Last Year Exam : Project Manggment ☺

. Exercise 01 :

① : PERT Chart :

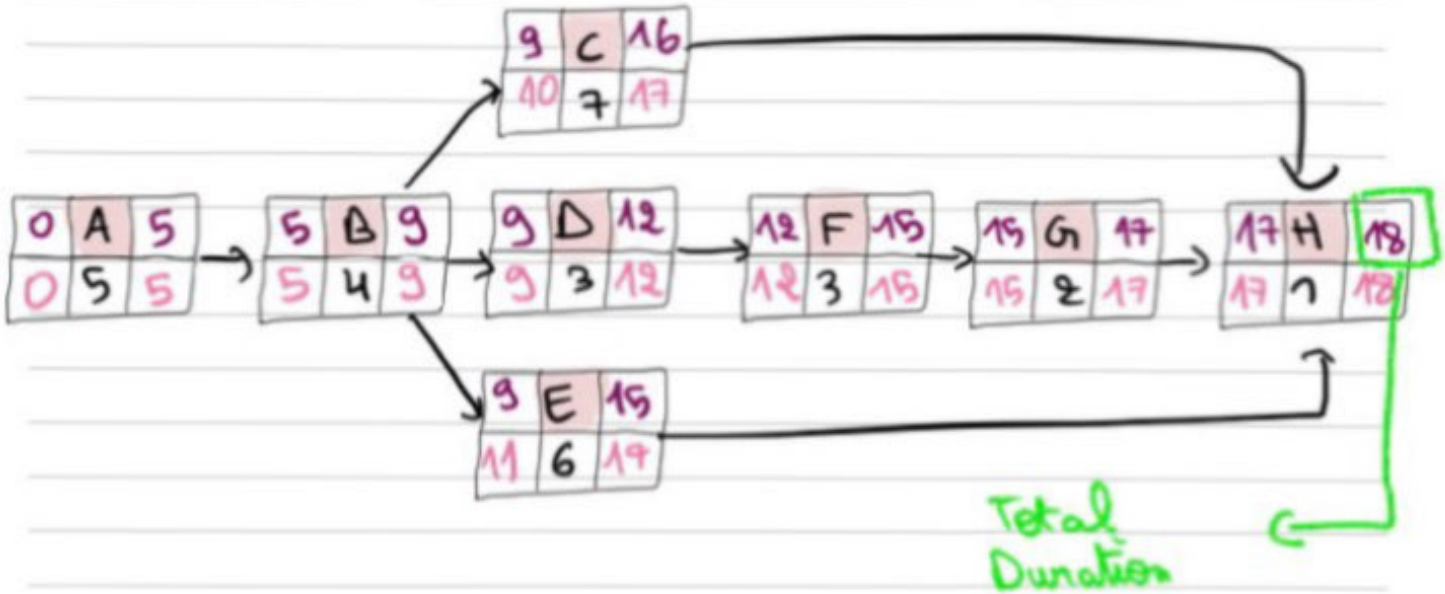
Task	Predecessor	Duration
A	—	5
B	A	4
C	B	7
D	B	3
E	B	6
F	D	3
G	F	2
H	C, E, G	1

Template :

TF

ES	Task	EF
LS	Dur	LF

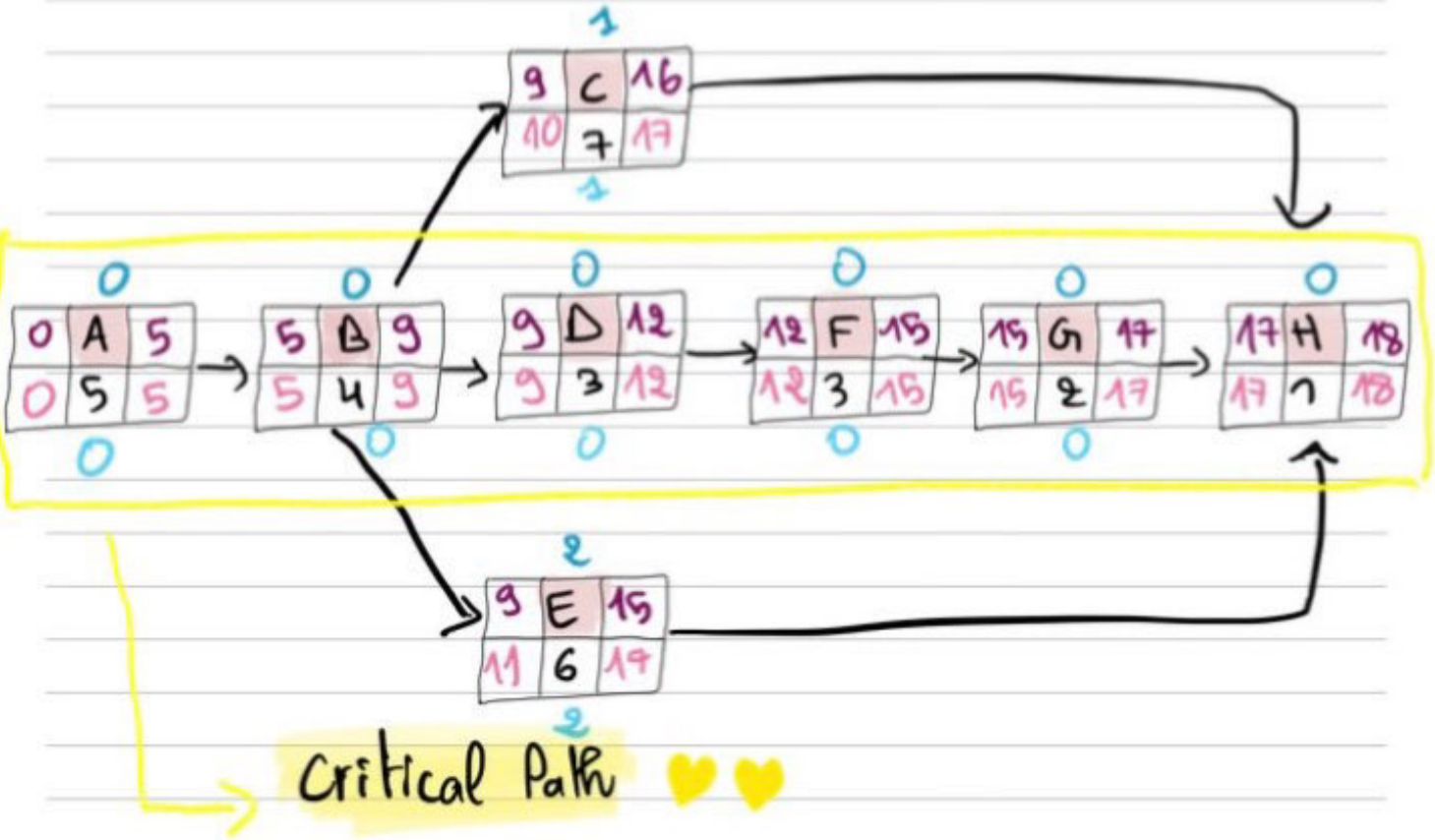
FF



② - Critical path : for each task we need to compute

(FF) Free Float : ES of successor - EF

(TF) Total Float : LF - EF

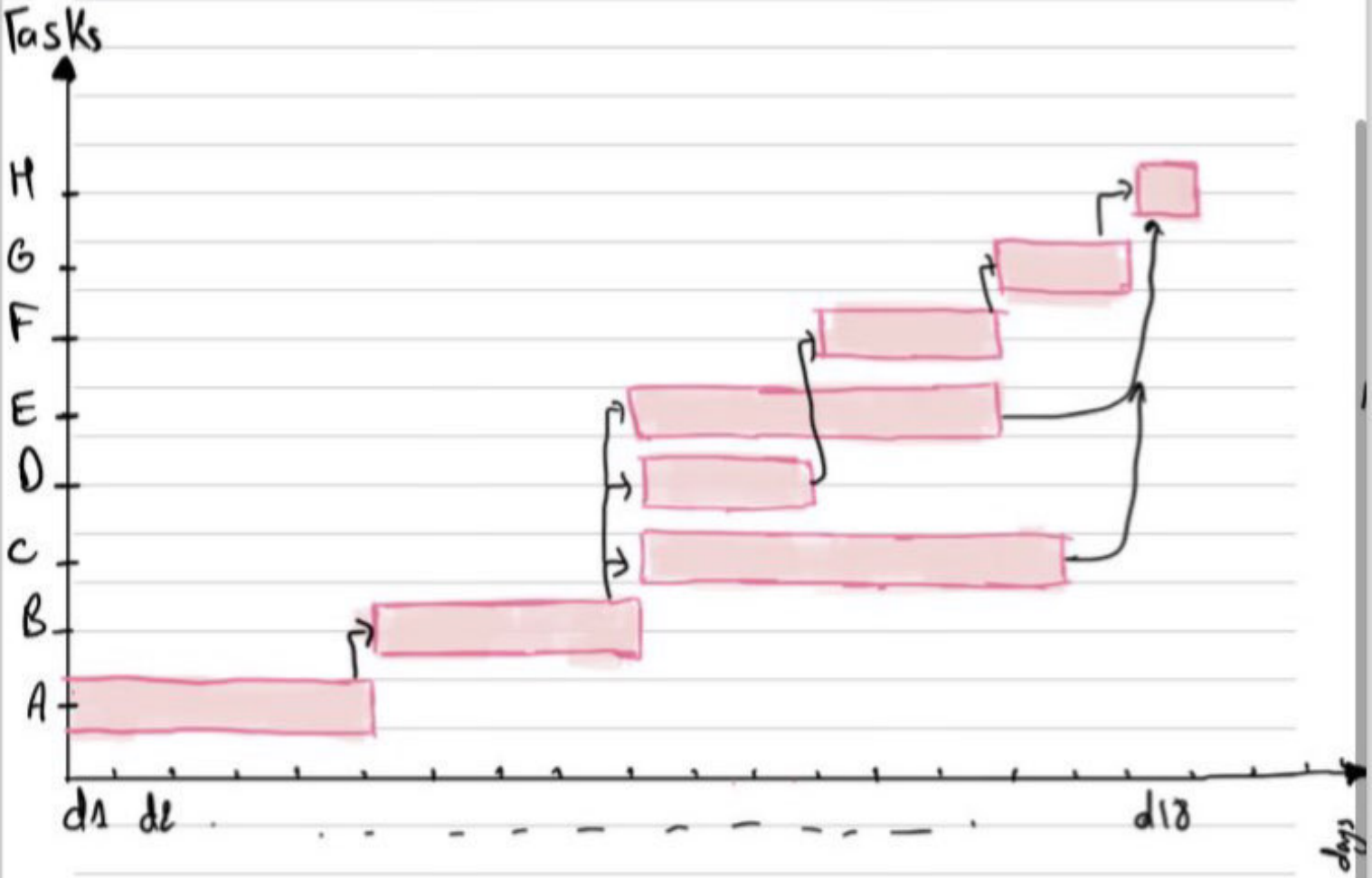


③ - If the project starts on June 2nd, and it takes 18 days, it will end on June 19th

④ - If task C takes 9 days instead of 7 days, the whole project will be delayed, this affects the whole project since for task C, TF = 1 < 2 where 2 = 9 - 7

⑤- Since task F is on the critical path, delaying it with 2 days will delay the whole project with 2 days, Thus the project ends on June, 21 st.

⑥- Grant Chart:



⑦ : Cost Estimation of each task :

Task	Predecessor	Duration	Cost / day ($)	Task cost ($)
A	-	5	400×2 = 800	800×5 = 4000
B	A	4	500×1 + 400×1 = 900	900×4 = 3600
C	B	7	300×3 = 900	900×7 = 6300
D	B	3	350×1 = 350	350×3 = 1050
E	B	6	450×2 = 900	900×6 = 5400
F	D	3	550×1 = 550	550×3 = 1650
G	F	2	550×1 = 550	550×2 = 1100
H	C,E,G	1	600×1+500×1+300×1 = 1400	1400×1 = 1400

Total cost = 25000 $

• Exercise 02 :

Qst	Answer
①	ⓑ
②	ⓐ
③	ⓒ
④	ⓑ
⑤	ⓑ
⑥	ⓐ
⑦	ⓑ
⑧	ⓓ
⑨	ⓑ
⑩	ⓐ