

Bachelor of Science Examination: May - 2023

| Day & Date | Semester | Subject Name | Time | Code | Marks |
|----------------------|----------------------------|------------------------|----------------------------|--------|-------|
| Friday 12-05-2023 | VI (Fresh/ Repeater) | Microbial Biochemistry | 11:00 AM To 01:30 PM | 607103 | 75 |

- Instruction: 1) Question No. 5 is Compulsory.
2) Attempt any three from the remaining.
3) All questions carry equal marks.

- Q.1 a) Explain the simple chemical reaction of glucose. 10
b) Write the reducing & non-reducing sucrose. 10
- Q.2 a) Describe the sequence of reaction in glycolysis. 10
b) With the suitable structure describe pentose-phosphate pathway. 10
- Q.3 a) Explain the respiration in detail. 10
b) Write about the extraction of energy from food sources. 10
- Q.4 a) Describe the structure of beta oxidation of saturated fatty acids. 10
b) Describe in detail genetic code. 10
- Q.5 Write short notes on following (Any Three) 15
a) Glycogenesis
b) Excretion
c) GABA
d) Histamine

Bachelor of Science Examination: May - 2023

| Day & Date | Semester | Subject Name | Time | Code | Marks |
|----------------------|----------------------------|-------------------------|----------------------------|--------|-------|
| Monday 15-05-2023 | VI (Fresh/ Repeater) | Industrial Microbiology | 11:00 AM To 01:30 PM | 607104 | 75 |

- Instruction:** 1) Q. No. 5 is compulsory.
2) Attempt any three from the remaining.
3) All questions carry equal marks.

- Q.1** a) Describe the criteria for choice of recovery process. **10**
b) Explain in detail cell disruption for intracellular products. **10**
- Q.2** a) Explain methods of cultivation and establishment of cell lines. **10**
b) Write about the methods of cultivation of organ culture. **10**
- Q.3** a) Explain enzyme immobilization methods. **10**
b) What is intellectual property? Write its types. **10**
- Q.4** a) Explain in detail biomass separation from fermentation media. **10**
b) Write about the large scale cultivation procedures. **10**
- Q.5** Write a short note on following. (Any Three) **15**
a) Whole broth processing
b) GMP
c) Analytical uses and industrial uses of enzyme
d) Patent system terminologies.

Bachelor of Science Examination: June-2022

| Day & Date | Semester | Subject Name | Time | Code | Marks |
|------------------------|----------------------------|---------------|----------------------------|--------|-------|
| Thursday 02-06-2022 | VI (Fresh/ Repeater) | English - III | 10:30 AM To 11:45 PM | 600101 | 35 |

Instruction: Attempt all the question.

Q.1 Attempt any two of the following.

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- 'Wanted a Nutritionist at a multispecialty hospital in Mumbai.' The candidate should be a graduate and should have passed a certificate course in health and nutrition. Apply to the advertiser, Post Box No. 88, The Times of India, Mumbai -01.'
- Write a Complain letter to the CMHO, Jaipur Hospital, in respect to the uncleanliness prevailing in the hospital.
- You have received an application from Mr. Gupta for the post of an accountant in your firm. He has given the name of Mr. P. R. Mittal Retd. Chief Accountant winding railway, Mumbai-56. Write a letter enquiring about the character and competence of Mr. Gupta.

Q.2 a) Pollution has become a problem for all. Write an article on environmental pollution in metropolitan cities. Suppose you are a correspondent of a local newspaper.

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OR

- You are posted as an SDM in a district. Prepare a report on the pulse polio programmer carried out in the district.

Q.3 Do as directed:

- He said, "I am happy." (Change into indirect speech)
- Sita is an intelligent girl. (Add a question tag)
- Make noun:**

- 1) appear
- 2) know

d) Add prefixes:

- 1) deed
- 2) expensive

e) Marry answered correctly. (Make it interrogative)

f) Identify the kind of sentences.

- 1) Speak properly
- 2) I like you

g) You are known to be watched. (Pick out the auxiliary from the sentence).

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Bachelor of Science Examination: June 2022

| Day & Date | Semester | Subject Name | Time | Code | Marks |
|----------------------|----------------------------|-------------------------|----------------------------|--------|-------|
| Monday 06-06-2022 | VI (Fresh/ Repeater) | General Microbiology | 10:30 AM To 01:40 PM | 607101 | 75 |

Instruction: 1) Q.NO. 5 is Compulsory.
2) Attempt any three from the remaining.
3) All questions carry equal marks.

- Q.1** a) Describe concept of point mutation 10
b) Explain in detail principle and mechanism of base analogue. 10
- Q.2** a) Recombinant DNA technology. Explain it. 10
b) Write about tryptophan operon and catabolite repression. 10
- Q.3** a) Draw Structure of TMV with explanation. 10
b) Explain life cycle of T4 phage. 10
- Q.4** a) Describe in detail selection and detection of mutants replica plate technique. 10
b) Write about amplification of recombinant DNA using PCR technology. 10
- Q.5** Write a short note on following (Any Three) 15
- 1) Frame shift mutation
 - 2) Shuttle vector
 - 3) Influenza virus
 - 4) Penicillin enrichment technique

Bachelor of Science Examination: November/December - 2022

| Day & Date | Semester | Subject Name | Time | Code | Marks |
|------------------------|------------------|---------------|----------------------------|--------|-------|
| Saturday 26-11-2022 | VI (Repeater) | English – III | 02:00 PM To 03:00 PM | 600101 | 35 |

Instruction: Attempt all the questions.

Q.1 Attempt any two of the following.

- a) Write a letter to the controller, District Transport Authority complaining against the auto rickshaw drivers for charging excess fare.
- b) Write a job application letter for the post a Librarian.
- c) You are interested in taking online class from www.stdyline.com, a reputed provider of online classes in New York. Having found the site's information inadequate, write letter enquiring various details regarding the functioning of the classes.

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- Q.2**
- a) Recently you attended a seminar on 'Pollution Control' arranged by your college. Prepare a report to be published in your college magazine.

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OR

- b) Your college has celebrated 'Cleanliness Week', organizing a number of inter-house competitions and awarded the prizes in a gala function. Prepare a report.

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Bachelor of Science Examination: November/December - 2022

| Day & Date | Semester | Subject Name | Time | Code | Marks |
|------------------------|------------------|------------------------|----------------------------|--------|-------|
| Saturday 03-12-2022 | VI (Repeater) | Microbial Biochemistry | 02:30 PM To 05:00 PM | 607103 | 75 |

- Instructions: 1) All questions carry equal marks.
2) Q.5 is compulsory.
3) Attempt any three from the remaining.

- Q.1** a) Explain the mechanism of Lactose and Maltose. 10
b) Write the glycogenolysis. 10
- Q.2** a) Describe the citric acid cycle. 10
b) Write the energy transaction of metabolic pathway. 10
- Q.3** a) Explain the mechanism of nucleic acid. 10
b) Write about the transcription and protein synthesis. 10
- Q.4** a) Explain the classification of hormones. 10
b) Describe in detail oxidation of unsaturated fatty acid. 10
- Q.5** Write short notes for the following: (any 3) 15
a) Function of hormones
b) Ketone bodies
c) Dopamine
d) Essential and non – essential amino acid