#

# King Saud University

**Information Systems Department**

Project Management (IS-351)

# Homework # 3

|  |  |
| --- | --- |
| **Student Name:-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **Section:-\_\_\_\_\_\_\_** |
| **SID No.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **Student Class No.: \_\_\_\_\_\_\_\_** |
| **Total Marks:- 10** | **Marks Awarded:\_\_\_\_\_\_\_\_\_\_** |

=========================================================================

**Question 1:** Using the formulas given in table-1, if needed, solve the given problem (2 points)

Table-1:

|  |  |
| --- | --- |
| Planned value ( PV ) |  |
| Actual Cost ( AC ) |  |
| Earned value ( EV ) | EV = PV up to date \* percent completed |
| Cost Variance ( CV ) | CV = EV - AC |
| Schedule variance ( SV ) | SV = EV - PV |
| Cost Performance Index ( CPI ) | CPI = EV / AC |
| Schedule Performance Index ( SPI ) | SPI = EV / PV |
| Estimate at Completion (EAC)  | EAC = BAC / CPI (for cost) |
| Estimated time for project completion  | Scheduled Time of project / SPI  |

**The problem:**

**Given for a (7 months) project, the following data:**

 **PV = $ 24,000**

 **EV = $21,000**

 **AC = $20,000**

 **BAC = $100,000**

**1. a) How is this project performing? (0.25 point)**

 **[a]** This project is ***under budgeted*** & ***behind schedule*** .

 [b] This project is ***under budgeted*** & ***ahead of schedule***.

 [c] This project is ***over budgeted*** & ***behind schedule*.**

 **[d]** This project is ***over budgeted*** & ***ahead of schedule*.**

**Answer: Circle the correct choice**

**The Correct Choice is**

|  |  |  |  |
| --- | --- | --- | --- |
|  **[a]** |  **[b]** |  **[c]** |  **[d]** |

1. **b) Calculate the value of CV (0.25 point)**

 **CV =**

1. **c) Calculate the value of SV (0.25 point)**

 **SV =**

1. **d) Calculate the value of CPI (0.25 point)**

 **CPI =**

1. **e) Calculate the value of SPI (0.25 point)**

 **SPI =**

**1. f) The estimated time to complete the project: (0.25 point)**

 **[a] *6 months***

 [b] ***7 months***

 [c] ***8 months***

 **[d]** ***None of the above***

**Answer: Circle the correct choice**

**The Correct Choice is**

|  |  |  |  |
| --- | --- | --- | --- |
|  **[a]** |  **[b]** |  **[c]** |  **[d]** |

**1. g) Performing the work of this project (0.25 point)**

 **[a]** costs more than what was planned because CV is a positive number.

 [b] costs less than what was planned because CV is a positive number.

 [c] costs exactly as planned because CV is equal to zero**.**

 **[d]** None of the above**.**

**Answer: Circle the correct choice**

**The Correct Choice is**

|  |  |  |  |
| --- | --- | --- | --- |
|  **[a]** |  **[b]** |  **[c]** |  **[d]** |

**1. h) Performing the work of this project (0.25 point)**

 **[a]** took less time than what was planned because SV is a negative number.

 [b] took longer than what was planned because SV is a positive number.

 [c] took exactly as planned because SV is equal to zero**.**

 **[d]** None of the above**.**

**Answer: Circle the correct choice**

**The Correct Choice is**

|  |  |  |  |
| --- | --- | --- | --- |
|  **[a]** |  **[b]** |  **[c]** |  **[d]** |

**Question 2:** Read each of the following statements, then fill in the entries of table -2 by writing (true) or (false) in the entries provided. **(3 points)**

**Table-2:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Statement**  | **Statement a)** | **Statement b)** | **Statement c)** | **Statement** **d)** | **Statement** **e)** | **Statement****f)** |
| **ANSWER** |  |  |  |  |  |  |

1. **The ISO definition of quality is the totality of characteristics of an entity that bear**

 **on its ability to satisfy stated or implied needs.**

1. **Pareto Analysis is sometimes referred to as the 80-20 rule, meaning that 80 percent of problems are often due to 20 percent of the causes.**
2. **The normal distribution is a bell-shaped curve that is symmetrical about the mean (average value) of the population.**
3. **User acceptance testing occurs between unit and system testing to test functionally grouped components.**
4. **Integration testing is done to test each individual component (often a program) to**

 **ensure it is as defect-free as possible.**

1. **A unit test is an independent test performed by end users prior to accepting the**

**delivered system.**

**Question 3:** Fill in the blanks by choosing a word from the words listed in the entries of table -3. **(4 points)**

**Table-3:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **intrinsic** | **coercive** | **WBS** | **adjourning**  | **acquiring** | **installation** | **integration** | **system** |
| **prior** | **unit** | **data** | **ISO 9002** | **managing** | **leveling** | **incentives** | **penalty** |

1. \_\_\_\_\_\_\_\_\_\_\_\_ motivation causes people to participate in an activity for their own enjoyment..
2. Extrinsic motivation causes people to do something for a reward or to avoid a\_\_\_\_\_\_\_\_\_\_\_\_.
3. \_\_\_\_\_\_\_\_\_\_\_ power involves using punishment, threats or other negative approaches to get people to do things they do not want to do.
4. Reward power involves using \_\_\_\_\_\_\_\_\_\_\_\_\_ to induce people to do things.
5. A responsibility assignment matrix (RAM) is a matrix that maps the work of the project as described in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the people responsible for performing the work as described in the organizational breakdown structure (OBS).
6. Developing a Project team requires five stages the last of which is \_\_\_\_\_\_\_\_\_\_\_ the team after successfully completing the work.
7. Resource loading and Resource \_\_\_\_\_\_\_\_\_\_\_\_\_\_ are important concepts in project human resource management.
8. Human resource management includes the following four processes: Human resource planning, \_\_\_\_\_\_\_\_the project team, developing the project team, and \_\_\_\_\_\_\_\_\_\_\_the project team.
9. \_\_\_\_\_\_\_\_\_applies to organizations who do not design products but are only involved in production.
10. ISO 9003 applies to organizations involved only in \_\_\_\_\_\_\_\_\_\_\_\_and testing of the products.
11. During software development the only raw material consumed is\_\_\_\_\_\_\_\_\_.
12. A \_\_\_\_\_\_\_ test is done to test each individual component (often a program) to ensure it is as defect-free as possible.
13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ testing occurs between unit and system testing to test functionally grouped components.
14. \_\_\_\_\_\_\_\_\_\_\_\_\_ testing tests the entire system as one entity.
15. User acceptance testing is an independent test performed by end users \_\_\_\_\_\_\_\_\_\_\_ to accepting the delivered system.

**Question 4:** Define, RAM (Responsibility Assignment Matrix)? **(1 point)**

**ANSWER:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| Q1 / 2 pts | Q2 / 3 pts | Q3 / pts | Q4 / 1 pt |
| [ / 2 ] | [ / 3 ] | [ / 4 ] | [ / 1 ] |

|  |  |
| --- | --- |
| Mark out of [10] | Mark out of [1.25] |
|  |  |