

Seat No.	
-------------	--

B.Sc.(Part-III) (Semester-VI) (CBCS) Examination, March - 2023

ENGLISH (Compulsory) (Paper - IV)

English for Communication

Sub. Code : 81667

Day and Date : Tuesday, 06 - 06 - 2023

Total Marks : 40

Time : 10.30 a.m. to 12.30 p.m.

- Instructions :** 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q1) A) Choose the appropriate answer and complete the following sentences: [3]

- i) Buffalo bill charges the Indians _____ buck a head to enter.
a) 5
b) 12
c) 20
d) 7
- ii) The earth and _____ continue to rise up.
a) Tree
b) Stone
c) Women
d) Grass
- iii) _____ asks Govind Singh to go to the x-ray institute.
a) The general manager
b) The accountant
c) An ex-compounder
d) His wife

B) Answer the following questions in one word\phrase\sentence each: [3]

- i) What did Barr.P.G.Patil think when he saw the Blackburns?
ii) Where was Lachmi at the beginning of the story?
iii) What could Granny's piercing eyes reach straight?

P.T.O.

Q2) A) Answer the following questions in three to four sentences each (2 out of 3) [4]

- i) Where did Barrister P.G.Patil visit during his educational tour?
- ii) What kind of mad things does Govind Singh do after he receives the letter?
- iii) How was the absence of Granny felt by the poetess?

B) Write a short note on the following in about 7-8 sentences. (Any One) [4]

- i) The absence of Granny in the bouse
- ii) Sir Mohan Lal

C) Do as directed: [2]

- i) Antonym of “Efficient”.
- ii) Synonym of “Solicitude”.

Q3) A) Build up a short piece of Group Discussion on the following topics making use of expressions and interactions used in Group Discussion. [8]

- i) Stay at home, stay safe.

OR

- ii) Indian Television channels expose us to Indian ways of life

B) You are planning a family trip to your favourite place. Make notes of what you must do to get most out of this trip. Use the ‘mind mapping’ technique for this purpose. [8]

Q4) A) You happen to be the editor of and English newspaper published from Maharashtra. You are expected to write an editorial on death of a famous film/sports personality. [8]

OR

B) As a guest editor you are supposed to write an editorial on the floods in Maharashtra to an English newspaper published from state. Develop an outline of the editorial.



Seat No.	
-------------	--

B.Sc. (Part - III) (Semester - VI) (CBCS)**Examination, March - 2023****BOTANY (Paper - XIII)****Plant Biochemistry and Molecular Biology (DSC-F25)****Sub. Code : 81680****Day and Date : Thursday, 01 - 06 - 2023****Total Marks : 40****Time : 10.30 a.m. to 12.30 p.m.**

- Instructions :**
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
 - 3) Neat diagram must be drawn wherever necessary

Q1) Select the correct alternatives from the following : [8]

- i) Disaccharides are composed of two monosaccharide's linked by.....
 - a) O - glycosidic bond
 - b) A - glycosidic bond
 - c) C - glycosidic bond
 - d) X - glycosidic bond

- ii) sugar is present in the milk of mammals.
 - a) Fructose
 - b) Lactose
 - c) Glucose
 - d) Galactose

- iii) Amino acids are a group of organic components containing.....functional groups.
 - a) One
 - b) Two
 - c) Three
 - d) Four

P.T.O.

- iv) Bile acids are.....which are useful for digestion of fats in intestine.
- a) Steroids
 - b) Alkalis
 - c) Proteins
 - d) Hydrocarbons
- v) Proteins contain % of nitrogen.
- a) 13 - 19
 - b) 50 - 60
 - c) 60 - 73
 - d) 0 - 4
- vi) The point at which the molecules has equal +ve and -ve charges is called as
- a) Electric point
 - b) Dielectric point
 - c) Trielectric point
 - d) Isoelectric point
- vii)forms the backbone of double stranded structure of DNA.
- a) Sugar and phosphate chain
 - b) Sugar phosphate and pentose sugar
 - c) Phosphate chain and nitrogen base
 - d) None of these
- viii) Adenine pairs with thymine and guanine always pairs with cytosine and vice-versa, such type pairing is called as
- a) Supplementary base pairing
 - b) Complementary base pairing
 - c) both
 - d) None of these

Q2) Attempt any Two of the following question : [16]

- a) Explain in brief classification of Lipids
- b) Describe the Protein biosynthesis in Eukaryotes.
- c) DNA replication in Eukaryotes.

Q3) Attempt any Four of the following : [16]

- a) Explain chemical properties of carbohydrates
- b) Isomerism in carbohydrates
- c) Proline biosynthesis
- d) Types of RNAs
- e) Lac operon
- f) Significance of lipids



Seat No.	
-------------	--

B.Sc. (Part - III) (Semester - VI) (CBCS) Examination, March - 2023**BOTANY****Bioinformatics, Biostatistics and Economic Botany (Paper -XIV)****Sub. Code : 81681****Day and Date : Friday, 2 - 06 - 2023****Total Marks : 40****Time : 10.30 a.m. to 12.30 p.m.**

- Instructions :**
- 1) All questions are compulsory.
 - 2) Draw neat labelled diagrams wherever necessary.
 - 3) Figures to the right indicates full marks.

Q1) Rewrite the following sentences using the correct alternatives given below.**[8]**

- a) In a phylogenetic tree, each line is called a _____.
- i) node
 - ii) tip
 - iii) branch
 - iv) leaf
- b) Term Bioinformatics was invented by _____ in 1970.
- i) Pauline Hogeweg and Ben Hesper
 - ii) Gregor Mendel
 - iii) James Watson and Francis Crick
 - iv) Ainsworth and Bisby
- c) The science of collectring and analyzing biologic or health data using statistical methods is known as _____.
- i) Biophysics
 - ii) Biochemistry
 - iii) Biostatistics
 - iv) Bioinformatics

P.T.O.

- d) The _____ is the number that occurs most often in a data set.
- i) Mode
 - ii) Mean
 - iii) Median
 - iv) Deviation
- e) _____ method is the method of statistical enumeration where all members of the population are studied.
- i) Census
 - ii) Average
 - iii) Sampling
 - iv) Survey
- f) The center of origin of wheat is _____.
- i) Southeast Asia
 - ii) Southwest Asia
 - iii) Asia Minor and Afghanistan
 - iv) None of these
- g) Feathery pinnately compound leaves are present in _____ plants.
- i) Groundnut
 - ii) Cotton
 - iii) Wheat
 - iv) Gram
- h) The dominant constituent of *Piper nigrum* that is responsible for its pungency i.e. its strong odor and taste is _____.
- i) Mandarin
 - ii) Alkaloid
 - iii) Flavonoid
 - iv) Piperine

Q2) Attempt any TWO of the following :

[16]

- a) Describe in brief the aim, scope and branches of Bioinformatics.
- b) What is biostatistics? Describe in brief the collection and presentation of data.
- c) Describe the origin, botanical name, morphology, sources and economic importance of Groundnut.

Q3) Attempt any FOUR of the following :

[16]

- a) Protein Information Resource (PIR)
- b) Standard Deviation
- c) Chi- square test
- d) Economic importance of Gram
- e) Morphology of Clove
- f) Economic importance of Tea



101

Seat No.	
-------------	--

**B.Sc. (Part - III) (Semester - VI) (CBCS) Examination,
March - 2023**

**BOTANY (Paper - XVI)
Biofertilizers and Herbal Drug Technology
Sub. Code : 81683**

Day and Date : Monday, 05 - 06 - 2023

Total Marks : 40

Time : 10.30 a.m. to 12.30 p.m.

- Instructions :
- 1) All questions are compulsory.
 - 2) Draw neat and labeled diagrams wherever necessary.
 - 3) Figures to the right indicate full marks.

Q1) Rewrite the following sentences by choosing correct alternatives : [8]

- i) The term Pharmacognosy is coined by _____.
 - a) C.A. Seydler
 - b) Oedum
 - c) Hooker
 - d) Watson

- ii) In root nodules *Rhizobium* exists in various pleomorphic forms called as _____.
 - a) plasmids
 - b) mesosomes
 - c) solanoids
 - d) bacterioids

- iii) *Azolla* helps to add the _____ in the soil.
 - a) Magnesium
 - b) Nitrogen
 - c) Potassium
 - d) Calcium

P.T.O.

- iv) In preparation of herbal medicine _____ step is not involved.
- a) Identification
 - b) Authentication
 - c) Collection
 - d) Emasculation
- v) The crude drugs arranged according to their chemical nature are called _____.
- a) Serotaxonomical classification
 - b) Chemical classification
 - c) Morphological classification
 - d) Alphabetical classification
- vi) _____ is the study of crude drugs obtained from the plants, animals & mineral origin.
- a) Pharmacognosy
 - b) Phytochrome
 - c) Photosynthesis
 - d) Adultration
- vii) _____ is named as Soap nut tree.
- a) *Sapindus laurifolius*
 - b) *Arachis hypogea*
 - c) *Prunus dulcis*
 - d) *Cocos nucifera*
- viii) _____ is a medical system primarily practiced in India.
- a) Ayurveda
 - b) Unani and Yoga
 - c) Naturopathy
 - d) Homeopathy

Q2) Attempt any two of the following :

[16]

- a) Describe the applications of *Acacia concinna* and *Lawsonia inermis* in the herbal cosmetics.
- b) Discuss two methods of evaluation in adulteration of drugs.
- c) Define pharmacognosy and give the medicinal uses of Tulsi and Amla.

Q3) Attempt any four of the following :

[16]

- a) VAM.
- b) Medicinal uses of ginger.
- c) Herbal cosmetic: *Santalum album*.
- d) Green manure.
- e) Properties of Antioxidants.
- f) Blue green algae as a biofertilizer.



Seat No.	
-------------	--

B. Sc. (Part - III) (Semester - VI) (CBCS) Examination, March - 2023

BOTANY (Paper - XV)

Plant Biotechnology and Paleobotany

Sub. Code : 81682

Day and Date : Saturday, 03 - 06 - 2023

Total Marks: 40

Time : 10.30 a.m. to 12.30 p.m.

- Instructions:**
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
 - 3) Draw neat labeled diagrams wherever necessary.

Q1) Rewrite the following sentences by choosing correct alternative. [8]

- i) The term biotechnology was first coined by _____ Scientist.
 - a) G.M Smith
 - b) Carl Erkey
 - c) E.P. Odum
 - d) A.G. Tansley
- ii) _____ is stored in genomic library.
 - a) RNA
 - b) Template DNA
 - c) Entire genome
 - d) Only nucleotide
- iii) PCR technique developed by _____.
 - a) Lederberge
 - b) Meselon
 - c) Kornberge
 - d) Kary mullis
- iv) _____ is known as father of tissue culture.
 - a) Bonner
 - b) Laibach
 - c) Haberlandt
 - d) Gautheret
- v) _____ medium is commonly used in tissue culture technique.
 - a) PDA
 - b) Czapek
 - c) M.S.
 - d) Agar-Agar
- vi) Geological time scale is divided in _____ era.
 - a) 05
 - b) 07
 - c) 06
 - d) 08

P.T.O.

- vii) *Sahanianthus pushpum* is a petrified _____ fossil.
- a) Flower
 - b) Fruit
 - c) Stem
 - d) Leaves
- viii) _____ plays an important role in oil and coal exploration.
- a) Seed fossil
 - b) Microfossil
 - c) Stem fossil
 - d) Macrofossil

Q2) Attempt any two of the following: [16]

- a) Explain Southern blotting technique and its applications.
- b) What is Plant tissue culture? Explain stages of micro-propagation.
- c) Describe the applications of Paleobotany in Oil and Coal exploration.

Q3) Attempt any four of the following : [16]

- a) Scope of plant biotechnology.
- b) Concept of Gene bank.
- c) DNA fingerprinting.
- d) Embryogenesis.
- e) Culture media.
- f) Geological time scale.

