## IQRA NATIONALUNIVERSITY, PESHAWAR

## Department Of CED

## Final Term Summer-2020

Subject: Probability \& Statistics
Instructor: Anwar Shamim

| Duration: | 04 Hours |
| :--- | :--- |
| Total Marks: | 50 |

Note: Attempt all questions. Manage your time properly.
Q.No. (01)
(10+10) CLO-3

Compute and analyse the results of the least squares regression equation and coefficient of correlation of Yon X for the following data. Compare your manual results with the outcome of SPSS?

| Temperature | 53 | 62 | 57 | 71 | 78 | Last two digits of your id | 86 | 87 | 96 | 91 | 94 | 94 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Chirps per minute | 20 | 32 | 45 | 60 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 210 |

Q.No. (02)
(5+5) CLO-2
a) A box contains 4 red, 4 white and 5 green balls. Three balls are drawn from the box together. Find the probability that they may be (i) all of different colours, (ii) all of the same colours.
b) Of 12 eggs in a refrigerator, 2 are bad. From these, 4 eggs are chosen at random to make a cake. What are the probabilities that (i) exactly one is bad? (ii) At least one is bad?
Q.No. (03)
(5+5+10) CLO-2

The following are the scores made by three batsmen $A, B$ and $C$ in a series of innings.

| A | 12 | 15 | 6 | 73 | 7 | Last two digits of your id | 199 | 36 | 84 | 29 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| B | 47 | 12 | 76 | 48 | 4 | Last two digits of your id | 37 | 48 | 13 | 3 |
| C | 15 | 23 | 52 | 4 | 24 | Last two digits of your id | 74 | 52 | 13 | 4 |

(a) Find the range of batsmen $A, B$ and $C$ ?
(b) Who is more consistent player?
(c) Compare $A$ with $B, B$ with $C$ and $A$ with $C$ ?

