Second semester 2021/2022

Biostatistics

**Report**class work (4)

Date of submission: 14/06/2022

Student ID: 1191985

Student name: Wisam Nassar

Instructor: Dr. Lina Elkhairy

**Question (1):**

**A. PCV and hemoglobin correlation:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Correlations** | | | |
|  | | PCV | Hb |
| PCV | Pearson Correlation | 1 | .673\*\* |
| Sig. (2-tailed) |  | .001 |
| N | 20 | 20 |
| Hb | Pearson Correlation | .673\*\* | 1 |
| Sig. (2-tailed) | .001 |  |
| N | 20 | 20 |
| \*\*. Correlation is significant at the 0.01 level (2-tailed). | | | |

P value is 0.001: less than 0.05, so the association is statistically significant.

**B. Hb and Age correlation**

|  |  |  |  |
| --- | --- | --- | --- |
| **Correlations** | | | |
|  | | Hb | Age |
| Hb | Pearson Correlation | 1 | .880\*\* |
| Sig. (2-tailed) |  | .000 |
| N | 20 | 20 |
| Age | Pearson Correlation | .880\*\* | 1 |
| Sig. (2-tailed) | .000 |  |
| N | 20 | 20 |
| \*\*. Correlation is significant at the 0.01 level (2-tailed). | | | |

P value is 0.000: less than 0.05, so the association is statistically significant.

**Question (2): Hb and PCV regression**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Coefficientsa** | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| B | Std. Error | Beta |
| 1 | (Constant) | 5.589 | 2.245 |  | 2.489 | .023 |
| PCV | .205 | .053 | .673 | 3.864 | .001 |
| a. Dependent Variable: Hb | | | | | | |

Hb= α + (0.205)PCV

P value is 0.001: less than 0.05, the association is statistically significant.

**Question (3): Hb, PCV and age multiple regression**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Coefficientsa** | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| B | Std. Error | Beta |
| 1 | (Constant) | 5.239 | 1.206 |  | 4.342 | .000 |
| PCV | .097 | .033 | .319 | 2.977 | .008 |
| Age | .110 | .016 | .723 | 6.742 | .000 |
| a. Dependent Variable: Hb | | | | | | |

Hb= α + (0.097) PCV + (0.110) age

P value for PCV is 0.008: less than 0.05 so the association is statistically significant

P value for age is 0.000: less than 0.05, the association is statistically significant as well