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GJ—32—2023

FACULTY OF SCIENCE

B.Sc. (Second Semester) EXAMINATION

APRIL/MAY, 2023

(New Course)

BIOINFORMATICS

(Basic of Biocomputing)

(Friday, 28-04-2023)

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.

(iii) Draw diagrams wherever necessary.

1. Write in detail about input and output devices in computing. 15

Or

(a) Give an account on programming languages. 8

(b) Describe in detail about block diagram of computer. 7

2. Write in detail about classification of computers. 15

Or

(a) What is computer memory ? Describe its types. 8

(b) Describe in brief about storage devices. 7

3. What is Operating System ? Describe about Windows OS in detail. 15

Or

(a) Describe about windows accessories in detail. 8

(b) What are DLL and INI files ? 7

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4. Write about MS-Word and how it's useful in different field. 15

Or

(a) Describe in detail about MS-PowerPoint. 8

(b) Write about MS-Excel and its application. 7

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

(a) MS-Access

(b) Cache Memory

(c) Supercomputer

(d) Windows elements

(e) Linux installation.

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GJ—12—2023

FACULTY OF SCIENCE

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

APRIL/MAY, 2023

(New Course)

BIOINFORMATICS

Paper—CCBI-1B

(Basics of Biochemistry)

(Monday, 24-04-2023)

Time : 2.00 p.m. to 5.00 p.m.

Time—3 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. Describe in detail concept of Acid and Base. 15

Or

(a) Write a note on Buffers. 8

(b) Write a note on structure of Atom. 7

2. What are carbohydrates ? Give their classification and function. 15

Or

(a) Write a note on fatty acids. 8

(b) Write a note on glycoprotein. 7

3. Explain in detail classification and properties of amino acids. 15

Or

(a) Write a note on structured levels of protein. 8

(b) Write a note on Biological role of enzymes. 7

4. Describe in detail structure and function of Nucleic acids. 15

Or

(a) Write a note on types of RNA. 8

(b) Write a note on forms of DNA. 7

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

(a) Chiral interactions

(b) Glycolipids

(c) Peptide bonds

(d) Nucleotides

(e) Nucleoside.

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FACULTY OF SCIENCE

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

APRIL/MAY, 2023

(New Course)

BIOINFORMATICS

(Basics of Genetics)

(Wednesday, 26-04-2023)

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

Time—3 Hours

Maximum Marks—75

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

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

1. Describe in detail different types of crossing over. 15

Or

(a) Explain scope and significance of genetics. 8

(b) Describe laws of Mendel based on monohybrid cross. 7

2. Describe in detail symptoms, genetic cause and diagnosis of Klinefelter syndrome. 15

Or

(a) Write genetic cause and symptoms of Cri-du-chat syndrome. 8

(b) Describe cytoplasmic male sterility. 7

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3. Describe in detail structure and types of chromosomes. 15

Or

(a) Describe bacterial conjugation process. 8

(b) Explain transduction process. 7

4. Describe in detail economic benefits of induced mutation in plants, animals and microbes to man. Give examples. 15

Or

(a) Describe structural and numerical aberrations in chromosomes. 8

(b) Write *three* examples of 'evolution in plants by mutation'. 7

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

(i) Cytological inheritance

(ii) Hardy Weinberg equilibrium

(iii) Bacterial transformation

(iv) Dihybrid cross

(v) Lampbrush chromosome.

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GJ—05—2023

FACULTY OF SCIENCE

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

APRIL/MAY, 2023

(New Course)

BIOINFORMATICS

Paper—AECBI-2A

(Business Communication)

(Thursday, 20-4-2023)

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

Time—3 Hours

Maximum Marks—75

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

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

1. Write a short descriptive passage about your favourite tourist spot. 15

Or

(a) How to describe a person in English ? 8

(b) How to describe an object ? Explain with the example of your cell phone. 7

2. How to spell correctly ? Describe in detail drop the 'e' rule, the 'i' before 'e' rule and 'y' to 'i' rule. 15

Or

(a) Write *one* word for the following phrases : 8

(i) One who is not sure about God's existence

(ii) A person who deliberately sets fire to a building

(iii) One who does a thing for pleasure and not as a profession

(iv) One who makes an official examination of accounts

- (v) One who is bad in spellings
- (vi) One who feeds on human flesh
- (vii) The art of practice of garden cultivation and management
- (viii) One who supervises in the examination hall.
- (b) Write antonyms of the words given below : 7
- (i) Accept
- (ii) Arrive
- (iii) Dim
- (iv) Guilty
- (v) Humble
- (vi) Love
- (vii) Sink.
3. Describe in detail structural and oral approach for understanding English. 15
- Or*
- (a) What are Parajumbles ? Write tricks to solve parajumbles into their proper sequence. 8
- (b) What is cloze test ? 7
4. How to write a research paper ? Explain different sections of a research paper. 15
- Or*
- (a) How to write meeting notices ? 8
- (b) How to write minutes of a meeting ? 7

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5. Write short notes on any *three* :

3×5=15

- (i) Meeting agenda
- (ii) Email writing for jobs
- (iii) Writing moral stories
- (iv) Expression opinions
- (v) Talking about recipes.

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