Salahaddin University- Erbil

College of Agricultural Engineering Sciences

Basic Sciences Unit   G-7-

Subject: P. of Statistics

data: 15 \ 5 \ 2022

Time: 90 minutes

Second Practical Examination, 1st Stage Students, 2nd Semester 2021-2022

Note: Answer only four questions: Maximum Marks: 100

Q1) Find the **standard deviation, Variance**, **Range**, **Standard Error,** and **C.V.** for the weight of (10) lambs in kg: 8, 6, 7, 5, 6, 10, 8, 6, 7, 7   *(25 Marks)*

Q2) A population of cats is known to have 147 heart beats per minute. When 13 cats were each fed on a fixed quantity of a drug and data taken on their beats, the mean of sample is 160 with SD = 27.5. Find if there is a change in heart beat due to drug. *(For your information: t from table at df_{12} on 5% L.S. =2.179)*   *(25 Marks)*

Q3) In a M. Sc. Research on chickens, the mean haemoglobin level of 55 chickens was found to be 11.0 g per 100ml with a standard deviation of 2.1. Can it be considered that this group of chickens is identified from a population with a mean of 10.2 g/100ml? *(Use the 1% level of significance)*   *(25 Marks)*

Q4) Fishes were reared in three different ponds with different types of food. A sample of 5 fishes was selected from each pond. Their weights are recorded in the table below. Find out if these data suggest a different in average weight of fishes reared in different ponds?   *(F from table at df t=2 and df n_t =12 on 5% L. S.= 3.89)*   *(25 Marks)*

Pond A	Pond B	Pond C
20	28	20
26	26	19
24	30	23
22	31	22
20	27	26

Q5) The expected proportions of male and female born babies are 1:1 in the population. 100 babies born in a hospital during 24 hours were 45 males and 55 females. Are the proportions in that sample of babies different than expected? *(For your information: Tabular critical value at df =1, L.S 1% for X² =3.84).*   *(25 Marks)*

ALL THE BEST

Mr. Hemin Hussein Ali

Practical Lecturer

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