

RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College affiliated to University of Calcutta)

B.A./B.Sc. SIXTH SEMESTER EXAMINATION, JULY 2021

THIRD YEAR [BATCH 2018-21]

ZOOLOGY (HONOURS)

Date : 10/07/2021

Time : 11.00 am – 2.00 pm

Paper : X

Full Marks : 75

Answer all the questions

Group - A

1. Define central tendency. What are the attributes of an ideal central tendency? [1+1+3]

Calculate the median age of the following people:

Age Groups (X):	0 – 5	5 – 10	10 – 15	15 – 20	20 – 25	25 – 30	30 – 35	Total
No. of people (f):	12	18	11	8	12	10	9	80

2. State why an estimate of dispersion is as important as to calculate the central tendency.

Estimate the mean and standard deviation of the following data.

Age of workers: 24, 32, 26, 21, 27, 29, 38, 41, 36, 27, 22, 30, 35, 29, 39 [1+1+3]

3. What is correlation?

With a suitable statistical method ascertain whether the following variables are correlated or not.

Leave a comment of your results.

Age (m):	5	6	7	8	9	10	11	12	13	14	15
Weight (Kg):	10	13	17	20	23	25	28	32	35	38	40

[1+3+1]

4. What is normal distribution? State how you can relate skewness with Kurtosis.

First four moments about mean of a distribution are 0, 2.5, 0.7 & 18.75.

Find the coefficients of Skewness and Kurtosis. [1+2+2]

5. State why a high level of significance, say 95%, is set while making a decision about null hypothesis.

Some light traps were set for a pest insect abundance study.

The numbers of insects trapped in each trap were as follows.

Test whether timing has any effect on the insect abundance.

6-00 to 8-00 PM:	17	20	18	25	17	18	16	13	17
8-00 to 10-00 PM:	16	26	22	36	21	28	25	20	36

[1+4]

Group - B

6. Distinguish between Kusumi and Rangini.

What is integrated fish farming?

What is fungus garden?

[2+2+1]

7. Mention one merit and one demerit of induced breeding of fish.

How does *Scripophaga* damage paddy?

What is damage boundary?

[2+2+1]

8. State two problems for implementing IPM.

What is 'Pusa Bin'? Why is it significant in controlling stored grain pest?

Define Capnophilism.

[2+(1+1)+1]

9. What are the major concerns for treating *Bandicota* as a major pest?

Mention the usages of 'fish flour' and 'isinglass'.

What is Shellac?

[2+2+1]

10. Differentiate between EIL and ETL.

Write one advantage and one disadvantage of fish polyculture.

Name an apodan fish (with scientific name) of India.

[2+2+1]

11. State two physical controls for *Heliothis*.

Mention the composition of lac.

Name a chemical compound for controlling white ant.

[2+2+1]

Group - C

12. What are reasons behind the swarming of honey bees?

Enumerate the structure of a natural bee hive.

[2+3]

13. Define the major honey flow period and the honey dearth period.

What is bee wax?

What are the uses of propolis?

[(1.5+1.5)+1+1]

14. Define voltinism.

Illustrate the structure of a silk gland with labelled diagram.

[1+(2+2)]

15. What do you mean by renditta and denier?

What is chasam?

How can uzifly damage silk production?

[(1+1)+1+2]

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