

**Sadhu Vaswani College ,Bairagarh, Bhopal**  
**B.Sc.I Year Annual Exam-Model Question Paper**

**Session 2024-25**

**Paper- Microbiology- Minor/Elective**

**Microbial Techniques**

Time Allowed-Three Hours

Max.Marks:75

Mini. Marks-25

Note-Attempt all questions

**Section-‘ A’**

**Objective Type Questions**

Choose correct one-

3x2=6

I. Compound Microscope was discovered by

- |                            |                   |
|----------------------------|-------------------|
| (a) Antony van Leeuwenhoek | (b) Louis Pasteur |
| (c) Jonson and Hans        | (d) None of these |

II. Direct Microscopic count can be done with the aid of

- |                     |                       |
|---------------------|-----------------------|
| (a) Newberg Chamber | (b) Anaerobic Chamber |
| (c) Mineral Oil     | (d) Olive Oil         |

III. Chemical used in method of Sterilization

- |              |                  |
|--------------|------------------|
| (a) Phenol   | (b) Alcohol      |
| (c) Halogens | (d) All of above |

**Section-‘B’**

**Short answer type questions**

**4x9=36**

**Note:- There are six questions in section-B. Attempt any four**

Q.2. What is microscope ,Explain different types of lenses used in microscope

With their uses.

Q.3. What is dye and stains, Explain the chromospheres and auxochrome concept with examples.

Q.4. Explain the nutritional requirements of bacteria.

Q.5 Define medium. What is the role of peptone, NaCl and Agar in the medium.

Q.6. Explain isolation of bacteria by streak plate technique and spread plate technique.

Q.7. Define sterilization. Explain the uses of moist heat to control microorganisms.

**Section 'C'-Long answer type questions    2x14=28**

There are four questions in section C. Attempt any two questions

Q.8. Define.....2 marks each

1. Microscope
2. Objective lens
3. Bright field microscope
4. Pure Culture
5. Magnification
6. Leuco dyes

Q.9. Explain use of enzyme production for identification of organisms.

Q.10. What is mordant, How it is classified, Explain mechanism of action with suitable example.

**Sadhu Vaswani College ,Bairagarh, Bhopal**  
**B.Sc.I Year Annual Exam-Model Question Paper**  
**Session 2024-25**  
**Biotechnology**  
**Microbiology --Minor/Elective**

Time Allowed-Three Hours

Maximum Marks-70

Minimum Marks-25

**Section-‘A’-Objective type Questions**

Q.1.Choose correct options

3X2=6

I.Scientist famous for classification of Bacteria

- (a) Ivanowsky                      (b) Bergey  
(c) Leeuwenhock                (d) Louis Pasteur

II. Who discovered Virus

- (a) Edward Jenner                (b) Leeuwenhock  
(b) Beijennck                      (d) Ivanowsky

III. Fungi growing on dung are

- (a) Autotrophous                  (b) Heterotrophus  
(c) Hydratrophus                  (d) Saprophytic

**Section-‘B’**

**Short answer type questions**

**4x9=36**

**Note:- There are six questions in section-B.Attempt any four**

Q.2 .Explain classification of Bacteria.

Q.3 .Explain Transformation in Bacteria.

Q.4. Explain mycoplasma structure with diagram.

Q.5.Explain any two methods used for measurement of microbial growth.

Q.6 .Describe fermenter and its mechanism.

**Section 'C'-Long answer type questions    2x14=28**

There are four questions in section C. Attempt any two questions

Q.7. Describe cell structure with labelled diagram

Q.8. Describe Quantification of microbial growth

Q.9. Describe chemicals used in control of microbes and there applications

Q.10. Describe gram positive and negative staining

**Sadhu Vaswani Autonomous College ,Bairagarh, Bhopal**

**B.Sc.I Year Annual Exam-Model Question Paper**

**Session 2024-25**

**BOTANY**

**Major I-Applied Botany**

Time Allowed-Three Hour

Maximum Marks-70

Minimum Marks-25

**Section-‘A’-Objective type Questions**

Q.1.Choose correct options

3X2=6

1.Father of Botany is

(a) Carolus Linnaeus

(b) Theophrastus

(c) John Ray

(d) Robert Hook

2. Deasease caused due to water pollution

(a) Malaria

(b) Diabetes

(c) Jaundice

(d) Viral Fever

3. Botanical name of Neem is

(a) Aloe barbedensis

(b) Emblica officinalis

(c) Azadirecta Indica

(d) Allium sativum

**Section-‘B’**

**Short answer type questions**

**4x9=36**

**Note:- There are six questions in section-B.Attempt any four**

Q2 . What are Pollutants

Q3. What is Phytoremediation

Q4. Explain Organogenesis

Q5 .Describe types of Plasmids

Q6 .Describe Interferon.

**Section 'C'-Long answer type questions    2x14=28**

There are four questions in section C. Attempt any two question

Q.7. Write an essay on Environmental Pollution

Q.8. Describe the role of Computer in modern Agriculture.

Q.9. Write down Botanical name, family and economic importance of

i.) Ashwagandha

ii) Tulsi

iii) Amla

iv) Giloy

Q.10 Explain Recombinant DNA Technique

**Sadhu Vaswani Autonomous College ,Bairagarh, Bhopal**

**B.Sc.I Year Annual Exam-Model Question Paper**

**Session 2024-25**

**BOTANY**

**Major II- Basic Botany**

Time Allowed-Three Hours

Maximum Marks-70

Minimum Marks-25

Section-‘A’-Objective type Questions

Q.1.Choose correct options

3X2=6

I. Father of Taxonomy is

(a) Theophrastus

(b) Carolus Linnaeus

(c) Varahmihir

(d) A.P.de Candole

II. Pitcher Plant is modification of

(a) Stem

(b) Leaf

(c) Root

(d) Flower

III .In which stage duplication of DNA takes place

(a) Prophase

(b)Metaphase

(b) Interphase

(d)Anaphase

**Section-‘B’**

**Short answer type questions**

**4x9=36**

**Note:- There are six questions in section-B.Attempt any four**

Q.2 Describe Morphological Characters of Fungi

Q.3 Describe Verticillaster inflorescence

Q.4 Give the example of the following fruits

i.) Hesperidium ( ii) Berry (iii) Balausta (iv) Drupe

Q.5 Describe structure and function of nucleus

Q.6 Describe nutrition in Fungi

**Section 'C'-Long answer type questions 2x14=28**

There are four questions in section C. Attempt any two question

Q.7. Describe Alternation of Generations in Algae

Q.8 Describe Life Cycle of Riccia with diagrams

Q.9 Describe different types of Stellar Organization

Q.10 Describe the process of Conjugation in Bacteria with diagram



**Sadhu Vaswani Autonomous College ,Bairagarh, Bhopal**

**B.Sc.II Year Annual Exam-Model Question Paper**

**Session 2024-25**

**BOTANY**

**Major I- Plant Anatomy and Embryology**

Time Allowed-Three Hours

Maximum Marks-70

Minimum Marks-25

**Section-‘A’-Objective type Questions**

Q.1.Choose correct options

3X2=6

I.Cortical Vascular Bundals are present in

(a) Boerhaavia

(b) Nyctanthus

(c) Bignonia

(d) Dracaena

II.Who among the following is a scientist of Indian Embryology

(a) Prof.B.M. Johari

(b) Prof P. Maheshwari

(c) Prof.N Rangaswamy

(d) Prof.C. Sehgal

III.Embryo develops from

(a) Egg

(b) Zygote

(b) Embryo Sac

(d) Antipodal Cell

**Section-‘B’**

**Short answer type questions**

**4x9=36**

**Note:- There are six questions in section-B.Attempt any four**

Q.2 Define Tissue and their types

Q.3 Explain Dendrochronology

Q.4 Explain Microsporogenesis

Q.5 Describe types of pollination

Q.6 Explain Apomixis

**Section 'C'-Long answer type questions    2x14=28**

**There are four questions in section C. Attempt any two question**

Q.7 Explain Tunica Corpus Theory of shoot apex development

Q.8 Differentiate between internal structure of monocot and dicot stem with diagram

Q.9 Describe Secondary growth in dicot stem

Q.10 Describe the structure and development of female gametophyte

**Sadhu Vaswani Autonomous College ,Bairagarh, Bhopal**

**B.Sc.II Year Annual Exam-Model Question Paper**

**Session 2024-25**

**BOTANY**

**Major II- Industrial Botany**

Time Allowed-Three Hours

Maximum Marks-70

Minimum Marks-25

Section-‘A’-Objective type Questions

Q.1.Choose correct options

3X2=6

I. Botanical Name of Sal is

(a) *Shorea robusta*

(b) *Tectona grandis*

(c) *Acacia nilotica*

(d) *Azadirachta indica*

II.Botanical name of Rice is

(a) *Oryza sativa*

(b) *Zea mays*

(c) *Triticum vulgure*

(d) *Brassica campestris*

III.The maximum loan amount that can be availed under the scheme PMMY is

(a) 5 lakh

(b) 10 lakh

(c) 50 Thousand

(d) 1 lakh

**Section-‘B’**

**Short answer type questions**

**4x9=36**

**Note:- There are six questions in section-B.Attempt any four**

Q.2 Explain Sap wood and Heart wood

Q.3 Write down Botanical name, family and characters of palash leaves

Q.4 Explain the extraction process of neem oil

Q.5 Write down short note on natural colours

Q.6 .Describe the process of fermentation

**Section 'C'-Long answer type questions    2x14=28**

**There are four questions in section C. Attempt any two question**

- Q.7 Describe Timber yielding plants of India and their uses
- Q.8 Describe the processing method of Tea
- Q.8 Write an essay on perfume industry in India
- Q.9 Explain the process edible oil processing
- Q.10 Write an essay on sugar industry of India