

Seat	
No.	

B.Sc. (Part - III) (Semester - VI) (CBCS)

Examination, April 2024

ENGLISH (Compulsory) (Paper - IV)

Ability Enhancement Compulsory Course

English for Communication

Sub. Code : 81667

Day and Date : Monday, 01/04/2024

Total Marks : 40

Time : 2.30 p.m. to 4.30 p.m.

Instructions : 1) All questions are compulsory.

2) Figures to the right indicate full marks.

Q.1 A) Rewrite the following choosing the correct alternative:

[3]

1. Buffalo Bill stays opena day,a week.
 - a. 12 hours, 3 days
 - b. 6 hours, 2 days
 - c. 24 hours, 7 days
 - d. 20 hours, 5 days
2. Granny's piercing eyes could detect.....
 - a. any disease
 - b. uneasiness
 - c. deep buried pain
 - d. unhappiness
3. The grass lifts its head into flat by the frenzied machine.
 - a. tree
 - b. velvet
 - c. women
 - d. grass

B. Answer the following questions in one word/ phrase /sentence each. [3]

1. Who is regarded as the Booker T. Washington of Maharashtra?
2. What is Lachmi doing while chatting?
3. Who cures Govind Singh of his madness?

Q.2)A) Answer any two of the following questions in 3 to 4 sentences each. [4]

1. What does the word 'pawn' mean? Which meaning fits this poem?
2. How was the absence of Granny felt by the poetess?
3. What does the grass do?

B) Write a short note on any one of the following in about 7 to 8 sentences.[4]

1. Anna's education mission
2. Lachmi

C) Do as directed [2]

Write antonym of the following word.

'Aggressive'

Write synonym of the following word.

'Dirty'

Q.3.A) Build up a short piece of group discussion on the following topics making use of expressions and interactions used in group discussion. [8]

Save Environment means Save the Earth.

OR

Terrorism is serious problem in our country.

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]

Q.4. Write a summing up or a part of a talk/discussion/Interview/Musical programme on television. [8]

OR

You happen to be the editor of an English newspaper published from Maharashtra. You are expected to write an editorial on death of a famous film personality.

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B.Sc. (Part - III) (Semester - VI) (CBCS)

Examination, March - 2024

MICROBIOLOGY (Paper-XIII)

Microbial Genetics (DSE F-49)

Sub. Code : 81704

Day and Date : Tuesday, 26-03-2024

Total Marks : 40

Time : 02.30 p.m. to 04.30 p.m.

Instruction : 1) All questions are compulsory.

2) Figures to the right indicate full marks.

3) Draw neat diagrams wherever necessary.

Q.1) Choose the correct alternative and rewrite the sentence.

[8]

- i) *Escherichia coli* chromosome is DNA molecule.
a) Circular double stranded b) Linear double stranded
c) Circular single stranded d) Linear single stranded
- ii) The method used for paternity determination is
a) DNA fingerprinting b) PCR
c) DNA sequencing d) Electrophoresis
- iii) Gradient plate technique is used for isolation of mutant.
a) Auxotrophs b) Streptomycin resistant
c) Lactose negative d) Tryptophan less
- iv) is an organism which requires one or more growth factors.
a) Auxotroph b) Prototroph
c) Autotroph d) Heterotroph
- v) The method for DNA sequencing was developed by
a) Alek Jeffreys b) Sanger *et. Al*
c) McClintock d) Warner Arber

- vi) Nucleotides are linked together by
- a) peptide bond b) phosphodiester bond
c) glycosidic bond d) hydrogen bond
- vii) The primary acceptor of CO_2 is in carbon assimilation.
- a) ribose-5-phosphate b) ribulose-5-phosphate
c) ribulose-1-5-di-phosphate d) ribose-1-5-di-phosphate
- viii) The Z gene in Lac operon is transcribed for
- a) β -galactosidase
b) β -galactoside permease
c) β -galactoside transacetylase
d) β -galactoside dehydrolase

Q.2) Attempt any two of the following :

[16]

- i) Write in brief about classes of enzymes with their examples.
- ii) Write an essay on enzyme regulation : positive control, negative control and catabolic repression.
- iii) Explain in detail assimilation of carbon.

Q.3) Write short notes on : (Any four)

[16]

- i) Active site of enzyme
- ii) KM
- iii) Effect of temperature on enzyme activity
- iv) Structure of mRNA
- v) Peptidoglycan
- vi) ED pathway

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B.Sc. (Part - III) (Semester - VI) (CBCS)
Examination, March - 2024
MICROBIOLOGY (Paper-XV) (DSE F51)
Environmental Microbiology
Sub. Code : 81706

Day and Date : Thursday, 28-03-2024

Total Marks : 40

Time : 02.30 p.m. to 04.30 p.m.

Instruction : 1) All questions are compulsory.

2) Figures to the right indicate full marks.

Q.1) Choose the correct alternative and rewrite the sentence.

[8]

- i) is a measure of combined content of all inorganic and organic matter in wastewater.
- a) Total solids b) Total dissolved solids
c) Total volatile solids d) Total suspended solids
- ii) occurs when sewage is discharged into the water.
- a) Eutrophication b) Biosparging
c) Increase in oxygen d) Bioremediation
- iii) Trickling filter contains the thin film of organisms developed over inert material, which is called as
- a) paragleal b) phytogleal
c) zoogleal d) mesogleal
- iv) The value of Secchi depth (metres) is usually low in case of lakes.
- a) oligotrophic b) mesotrophic
c) eutrophic d) both oligo and mesotrophic
- v) The anaerobic biological method used in wastewater treatment is
- a) septic tank b) activated sludge process
c) trickling filter d) all of these

