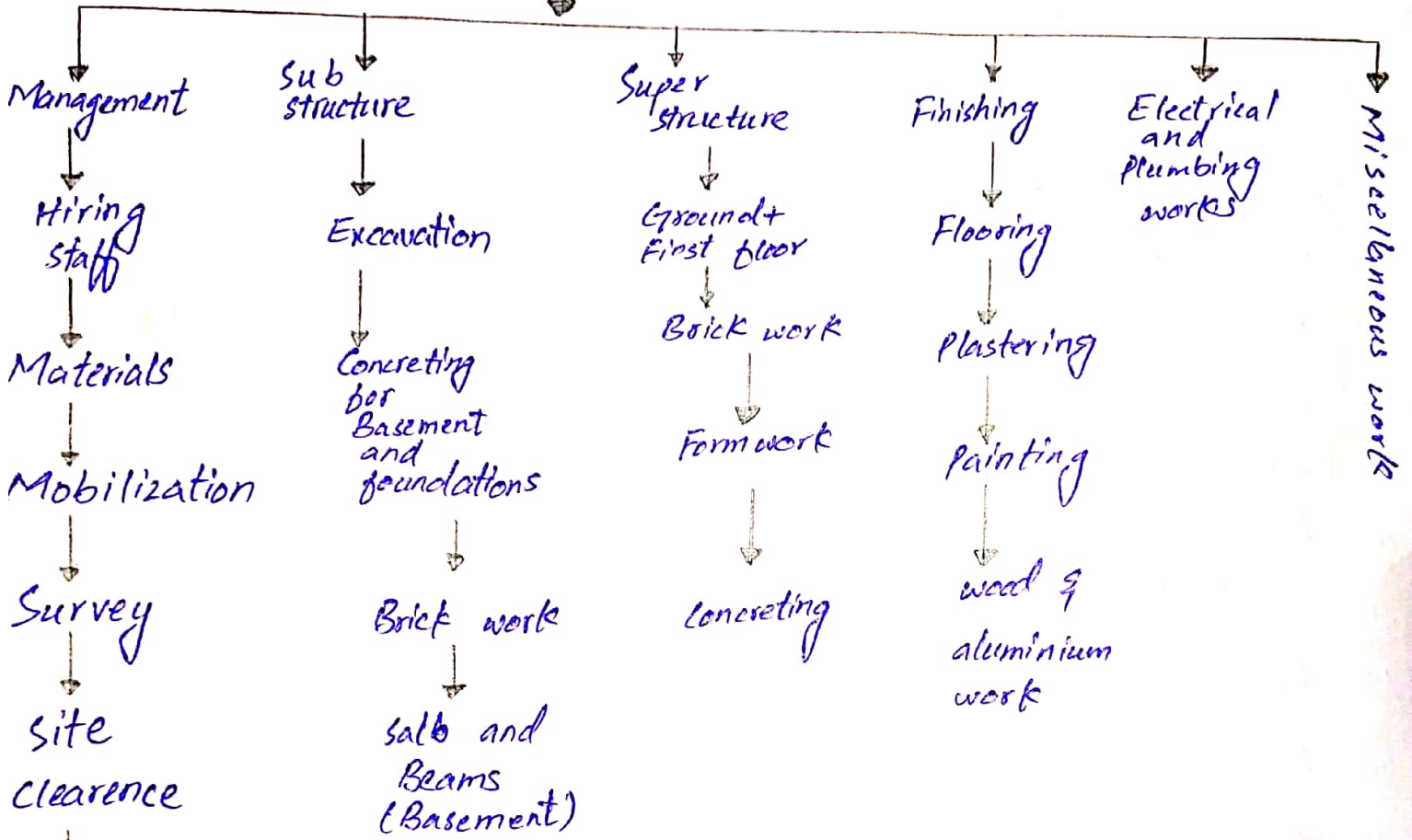
Submitted to: Dr. Zeeshan Ahad

(A). An activity list of a two storied building and a work breakdown structure for the Project. Page: 01

- 1- Survey
- 2- Mobilization
- 3- Grubbing of site
- 4- Layout and excavation
- 5- Foundation & columns.
- 6- Brick Masonary walls.
- 7- Formwork.
8. Concreting (Beam, slab)
- 9- Curing
- 10- Flooring
- 11- wood work.
- 12- Plumbing & sanitary work
- 13- Electrification
- 14- Finishing
- 15- Miscellaneous

work Breakdown structure of Building:-

Construction of Building



(B). Time line for the buildings -

Activity	Start date	duration	End date
Initial survey	20-4-20	2	21-4-20
mobilization	22-4-20	3	24-4-20
clearance and grubbing	25-4-20	2	26-4-20
detailed survey	27-4-20	2	28-4-20
layout	29-4-20	2	31-4-20
excavation	1-5-20	3	3-5-20
leveling and dressing	4-5-20	1	4-5-20
anti termite	5-5-20	1	5-5-20
Foundation & Basement			
lean concrete	6-5-20	1	6-5-20
steel Rebar for column foundation	7-5-20	2	8-5-20
Formwork	9-5-20	3	11-5-20
Concrete 1:2:4 F.C	10-5-20	3	12-5-20
Steel Rebar for column	12-5-20	7	18-5-20
column form work basement	13-5-20	7	19-5-20
column concreting basement	14-5-20	7	20-5-20
formwork for beams and slabs	19-5-20	10	28-5-20
steel cutting and placing	29-5-20	5	2-6-20
electrical pipes distribution	3-6-20	2	4-6-20
concrete 1:2:4 slab, beams	5-6-20	1	5-6-20
form removal	29-6-20	4	2-7-20
brick masonry	4-7-20	30	2-8-20
electrical and plumbing pipes	3-8-20	10	12-8-20
plastering	3-8-20	20	22-8-20
curving	13-5-20	110	30-8-20
ceiling	31-8-20	10	9-9-20
Painting	31-8-20	20	19-9-20
sanitation work	10-9-20	5	14-9-20
floor concreting	20-9-20	7	26-9-20
tiles and marbles	27-9-20	15	11-10-20
wood works	27-9-20	30	26-10-20
electrical wire	27-9-20	5	1-10-20
sanitary fixtures	12-10-20	3	14-10-20
Ground floor			
Layout	6-6-20	1	6-6-20
steel cutting and placing for c.	7-6-20	2	8-6-20
form work	9-6-20	5	13-6-20
concreting for column	10-6-20	6	15-6-20

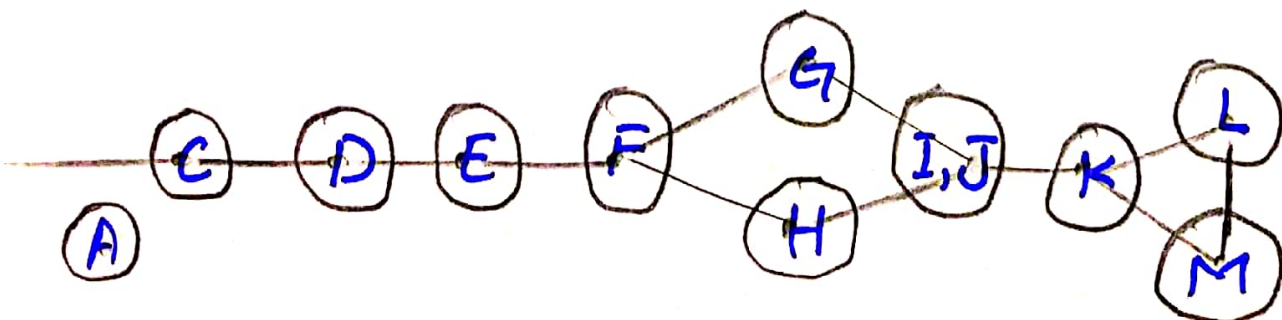
Form work for ^{slab} column & Beams	16-6-20	10	25-6-20
Steel cutting and placing	26-6-20	7	2-7-20
electrical pipes distribution	3-7-20	2	4-7-20
concrete 1:2:4 slab and Beam	5-7-20	1	5-7-20
Form removal	3-8-20	2	4-8-20
brick masonry	5-8-20	15	19-8-20
electrical and plumbing pipes	20-8-20	5	24-8-20
Plastering	25-8-20	15	8-9-20
curing ceiling	10-6-20	90	7-9-20
Painting	8-9-20	5	12-9-20
Sanitation work	13-9-20	15	27-9-20
floor concreting	8-9-20	3	10-9-20
tiles and marbles	11-9-20	3	13-9-20
wood works	14-9-20	15	28-9-20
electrical wire distribution	29-9-20	20	18-10-20
sanitary fixtures	28-9-20	5	2-10-20
	29-9-20	5	3-10-20
First floor.			
Layout	6-7-20	1	6-7-20
steel cutting and placing for column	7-7-20	5	11-7-20
formwork	8-7-20	7	14-7-20
concreting for column	8-7-20	7	14-7-20
form work for beams & slab	15-7-20	10	25-7-20
steel cutting and placing	25-7-20	7	31-7-20
Electrical pipes distribution	1-8-20	2	2-8-20
concrete 1:2:4 slab & Beam	3-8-20	1	3-8-20
form removal	1-9-20	2	2-9-20
brick masonry	3-9-20	10	12-9-20
electrical and plumbing pipes	13-9-20	5	17-9-20
Plastering	18-9-20	15	2-10-20
curing ceiling	8-7-20	90	5-10-20
Painting	3-10-20	7	9-10-20
sanitation	10-10-20	15	24-10-20
floor concreting	3-10-20	5	7-10-20
tiles and marbles	8-10-20	5	12-10-20
wood works	13-10-20	20	1-11-20
electrical wire distribution	2-11-20	20	21-11-20
sanitary fixtures	25-10-20	5	29-10-20
	22-11-20	5	26-11-20
Mumty and terrace			
Layout	4-8-20	1	4-8-20
steel cutting and placing	5-8-20	1	5-8-20
formwork	6-8-20	1	6-8-20
concreting for columns	7-8-20	1	7-8-20
formwork for Beam, slab.	8-8-20	1	8-8-20

electrical pipes	10-8-20	1	10-8-20
steel cutting and placing	9-8-20	1	9-8-20
concrete 1:2:4 slab & Beams	11-8-20	1	11-8-20
form removal	9-9-20	1	9-9-20
Brick masonry	10-9-20	3	12-9-20
electrical and plumbing pipes	13-9-20	1	13-9-20
Plastering	14-9-20	3	16-9-20
Curing	18-8-20	45	26-9-20
Painting	17-9-20	3	19-9-20
Parapet wall	5-8-20	10	14-8-20
bitumen	15-8-20	1	15-8-20
mud on roof	16-8-20	3	18-8-20
chowka placing	19-8-20	5	23-8-20
Exterior works and Boundary			
layout	26-4-20	2	27-4-20
Excavation	28-4-20	7	4-5-20
levelling and dressing	5-5-20	2	6-5-20
anti termite	7-5-20	1	7-5-20
lean concrete	8-5-20	3	10-5-20
brick masonry	11-5-20	14	24-5-20
dpc	25-5-20	2	26-5-20
brick masonry	27-5-20	21	16-6-20
plastering	17-6-20	7	23-6-20
Painting	20-9-20	15	4-10-20

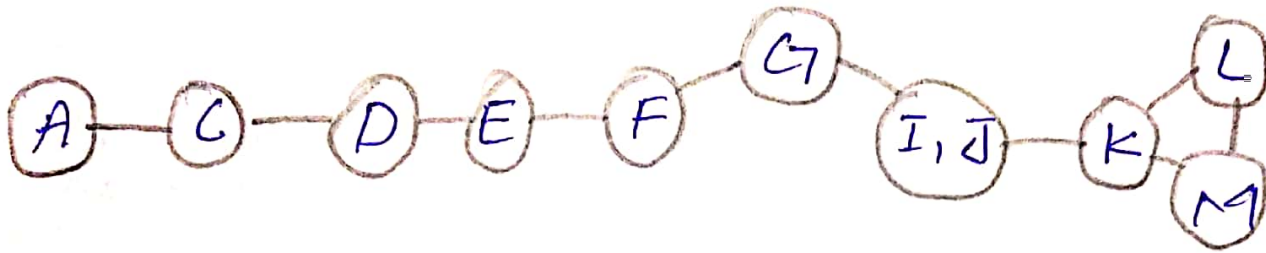
Q. (C). Critical path method of the Project. Page: 06

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 & column	F	E	3
Concreting (beam & slab)	G	F	3
Brick work	H	F	3
Plumbing & Sanitation	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.



Path: B.



There are two paths of our project path A & path B.

Path A (A C D E F ~~G~~ I J K L M) having 26 weeks.

Path B (A C D E F H I J K M) having 24 weeks.

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

Q.(D). Provide max time taken by Project: -

⊛ According to forward pass and backward pass the maximum time for our project is 26 weeks.

Q.(E) 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.