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Section C

Paper Construction Management

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# A) Activity List of a Two Story building

- (1) Survey
- (2) Mobilization
- (3) Grubbing of site
- (4) Lay out and Excavation
- (5) Foundation and Columns
- (6) Brick Masonry walls
- (7) Form work
- (8) Concreting (beam and slab)
- (9) Curing
- (10) Flooring
- (11) wood work
- (12) Plumbing and Sanitary work
- (13) Electrification
- (14) Finishing
- (15) Miscellaneous

1	Project Name	Project Starting Date	Project Duration	Project End Date
2	Construction of 2 Kanal House	20 March	220	27 Oct
3	Activity	Start Date	Duration	End Date
4	Initial Survey	20-Mar	2	22-March
(5)	Mobilization	22-Mar	3	25-March
(6)	Clearance and grubbing	25-Mar	2	27-March
(7)	Detailed Survey	27-Mar	2	29-March
(8)	Lay out	29-Mar	3	01-Apr
(9)	Excavation	01-Apr	3	04-Apr
(10)	Levelling and dressing	4-Apr	1	05-Apr
(11)	Anti termite	05-Apr	1	06-Apr
(12)	Foundation and Basement			
(13)	Lean Concrete	06-Apr	1	07-Apr
(14)	Steel Rebar For Column Foundation	07-Apr	2	09-Apr
(15)	Form work	09-Apr	3	12-Apr
(16)	Concrete 1:2:4 Foundation column	10-Apr	3	13-Apr
(17)	Steel Rebar for column	12-Apr	7	19-Apr

18	Column Formwork basement	13-APR	7	20-APR
19	Column Concreting basement	14-APR	7	21 APR
20	Formwork For beam and slab	19-APR	10	29 APR
21	Steel Cutting and Placing	29 APR	5	03-May
22	Electrical Pipes distribution	3 May	2	5 May
23	Concrete 1:2:4 Slab and beams	5 May	1	6 May
24	Form removal	29 May	5	3 jun
25	brick masonry	04 jun	30	03 july
26	electrical and Plumbing pipes dist	03 july	10	13 july
27	Plastering	03 july	10	23 july
28	Curing	13 APR	110	31 july
29	Ceiling	31 july	10	10 Aug
30	Painting	31 july	20	20 Aug
31	Sanitation work	10 Aug	5	15 Aug
32	Floor Concreting	20 Aug	7	27 Aug
33	tiles and marbles	27 Aug	15	12 Sep
34	wood works	27 Aug	30	27 Sep
35	electrical wire distribution	27 Aug	5	2 Sep
36	Sanitary Fixtures	12 Sep	3	15 Sep
37	<b>Ground Floor</b>			
38	Layout	6 May	1	7 May
39	Steel Cutting and placing for Column	7 May	2	9 May

40	Form work	9 may	5	14 may
41	Concreting for Column	10 may	6	16 may
42	Form work for beams and Slab	16 may	10	26 may
43	Steel Cutting and placing	26 may	7	03 jun
44	Electrical pipes distribution	03 jun	2	5 jun
45	Concrete 1:2:4 Slab and beams	05 june	1	6 jun
46	Form removal	03 july	2	05 july
47	Brick masonry	5 july	15	20 july
48	electrical and Plumbing pipes distribution	20 july	5	25 july
49	Plastering	25 july	15	9 Aug
50	Curing	10 may	90	8 Aug
51	Ceiling	8 Aug	5	13 Aug
52	Painting	13 Aug	15	28 Aug
53	Sanitation work	8 Aug	<del>15</del> 3	11 Aug
54	Floor Concreting	11 Aug	<del>20</del> 3	14 sep
55	tiles and marbles	14 Aug	15	29 Aug
56	wood works	29 Aug	20	19 sep

57	electrical wire distribution	28 Aug	5	03 sep
58	Sanitary Fixtures	29 Aug	5	4 sep
59	<b>First Floor</b>			
60	Layout	6 jun	1	7 jun
61	Steel <del>structure</del> <sup>cuttings</sup> and Placing For Column	7 jun	5	12 jun
62	Formwork	8 jun	7	15 jun
63	Concreting For Column	8 jun	7	15 jun
64	Formwork for beam and Slab	15 jun	10	25 jun
65	Steel Cutting and placing	25 jun	7	1 july
66	Electrical pipes distribution	1 july	2	3 july
67	Concret 1:2:4 Slab and beams	3 july	1	4 july
68	Form removal	1 Aug	2	3 Aug
69	Brick masonry	3 Aug	10	13 Aug
70	electrical and Plumbing pipes distribution	13 Aug	5	18 Aug
71	Plastering	18 Aug	15	3 sep
72	Curing	08 jun	90	06 sep

73	Ceiling	3 Sep	7	10 Sep
74	Painting	10 Sep	15	25 Sep
75	Sanitation work	3 Sep	5	8 Sep
76	Floor Concreting	8 Sep	5	13 Sep
77	tiles and marbles	13 Sep	20	2 Oct
78	wood works	20 Oct	20	20 Oct
79	electrical wire distribution	25 Sep	5	30 Sep
80	Sanitary Fixtures	22 Oct	5	27 Oct
81	<b>Mumty and terrace</b>			
82	Layout	4 July	1	5 July
83	Steel Cutting and placing For Column	05 July	1	6 July
84	Form work	6 July	1	7 July
85	Concreting For Column	7 July	1	8 July
86	Form work for beam and slab	8 July	1	9 July
87	Electrical pipes distribution	10 July	1	11 July
88	Steel cutting and placing	9 July	1	10 July

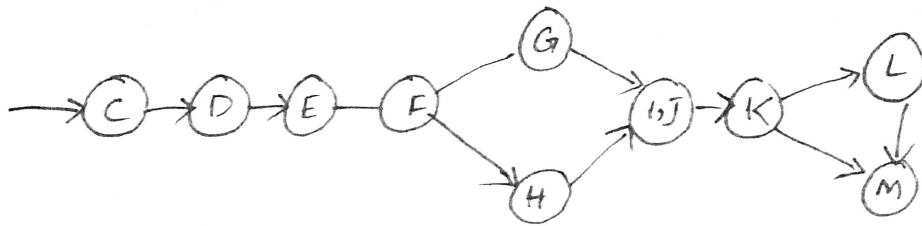
89	Concrete 1:2:4 Slab and beam	11 July	1	12 July
90	Form Removal	9 Aug	1	10 Aug
91	brick masonry	10 Aug	3	13 Aug
92	electrical and Plumbing pipes distribution	13 Aug	1	14 Aug
93	Plastering	14 Aug	3	17 Aug
94	Curing	7 July	45	21 Aug
95	Painting	17 Aug	3	20 Aug
96	Parapet wall	5 July	10	15 July
97	bitumen	15 July	1	16 July
98	mud on roof	16 July	3	19 July
99	Chowka paving	19 July	5	24 July
100	<b>Exterior work and Boundry wall</b>			
101	Layout	26 Mar	2	28 Mar
102	Excavation	28 Mar	<del>4</del>	5 Apr
103	Levelling and dressing	5 Apr	2	7 Apr
104	Anti termite	7 Apr	1	8 Apr
105	lean Concrete	8 Apr	3	11 Apr
106	brick masonry	11 Apr	14	25 Apr
107	dpc	25 Apr	2	27 Apr
108	brick masonry	27 Apr	21	17 May
109	Plastering	17 May	7	24 May
110	Painting	20 Aug	15	5 Sep



Q03:- 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 (Beam 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:-



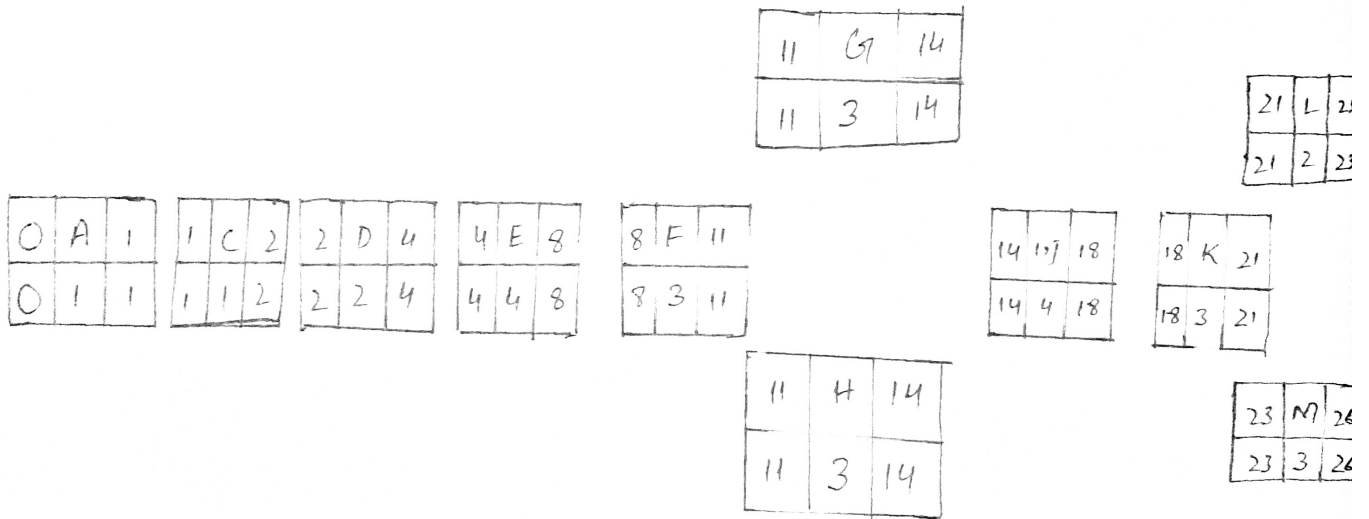
There are two paths of our project A and B

Path A (ACDEFGHIJKLM) having 26 weeks

Path B (ACDEFHIJKLM) having 24 weeks

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

Q4:- Provide maximum time taken by Project



As According To forward Pass and backward Pass the maximum time for our Project is 26 weeks

Q05 :- 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