**Microsoft Project**

**PRÁCTICA**

**Project "Earned Value fixed cost"**

**Requirements**

*Open the*  2Ava-2020.mpp ***drive*** file***.***

**Part 1**

1. Check start date at 02/Jan/20 20
2. Include "fixed costs" (in view of cost) for the following activities: already done in the practice file.

|  |  |  |
| --- | --- | --- |
| **Item** | **EV service station\_updated** | **FIXED COST** |
| 1 | **FOUNDATION** | **₡0,00** |
| 2 | Carry out earthworks | ₡1 500 000,00 |
| 3 | Excavation of foundations | ₡3 450 000,00 |
| 4 | craft armor foundations | ₡1 850 000,00 |
| 5 | blast foundations | ₡850 000,00 |

|  |  |  |
| --- | --- | --- |
| **Item** | **EV service station\_updated** | **FIXED COST** |
| **30** | **WORKS AND INSTALLATIONS** | **₡0,00** |
| 31 | Carry out exterior works | ₡55 000 000,00 |
| 32 | Make mechanical installations | ₡4 850 000,00 |
| 33 | Make electrical installations | ₡5 750 000,00 |

1. **Save BASELINE**
2. Disable the "schedule" that "Project always calculates the actual costs". (in File Options – Schedule (at the end disable the option "Project always calculates the actual costs")

**Part 2**

1. *According to work done, the following actual costs*  and %  *progress* should be charged  *for the following activities (check the month of the expense and progress):* insert the column "% completed" in the "Cost" view to include the % progress. Go to File-Options-Advanced-Earned Value Options for this project-review that the Default method of Task Earned Value: % Completed.

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **EV service station\_updated** | **Month 1** | **%** |
| 1 | **FOUNDATION** | **₡0,00** |  |
| 2 | Carry out earthworks | ₡1 500 000,00 | 100% |
| 3 | Excavation of foundations | ₡3 450 000,00 | 100% |
| 4 | craft armor foundations | ₡1 750 000,00 | 100% |
| 5 | blast foundations | ₡1 000 000,00 | 100% |
| 6 | **GRAY WORK** | **₡0,00** |  |
| 8 | Create column reinforcement | ₡1 420 000,00 | 100% |
| 9 | Place formwork to columns | ₡500 000,00 | 82% |
| 10 | drip column | ₡430 000,00 | 50% |
| 11 | Manufactured metallic structure | ₡23 100 000,00 | 100% |
| 13 | Make concrete beam reinforcement | ₡450 000,00 | 100% |
| 14 | Placing concrete beam forms | ₡200 000,00 | 80% |
| 22 | **FINISHES** | **₡0,00** |  |
| 30 | **WORKS AND INSTALLATIONS** | **₡0,00** |  |
| 31 | Carry out exterior works | ₡5 000 000,00 | 15% |

1. ***Verify that the "***Status Date" is **31/Jan/**20 **20 in View-Tables-More Tables-Value Acumulated to see the corresponding table, then insert the columns % completed, IRC, IRP, IRPC**
   1. How much is the IRC or cost return index for the current advancement, what is your interpretation regarding the cost performance of the project on the cut-off date?
   2. How much is the IR P or schedule performance index for the current progress, what is your interpretation regarding the performance of the project chart on the cut-off date?
   3. How much is the IRPC or performance index of work to be completed, what is your interpretation regarding the performance of the project as of the cut-off date?

**Part 3 in the same file generated in Part 2, enter the changes indicated in the following table,** **accumulate the actual costs of the evaluation periods.**

1. *According to work done, the following real*  costs and % of progress must be charged for the  *following activities (remember to accumulate the actual costs*  at the cut-off date  *and put*  the  *progress* on the cut-off date, check that the ***%*** progress on the *cut-off date is not lower than the previous ones in the same activity, Note this instruction in each court):*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | **EV service station\_updated** | **Month 1** | **Month 2** | **Accumlulated %** |
| 1 | **FOUNDATION** | **₡0,00** | **₡0,00** |  |
| 2 | Carry out earthworks | ₡1 500 000,00 | ₡0,00 | 100% |
| 3 | Excavation of foundations | ₡3 450 000,00 | ₡0,00 | 100% |
| 4 | craft armor foundations | ₡1 750 000,00 | ₡0,00 | 100% |
| 5 | blast foundations | ₡1 000 000,00 | ₡0,00 | 100% |
| 6 | **GRAY WORK** | **₡0,00** | **₡0,00** |  |
| 7 | work masonry | ₡0,00 | ₡1 250 000,00 | 100% |
| 8 | Create column reinforcement | ₡1 420 000,00 | ₡0,00 | 100% |
| 9 | Place formwork to columns | ₡500 000,00 | ₡325 000,00 | 100% |
| 10 | drip column | ₡430 000,00 | ₡600 000,00 | 60% |
| 11 | Manufactured metallic structure | ₡23 100 000,00 | ₡0,00 | 100% |
| 12 | Mechanical structure assembly | ₡0,00 | ₡2 500 000,00 | 100% |
| 13 | Make concrete beam reinforcement | ₡450 000,00 | ₡0,00 | 100% |
| 14 | Placing concrete beam forms | ₡200 000,00 | ₡65 000,00 | 100% |
| 15 | blast concrete beams | ₡265 000,00 | ₡300 000,00 | 100% |
| 16 | Lay roof tiles | ₡450 000,00 | ₡450 000,00 | 100% |
| 17 | Manufacture of roof structures | ₡16 000 000,00 | ₡16 000 000,00 | 100% |
| 18 | Mount roof structure | ₡2 000 000,00 | ₡2 000 000,00 | 100% |
| 22 | **FINISHES** | **₡0,00** | **₡0,00** |  |
| 30 | **WORKS AND INSTALLATIONS** | **₡0,00** | **₡0,00** |  |
| 31 | Carry out exterior works | ₡5 000 000,00 | ₡21 000 000,00 | 45% |
| 32 | Make mechanical installations | ₡0,00 | ₡2 300 000,00 | 42% |
| 33 | Make electrical installations | ₡0,00 | ₡2 700 000,00 | 42% |

1. ***Verify*** that the "Status Date" is **28**/Feb**/**20 **20**
2. How much is the IRC or cost return index for the current advancement, what is your interpretation regarding the cost performance of the project on the cut-off date?
3. How much is the IR P or schedule performance index for the current progress, what is your interpretation regarding the performance of the project chart on the cut-off date?
4. How much is the IRPC or performance index of work to be completed, what is your interpretation regarding the performance of the project as of the cut-off date?

**Part 4**

1. *According to the work carried out, the following real costs*  and ***%*** *of* progress must be charged  *for the following activities (check the month of expenditure and progress):*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item** | **EV service station\_updated** | **FIXED COST** | **Month 1** | **Month 2** | **Month 3** | **Accumlulated %** |
| 1 | **FOUNDATION** | **₡0,00** | **₡0,00** | **₡0,00** | **₡0,00** |  |
| 2 | Carry out earthworks | ₡1 500 000,00 | ₡1 500 000,00 |  |  | 100% |
| 3 | Excavation of foundations | ₡3 450 000,00 | ₡3 450 000,00 |  |  | 100% |
| 4 | craft armor foundations | ₡1 850 000,00 | ₡1 750 000,00 |  |  | 100% |
| 5 | blast foundations | ₡850 000,00 | ₡1 000 000,00 |  |  | 100% |
| 6 | **GRAY WORK** | **₡0,00** | **₡0,00** | **₡0,00** | **₡0,00** |  |
| 7 | work masonry | ₡1 250 000,00 |  | ₡1 250 000,00 |  | 100% |
| 8 | Create column reinforcement | ₡1 300 000,00 | ₡1 420 000,00 |  |  | 100% |
| 9 | Place formwork to columns | ₡770 000,00 | ₡500 000,00 | ₡325 000,00 |  | 100% |
| 10 | drip column | ₡960 000,00 | ₡430 000,00 | ₡600 000,00 |  | 100% |
| 11 | Manufactured metallic structure | ₡23 000 000,00 | ₡23 100 000,00 |  |  | 100% |
| 12 | Mechanical structure assembly | ₡2 500 000,00 | 0 | ₡2 500 000,00 |  | 100% |
| 13 | Make concrete beam reinforcement | ₡345 000,00 | ₡450 000,00 |  |  | 100% |
| 14 | Placing concrete beam forms | ₡250 000,00 | ₡200 000,00 | ₡65 000,00 |  | 100% |
| 15 | blast concrete beams | ₡265 000,00 | ₡265 000,00 | ₡300 000,00 |  | 100% |
| 16 | Lay roof tiles | ₡450 000,00 | ₡450 000,00 | ₡450 000,00 |  | 100% |
| 17 | Manufacture of roof structures | ₡16 000 000,00 | ₡16 000 000,00 | ₡16 000 000,00 |  | 100% |
| 18 | Mount roof structure | ₡2 000 000,00 | ₡2 000 000,00 | ₡2 000 000,00 |  | 100% |
| 19 | place cover | ₡1 950 000,00 | ₡1 950 000,00 |  | ₡2 000 000,00 | 100% |
| 20 | blast subfloor | ₡625 000,00 | ₡625 000,00 |  | ₡700 000,00 | 100% |
| 21 | pomer repellos | ₡610 000,00 | ₡610 000,00 |  | ₡610 000,00 | 100% |
| 22 | **FINISHES** | **₡0,00** | **₡0,00** | **₡0,00** | **₡0,00** |  |
| 23 | Placing light walls | ₡6 500 000,00 | ₡6 500 000,00 |  | ₡6 200 000,00 | 100% |
| 30 | **WORKS AND INSTALLATIONS** | **₡0,00** | **₡0,00** | **₡0,00** | **₡0,00** |  |
| 31 | Carry out exterior works | ₡55 000 000,00 | ₡5 000 000,00 | ₡21 000 000,00 | ₡23 000 000,00 | 85% |
| 32 | Make mechanical installations | ₡4 850 000,00 | ₡0,00 | ₡2 300 000,00 | ₡2 200 000,00 | 86% |
| 33 | Make electrical installations | ₡5 750 000,00 | ₡0,00 | ₡2 700 000,00 | ₡2 530 000,00 | 86% |

1. ***Verify*** that the "Status Date" is **30**/**Mar/**20 **20**
2. How much is the IRC or cost return index for the current advancement, what is your interpretation regarding the cost performance of the project on the cut-off date?
3. How much is the IR P or schedule performance index for the current progress, what is your interpretation regarding the performance of the project chart on the cut-off date?
4. How much is the IRPC or performance index of work to be completed, what is your interpretation regarding the performance of the project as of the cut-off date?

**Part 5**

1. *According to the work carried out, the following real costs*  and ***%*** *of* progress must be charged  *for the following activities (check the month of expenditure and progress):*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item** | **EV service station\_updated** | **Month 1** | **Month 2** | **Month 3** | **Month 4** | **Accumlulated %** |
| 1 | **FOUNDATION** |  |  |  |  |  |
| 2 | Carry out earthworks | ₡1 500 000,00 |  |  |  | 100% |
| 3 | Excavation of foundations | ₡3 450 000,00 |  |  |  | 100% |
| 4 | craft armor foundations | ₡1 750 000,00 |  |  |  | 100% |
| 5 | blast foundations | ₡1 000 000,00 |  |  |  | 100% |
| 6 | **GRAY WORK** |  |  |  |  |  |
| 7 | work masonry |  | ₡1 250 000,00 |  |  | 100% |
| 8 | Create column reinforcement | ₡1 420 000,00 |  |  |  | 100% |
| 9 | Place formwork to columns | ₡500 000,00 | ₡325 000,00 |  |  | 100% |
| 10 | drip column | ₡430 000,00 | ₡600 000,00 |  |  | 100% |
| 11 | Manufactured metallic structure | ₡23 100 000,00 |  |  |  | 100% |
| 12 | Mechanical structure assembly | ₡0,00 | ₡2 500 000,00 |  |  | 100% |
| 13 | Make concrete beam reinforcement | ₡450 000,00 |  |  |  | 100% |
| 14 | Placing concrete beam forms | ₡200 000,00 | ₡65 000,00 |  |  | 100% |
| 15 | blast concrete beams | ₡265 000,00 | ₡300 000,00 |  |  | 100% |
| 16 | Lay roof tiles | ₡450 000,00 | ₡450 000,00 |  |  | 100% |
| 17 | Manufacture of roof structures | ₡16 000 000,00 | ₡16 000 000,00 |  |  | 100% |
| 18 | Mount roof structure | ₡2 000 000,00 | ₡2 000 000,00 |  |  | 100% |
| 19 | place cover | ₡1 950 000,00 |  | ₡2 000 000,00 |  | 100% |
| 20 | blast subfloor | ₡625 000,00 |  | ₡700 000,00 |  | 100% |
| 21 | pomer repellos | ₡610 000,00 |  | ₡610 000,00 |  | 100% |
| 22 | **FINISHES** |  |  |  |  |  |
| 23 | Placing light walls | ₡6 500 000,00 |  | ₡6 200 000,00 |  | 100% |
| 24 | drop ski | ₡2 700 000,00 |  |  | ₡2 700 000,00 | 100% |
| 25 | put veneers | ₡800 000,00 |  |  | ₡750 000,00 | 100% |
| 26 | place doors | ₡675 000,00 |  |  | ₡800 000,00 | 100% |
| 27 | place windows | ₡1 275 000,00 |  |  | ₡1 000 000,00 | 100% |
| 28 | Install steel curtains | ₡900 000,00 |  |  | ₡1 050 000,00 | 100% |
| 29 | painting | ₡2 300 000,00 |  |  | ₡2 550 000,00 | 100% |
| 30 | **WORKS AND INSTALLATIONS** |  |  |  |  |  |
| 31 | Carry out exterior works | ₡5 000 000,00 | ₡21 000 000,00 | ₡23 000 000,00 | ₡5 100 000,00 | 100% |
| 32 | Make mechanical installations |  | ₡2 300 000,00 | ₡2 200 000,00 | ₡750 000,00 | 100% |
| 33 | Make electrical installations |  | ₡2 700 000,00 | ₡2 530 000,00 | ₡600 000,00 | 100% |
| 34 | Clean |  |  |  | ₡500 000,00 | 100% |

1. ***Verify*** that the "Status Date" is **30**/**Apr/**20 **20**
2. How much is the IRC or cost return index for the current advancement, what is your interpretation regarding the cost performance of the project on the cut-off date?
3. How much is the IR P or schedule performance index for the current progress, what is your interpretation regarding the performance of the project chart on the cut-off date?
4. How much is the IRPC or performance index of work to be completed, what is your interpretation regarding the performance of the project as of the cut-off date?

---- End of Practice ----