

ii) Cost Performance Index:-

- it measures cost efficiency in a project.
- it helps to find out whether the project is staying within budget.

$$CPI = \frac{EV}{AC}$$

where,

EV \rightarrow Budgeted cost of work actually completed

AC \rightarrow Actual cost incurred for the work performed.

if,

$CPI = 1.0 \rightarrow$ project is on budget.

$CPI > 1.0 \rightarrow$ project is under budget (cost-efficient)

$CPI < 1.0 \rightarrow$ Project is over budget (cost overrun).

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i) Estimate at Completion:- (EAC):-

- it is expected total cost of the project at completion, based on current performance.
- it helps project managers predict whether the project will be completed within budget or if additional funds are needed.

- Formula:- if cost performance remains same: $EAC = \frac{BAC}{CPI}$

ii) Budget at Completion (BAC):-

- it is total budget planned for the entire project.
- it represents the original cost baseline & serves as a reference for tracking performance.

Formula:- $BAC = \sum (\text{Planned Costs})$.