

2015

ZOOLOGY

[Honours]

PAPER — IV

Full Marks : 90

Time : 4 hours

*The figures in the right-hand margin indicate marks
Candidates are required to give their answers in their
own words as far as practicable*

Illustrate the answers wherever necessary

GROUP — A

Answer any two questions of the following : 15×2

1. Define Pollutants. Differentiate between biodegradable and non-biodegradable pollutants. Briefly describe the nature, sources and effects of major air pollutants with reference to metropolitan cities.

2 + 3 + 3 + 3 + 4

(Turn Over)

2. How does a sample differ from population in biometry? Define standard deviation, standard error and variance mentioning equations. Describe X-Y curves and pie-chart with suitable diagrams. $3 + 6 + 6$
3. Give a brief account of the life history, nature of damage caused and control about a stored grain pest with diagram. $8 + 3 + 4$
4. What is a carp? Mention the difference between major and minor carps with example. Briefly describe the intensive breeding of carp with illustrations. $2 + 3 + 10$
5. What are "Null Hypothesis" and "level of significance". 10 students were given a certain course of training to perform a certain test. Before training their scores were 70, 27, 57, 55, 63, 54, 56, 68, 43 and 34 and after training their scores in the same order were 74, 40, 58, 58, 57, 66, 68, 42, 45 and 46 respectively. Examine if any significant increase in the performance due to training [$t_{(0.05/9)} = 2.10$]. $1\frac{1}{2} + 1\frac{1}{2} + 12$

6. Write short notes on any *three* of the following : 5 × 3
- (i) Movements against big dams
 - (ii) Analysis of variance
 - (iii) Acute and chronic toxicity
 - (iv) Noise pollution
 - (v) Silk extraction.

GROUP – B

- Answer any five questions of the following : 8 × 5
7. Write notes on : 4 + 4
- (i) Common dairy breeds(cow)
 - (ii) Carp hypophysation.
8. Describe polyculture of fish in briefly. 8
9. Enumerate the causes and effects of Bhopal Gas Disaster. 3 + 5
10. Describe in brief the life history of *Apis cerana indica*. 8

11. Name the natural enemies and diseases of silk worm. Describe the measures usually taken to control the diseases of silk worm. 4 + 4
12. Define green house effect. State its impact in the environment. 3 + 5
13. What do you mean the correlation and regression. State the scatter diagram with a suitable example. 4 + 4
14. (a) Write a brief note on : CD-ROM. 3
- (b) Briefly describe the application of key board as a desktop device. 5
15. Write notes on : 4 + 4
- (i) Effect of noise pollution
- (ii) Ecohatchery.

GROUP – C

Answer any five questions of the following : 4×5

16. Define environment. What are biotic components of an environment. 2 + 2

17. Differentiate between pollutants and toxicants with example. 4
18. Describe effects of soil pollution on animals and plants. 4
19. Give a brief idea about 'Dairy Management Practices'. 4
20. Enlist the important cattle breeds of India. 4
21. Write a short note on histogram. 4
22. Write a note on O_3 whole. 4
23. Distinguish between : 2 + 2
- (a) Fry and Spawn
- (b) Sprimp and Prawn.
24. Find out the standard deviation of weight (gm) of five specimous 2, 6, 7, 12 and 8 respectively. 4
25. Comment on mouse of a computer. 4
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