## LEARNING ACTIVITY LESSON 8: <br> EARNED VALUE MANAGEMENT

You have been assigned to undertake the construction of a single storey house and has come up with the earned value table at a timenow as shown below.

| No | Activity | BAC <br> $(\mathbf{R M})$ | BCWS <br> $(\mathbf{R M})$ | PC <br> $(\%)$ | BCWP <br> $(\mathbf{R M})$ | ACWP <br> $(\mathbf{R M})$ | SV | CV <br> $(\mathbf{R M})$ | EAC <br> $(\mathbf{R M})$ |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Construct <br> Foundation | 15,000 | 15,000 | 100 |  | 14,000 |  |  |  |
| 2 | Construct <br> Ground <br> Beams | 10,000 | 8,000 | 100 |  | 7,500 |  |  |  |
| 3 | Erect <br> Columns | 7,000 | 4,900 | 80 |  | 5,500 |  |  |  |
| 4 | Construct <br> Roof <br> Beams | 6,000 | 2,400 | 50 |  | 3,000 |  |  |  |
| 5 | Construct <br> Floor Slab | 8,000 | 2,000 | 30 |  | 2,500 |  |  |  |
| 6 | Construct <br> Brick walls | 6,000 | 1,200 | 25 |  | 1,700 |  |  |  |
| 7 | Put up <br> roofings | 4,000 | - | - |  | - |  |  |  |
| 8 | Electrical <br> Wirings | 6,000 | - | - |  | - |  |  |  |
| 9 | Plastering | 2,000 | - | - |  | - |  |  |  |
| 10 | Clearing of <br> Site | 1,000 | - | - |  | - |  |  |  |

a) Based on the information given, calculate the following for Activity 1 to Activity 6 :
i) Budgeted Cost for Work Performed (BCWP)
ii) Estimate at Completion (EAC)
iii) Schedule Variances (SV)
iv) Cost Variances (CV)
b) Compute the Cost Performance Index (CPI) for the whole project.
c) Compute the Schedule Performance Index (SPI) for the whole project. What is the estimated time to complete the project if it was initially intended to complete in 100 days?
d) Analyse your results and provide conclusions for the performance of the overall projects. Give your recommendations.

