

Question 4 (6 marks)

You have won a contract to supply 400 precast concrete units for a replacement bridge. You estimate the production cost for each unit to be \$50,000. A planned production schedule has been agreed with the client and is given in the table below (14 months total).

During production you monitor the number of units produced and your actual costs, details are summarised in the table below. At the end of month 8 your CEO asks for a review.

Project Month	Planned		Actual	
	Output	Item Cost (\$000)	Output	Item Cost
0	0		0	\$0.00
1	20	\$50.00	15	\$55.00
2	20	\$50.00	16	\$50.00
3	20	\$50.00	18	\$50.00
4	25	\$50.00	18	\$58.00
5	25	\$50.00	20	\$50.00
6	25	\$50.00	22	\$55.00
7	25	\$50.00	21	\$52.00
8	30	\$50.00	24	\$57.00
9	30	\$50.00		
10	30	\$50.00		
11	35	\$50.00		
12	35	\$50.00		
13	40	\$50.00		
14	40	\$50.00		

- Complete an earned value analysis using the information provided. Plot the BCWS, ACWP and BCWP on a graph at a suitable scale.
- Calculate the Cost Performance Index (CPI) and Schedule Performance Index (SPI).
- Calculate the Critical Ratio (CR) and the Estimate at Completion (EAC).
- Interpret the results