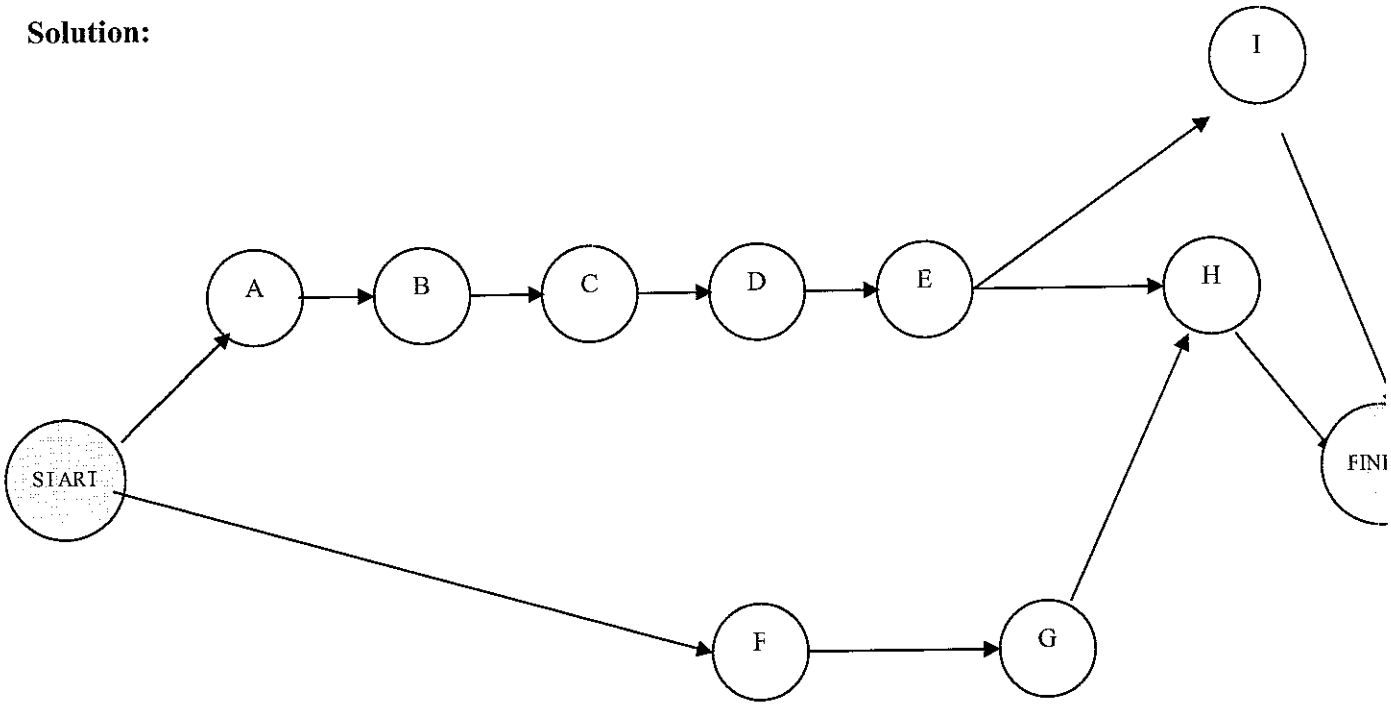
Standard Glass Ltd is considering the implementation of a new accounting system. The controller has prepared the following schedule:

Activity	Time (days)	Predecessor	
A	16	None	Identify system options
B	10	A	Evaluate options
C	5	B	Make decision
D	8	C	Develop system
E	3	D	Test system
F	26	None	Documentation
G	12	F	Test converted data
H	5	E, G	Conversion from legacy system
I	6	E	Training

REQUIRED:

1) Prepare a Pert chart. *(4 Marks)*
2) Identify the critical path activities. *(4 Marks)*
3) How many slack days are available in activity G? *(2 Marks)*
4) Contrast the different uses of Pert versus Gannt charts. *(5 Marks)*

Solution:



Identify the Critical Path:

Path ABCDEI = 16 +10 + 5 + 8 + 3 + 6 = 48 days

Path ABCDEH = 16 + 10 + 5 + 8 + 3 + 5 = 47 days

Path FGH = 26 +12 + 5 = 43 days

Therefore, the longest path = ABCDEI = Critical Path = 48 days

Calculate number of slack days for G:

G is part of Path FGH, therefore G can be delayed by 48-43 = 5 days before it will impact the overall completion date, i.e. the slack for G is 5 days. In fact, the slack for F is also 5 days slack for H = 1 day