

(6 Pages)

Reg. No. :

Code No. : 20256 E Sub. Code : SMZO 63/
AMZO 63

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2023

Sixth Semester

Zoology — Core

BIostatistics, Computer Applications and
Bioinformatics

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Select the name of the pictorial representation of data _____
- (a) pictogram (b) pie diagram
(c) line (d) none

2. Select the variable which occurs most frequently _____

(a) mean (b) mode
(c) median (d) none

3. The standard deviation is also known as _____

(a) standard error (b) mean square error
(c) mean (d) average

4. When both the variables are moving in the same direction, that correlation is said to be _____

(a) negative correlation
(b) positive correlation
(c) simple correlation
(d) partial correlation

5. Input device of the computer is _____

(a) keyboard (b) mouse
(c) joysticks (d) all of these

6. The main storage unit in computer system is _____

(a) Memory (b) Output unit
(c) Central unit (d) Input unit

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7. Recall the branch which deals with the application of tools of computation and interpretation of biological data.
- (a) biostatistics
 - (b) computer science
 - (c) bioinformatics
 - (d) cybersecurity
8. _____ is used to find regions of local similarity between sequences.
- (a) BLAST
 - (b) SWISS PROT
 - (c) NCBI
 - (d) ELISA
9. The PDB viewer is used to prepare, initiate and evaluate the _____ modeling process.
- (a) Alignment
 - (b) Pub med
 - (c) Homology
 - (d) None of these
10. Select the tool which is used for visualizing the proteins and nucleic acids
- (a) Ras mol
 - (b) Pub med
 - (c) Spread sheet
 - (d) None of these

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).
Each answer should not exceed 250 words.

11. (a) Identify the pie diagram.
- Or
- (b) State the types of variables.
12. (a) Explain the range.
- Or
- (b) Discuss the chi square test.
13. (a) Write a note on World Wide Web.
- Or
- (b) Write short note on generations of computers.
14. (a) Orderly arrange the scope and applications of bioinformatics.
- Or
- (b) Explain the input devices of computer.
15. (a) Explain the protein sequence data base.
- Or
- (b) Summarize the Locus link.



PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Enumerate the diagrammatic representation of data.

Or

- (b) Identify the different sampling methods.

17. (a) Discuss Karl Pearson correlation co efficient.

Or

- (b) Calculate the standard deviation for the given data.

x	10	20	30	40	50	60
f	8	12	20	10	7	3

18. (a) Write the uses of internet in biology.

Or

- (b) Write a note on role of MS power point in biology.

19. (a) Explain in detail about multiple sequence alignment.

Or

- (b) Explain pair wise sequence comparison.

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20. (a) Explain the following (i) ENTREZ (ii) Nucleic acid sequence database.

Or

- (b) Summarize : SWISS-PROT.
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