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VH—09—2024

FACULTY OF SCIENCE

B.Sc. (First Year) (Second Semester) EXAMINATION

NOVEMBER/DECEMBER, 2024

(New Pattern)

BIOINFORMATICS

Paper CCBI-1B

(Basics of Biochemistry)

(Friday, 29-11-2024)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—75

N.B. :— (i) All questions are compulsory.

(ii) All questions carry equal marks.

(iii) Draw neat and well labelled diagrams if necessary.

1. Describe in detail concept of acid and base. 15

Or

(a) Give an account on concept of atom. 8

(b) Discuss role of lipids. 7

2. Explain in detail classification of carbohydrates. 15

Or

(a) Give an account on structure and linkages in disaccharides. 8

(b) Discuss lipoproteins. 7

P.T.O.

WT

(2)

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3. Give a detailed account on classification of amino acids. 15

Or

(a) Discuss tertiary structure of protein. 8

(b) Discuss biological role of enzymes. 7

4. Describe in detail structure of DNA. 15

Or

(a) Explain types of RNA. 8

(b) Give an account on nucleic acid. 7

5. Write short notes on (any *three*) : 3×5=15

(a) Concept of atom

(b) Protein family

(c) Peptides

(d) Classification of protein based on shape

(e) Glycoproteins.

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VH—23—2024

FACULTY OF SCIENCE

B.Sc. (First Year) (Second Semester) EXAMINATION

NOVEMBER/DECEMBER, 2024

(New Course)

BIOINFORMATICS

Paper CCBI-3B

(Basics of Biocomputing)

(Wednesday, 4-12-2024)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—75

N.B. :— (i) All questions are compulsory.

(ii) All questions carry equal marks.

(iii) Draw well labelled diagrams wherever necessary.

1. Explain the development of computer in context with generations. 15

Or

(a) Explain the classification of computers. 8

(b) What is the programming language concept ? 7

2. Elaborate on various input and output devices. 15

Or

(a) Discuss on various units of a computer system. 8

(b) Explain memory and its types. 7

P.T.O.

WT

(2)

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3. Discuss about storage devices with their types. 15

Or

(a) Explain ROM and its types. 8

(b) Elaborate on Hard disk with diagram. 7

4. What is DOS ? Explain DOS commands with examples. 15

Or

(a) Explain files and directories in DOS. 8

(b) What are the elements of windows desktop ? 7

5. Write short notes on (any *three*) : 3×5=15

(a) Linux

(b) MS-Excel

(c) CPU

(d) Notepad

(e) Operating System.

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VH—15—2024

FACULTY OF SCIENCE

B.Sc. (Second Semester) EXAMINATION

NOVEMBER/DECEMBER, 2024

(New Course)

BIOINFORMATICS

Paper-CCBI-2B

(Basics of Genetics)

(Monday, 2-12-2024)

Time : 10.00 a.m. to 1.00 p.m.

Time—3 Hours

Maximum Marks—75

N.B. :— (i) All questions are compulsory.

(ii) All questions carry equal marks.

1. Describe in detail Mendelian laws of Inheritance. 15

Or

(a) Write a note on lethality with examples. 8

(b) Explain in detail Test cross & Back cross. 7

2. Describe in detail Cri-du-Chat and Down syndromes. 15

Or

(a) Describe in detail sex-linked disease with example. 8

(b) Write a note on Sex Linkage. 7

P.T.O.

WT

(2)

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3. Describe in detail classical & modern gene concepts. 15

Or

(a) Write a note on Euchromatin and Heterochromatin. 8

(b) Explain in detail Transformation. 7

4. Describe in detail structural and numerical aberrations involving chromosomes. 15

Or

(a) Write a note on Cytoplasmic Male Sterility. 8

(b) Explain in detail Gamma garden. 7

5. Write short notes on (any *three*) : 15

(a) Chemical mutagens

(b) Evolution in plants

(c) Scope and significance of genetics

(d) Hardy-Weinberg equilibrium

(e) Lampbrush chromosome.

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VH—04—2024

FACULTY OF SCIENCE

B.Sc. (First Year) (Second Semester) EXAMINATION

NOVEMBER/DECEMBER, 2024

(New Course)

BIO-INFORMATICS

Paper-AECBI-2A

(Business Communication)

(Wednesday, 27-11-2024)

Time : 10.00 a.m. to 1.00 p.m.

Time—3 Hours

Maximum Marks—75

N.B. :— (i) All questions are compulsory.

(ii) All questions carry equal marks.

1. What aspects do we consider while talking about a place ? 15

Or

(A) Narrate your senior college's first day. 8

(B) Describe your favourite recipe. 7

2. Solve any *three* sub-questions among the following : 15

(A) Rewrite sentences with correct form of the word : 5

(a) Clothes that are lose/loose are comfortable but often not flattering.

(b) Please do not lie/lay on that sofa.

(c) Karen said that her chocolate desert/dessert was delicious.

(d) I refused to accept/except the performance evaluation.

(e) That breakfast you fixed this morning was good/well.

P.T.O.

- (B) Give meaning of the following idioms and phrases : 5
- (a) Bite the bullet
 - (b) The ball is in your court
 - (c) Cut to the chase
 - (d) Actions speak louder than words
 - (e) Keep an eye on the ball.
- (C) Give Antonyms of each word : 5
- (a) Wealthy
 - (b) Important
 - (c) Knowledgeable
 - (d) Eccentric
 - (e) Worsen.
- (D) Give one word substitution for the following : 5
- (a) A person who studies the weather.
 - (b) A story that can't be believed.
 - (c) The art of beautiful handwriting.
 - (d) A book containing words and their definitions.
 - (e) The act of judging someone or something to be worthless or of little value.

WT

(3)

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3. Discuss various types of Reading Skills to do comprehension of text. 15

Or

- (A) Fill in the blanks with the appropriate word from the given options : 8

- (1) Earth, our home, is the third planet the sun.
(by/from/in/of)
- (2) It's the onlyknown to have life. (Planet, Moon, Satellite, Surface)
- (3) Earth has a diameter of roughly 8,000 miles and is because gravity pulls matter into a ball, (Oval/Round/Square/Uneven)
- (4) About a fifth of Earth's atmosphere consists of oxygen, produced by (animals/humans/plants/living things)

- (B) What is Para-jumble ? How to solve para-jumbles ? 7

4. Discuss elements and some tips to write an effective Research Paper. 15

Or

- (A) Write complain email to Sales Manager, ATD Services, Pune for supplying defective computers. 8

- (B) Draft Minutes of the 35th General Meeting of the Board of Directors of NDTC Industry, Aurangabad. 7

P.T.O.

WT

(4)

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5. Write short notes on any *three* :

15

- (A) Asking for opinions
- (B) Tools to improve spellings
- (C) Objectives of Meeting Agenda
- (D) Aims of Scientific Research
- (E) Tips to write Short Stories.

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