

Q2) A) Answer the following questions in 3 to 4 Sentences each. (2 out of 3)[4]

- a) How was the end of the journey in the poem 'Enterprise'?
- b) What was the cause of George's worry in the story?
- c) How did William Morris work closely with Miss. Suskind and Mr. Regnier to solve the problem?

B) Write a short note on the following in about 7 to 8 sentences. (1 out of 2) [4]

- a) Significance of the title 'Forgetting Our Own History'.
- b) Theme of the poem, 'For Your Lanes, My Country'.

C) Do as directed. [2]

- a) Write Noun form of the following word.

Exalt

- b) Give the synonyms of the following word.

Pleasure

Q3) a) Imagine that you are going to attend the interview for the post of a sales manager in a well reputed company. Prepare a mock interview of it. [8]

OR

Write a note on different stages of preparation for the interview.

- b) Write an email to the municipal corporation complaining about the bad condition of the roads in your area. [8]

OR

Share your experiences about participation in a NSS residential camp.

Q4) Write a well organized paragraph on "My first experience of Voting".[8]

OR

Write a report about your participation in a cultural event.



SM-8

Total No. of Pages :2

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B.Sc. (Part-III) (Semester-V) (CBCS) Examination, October - 2023

MICROBIOLOGY

Virology (Paper-IX)

Sub. Code : 79708

Day and Date : Monday 23 - 10- 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]

- a) One step growth experiment was designed for the first time by _____
- i) Doermann
 - ii) Hershey and Chase
 - iii) Ellis and Delbruck
 - iv) Louis Pasteur
- b) Genome of Adenovirus has _____
- i) Palindrome ends
 - ii) Cohesive ends
 - iii) Inverted terminal repeats
 - iv) Redundant ends
- c) Genome of tobacco mosaic virus is _____
- i) Linear, Single Strained, Unsegmented, Infectious RNA
 - ii) Linear, Double Strained, Unsegmented, Infectious RNA
 - iii) Linear, Single Strained, Segmented, Infectious RNA
 - iv) Linear, Double Strained, Segmented, Infectious RNA
- d) Viroids are _____
- i) Very small viruses
 - ii) Infectious circular RNA
 - iii) Infectious proteins
 - iv) attenuated viruses

P.T.O.

- e) Latex droplet method is used for _____
- purification of only animal viruses
 - enumeration of animal viruses
 - isolation of animal viruses
 - purification of any viruses
- f) Continuous cell line isolated from carcinoma of cervix is _____
- HeLa
 - HEp-2
 - KB
 - Detroit 6
- g) Gene N of lambda phage to producing a protein which functions as _____
- anti terminator
 - translation terminator
 - Transcription terminator
 - initiator of DNA replication
- h) _____ is process in which cells undergoes indefinite no of divisions.
- Immortalization
 - Metastasis
 - Apoptosis
 - Angiogenesis

Q2) Answer the following (Any two)

[16]

- Describe in brief isolation and cultivation of animal viruses.
- Define oncogenesis explain the characteristics of cancerous cell.
- Describe in brief reproduction of Adenovirus.

Q3) Write short note on (Any four)

[16]

- Structure of HIV.
- Viroids
- Reproduction of T₄ Bacteriophage.
- General features of viral envelope.
- Explain circularization of lambda genome.
- Latex droplet method



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B.Sc. (Part - III) (Semester - V) (CBCS)
Examination, October - 2023
MICROBIOLOGY
DSE-E-50:Immunology (Paper - X)
Sub. Code : 79709

Day and Date : Wednesday, 25 - 10 - 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) Choose the correct alternative and rewrite the statement. [8]

- a) The most potent cell that present antigen and are distributed throughout the lymphoid and nonlymphoid tissues of the body are _____.
- i) Dendritic cells
 - ii) Natural Killer cells
 - iii) Macrophages
 - iv) Monocytes
- b) _____ the class of MHC which is recognized by CD4 TH cell.
- i) MHC cannot recognize T cells
 - ii) MHC III
 - iii) MHC I
 - iv) MHC II
- c) _____ mediate type I hypersensitivity.
- i) IgE
 - ii) IgD
 - iii) IgA
 - iv) IgM
- d) Cell lysis in complement pathway is initiated by _____.
- i) membrane destruction complex
 - ii) membrane degradation complex
 - iii) membrane attacking complex
 - iv) membrane lysis complex

P.T.O.

- e) Hybridoma technology was developed by _____
- i) Kohler and Milstein ii) Khorana and Nirenberg
 iii) Khorana and Korenberg iv) Beedle and Tautum
- f) Cytokines are chemical messengers which _____
- i) kill microorganisms ii) promote inflammation
 iii) cause severe pain iv) produce antibodies
- g) _____ type of hypersensitivity reaction is known as a delayed hypersensitivity reaction.
- i) Type I ii) Type II
 iii) Type III iv) Type IV
- h) During an allergic immune response, histamine is released from _____
- i) B lymphocytes ii) T lymphocytes
 iii) mast cells iv) Special lymphocytes

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

- a) Explain in detail the activation of complement by alternate pathway
- b) Describe the development of type I hypersensitivity reaction.
- c) Explain in detail the activation of B cell by T cell dependant antigen

Q3) Write short notes on any four of the following: [16]

- a) Macrophages
- b) Structure and function of thymus
- c) Activation of B cell by antigen presenting cell
- d) Properties of complements
- e) Types of Monoclonal.
- f) Properties of Interferons



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B.Sc. (Part - III) (Semester - V) Examination, October - 2023

MICROBIOLOGY

DSE-E51 : Food and Industrial Microbiology (Paper - XI)

Sub. Code : 79710

Day and Date : Friday, 27 - 10 - 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 diagrams wherever necessary.

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

- a) Flocculation process uses _____ to settle the biomass from fermented broth.
- i) Sodium hydroxide
 - ii) Sodium chloride
 - iii) Alum
 - iv) Hydrochloric acid
- b) The water activity of fresh fruits and vegetables is _____.
- i) 0.98
 - ii) 1
 - iii) 9.9
 - iv) 1.9
- c) Strain improvement is achieved by _____.
- i) Mutation
 - ii) Transformation
 - iii) Transduction
 - iv) All of these
- d) The time required to cause 90% reduction in the count of viable spores at specific temperature is called as _____.
- i) A value
 - ii) B value
 - iii) C value
 - iv) D value

P.T.O.

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B.Sc. (Part-III) (Semester-V) (CBCS) Examination, October - 2023**MICROBIOLOGY****Agricultural Microbiology (Paper-XII)****Sub. Code : 79711****Day and Date : Monday 30 - 10- 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 labelled diagrams wherever necessary.

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

- a) Generally soil profile consists of _____master horizons.
- i) Five
 - ii) Two
 - iii) Three
 - iv) Nine
- b) _____cycle is a sedimentary type of biogeochemical cycle.
- i) Carbon
 - ii) Nitrogen
 - iii) Phosphorus
 - iv) Oxygen
- c) Phosphate solubilizing bacteria is isolated on _____.
- i) Pikovskaya's medium
 - ii) Jensen's medium
 - iii) CRYEMA
 - iv) Nitrogen free mannitol agar
- d) _____is opportunistic avirulent plant symbiont.
- i) Lichen
 - ii) Trichoderma
 - iii) Azotobacter
 - iv) Aspergillus
- e) _____of the following is not a type of manure.
- i) Farmyard manure
 - ii) Compost manure
 - iii) Platinum manure
 - iv) Green manure

P.T.O.

