

**PART 1 (25 pts)**

BMW car manufacturer has decided to make a significant investment into expanding its presence in the USA by setting up a large assembly facility in Ohio. It has estimated its initial set up costs to be \$250,000,000.

Forecast net income from the project is detailed as follows:

Year 1	\$25,000,000
Year 2	\$60,000,000
Year 3	\$65,000,000
Year 4	\$72,000,000
Year 5	\$81,000,000

- a) (12.5pts) Calculate the projected payback time for the project to the nearest month.
- b) (12.5 pts) Calculate the Net Present Value of the project using a discount factor of 5%. Comment on the attractiveness of the project.

**PART 2 (25 pts)**

Use the information in the table below and assume that the project team will work a standard working week (5 business days in a week, M-F) and that all tasks will start as soon as possible.

TASK	DURATION (WORKING DAYS)	PREDECESSOR(S)
A	5	
B	15	A
C	25	B
D	15	B
E	30	B
F	10	C,D
G	10	E,F
H	5	G
I	5	H

- a) (10 pts) Determine the critical path of the project.
- b) (5 pts) Calculate the planned duration of the project in weeks.
- c) (10 pts) Identify any non-critical tasks and the float (free slack) on each.