

Examples:-

- * A project in its 26th week has an actual cost of Rs. ~~250~~ 2,50,000. It was scheduled to have spent Rs. 2,41,000.
- For the work performed to date, the budgeted value is Rs. 2,52,000.
- i) What are the cost & schedule variances for the project.
- ii) What are the SPI & CPI.

⇒ Given Data:-

- Actual Cost AC = Rs. 2,50,000.
- Planned Value PV = Rs. 2,41,000.
- Earned Value (EV) = Rs. 2,52,000.

i) Compute Variances:

a) Cost Variance:-

$$CV = EV - AC$$

$$= 2,52,000 - 2,50,000$$

$$CV = \text{Rs. } 2,000$$

As, CV is positive or $CV > 0$ project is under budget.

b) Schedule Variance:-

$$SV = EV - PV$$

$$= 2,52,000 - 2,41,000$$

$$SV = \text{Rs. } 11,000$$

Since $SV > 0$ or positive, project is ahead of schedule.

ii) Compute: Performance Index:-

a) Schedule Performance Index:-

$$SPI = \frac{EV}{PV}$$

$$= \frac{2,52,000}{2,41,000}$$

$$SPI = 1.0456$$

As $SPI > 1$, project is performing ahead of schedule.

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

$$= \frac{2,52,000}{2,50,000}$$

$$CPI = 1.008$$

As $CPI > 1$, the project is cost-efficient.

* Final Answers:-

Cost Variance = Rs. 2,000 (Under Budget)

Schedule Variance = Rs. 11,000 (Ahead of schedule)

$SPI = 1.0456$ (Ahead of schedule)

$CPI = 1.008$ (Cost-efficient).