**Department Of AHS**

**Final Term Summer-2020**

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| **Subject:** Probability & Statistics | **Duration:** 4 Hours |
| **Instructor:** Anwar Shamim | **Total Marks:** 50 |

**Note:** Attempt all questions. Manage your time properly.

### Q.No. (01)  (10+10)

Compute the results of the least squares regression equation and coefficient of correlation of Y on X for the following data.

| Temperature | 53 | 62 | 57 | 71 | 78 | 66 | 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)

**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)  (10+10)

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

| A | 12 | 15 | 6 | 73 | 7 | 19 | 199 | 36 | 84 | 29 |
|---|---|---|---|---|---|---|---|---|---|---|
| B | 47 | 12 | 76 | 48 | 4 | 51 | 37 | 48 | 13 | 0 |
| C | 15 | 23 | 52 | 4 | 24 | 86 | 74 | 52 | 13 | 0 |

(a) Who is more consistent player?