

Roll No.

20005

B. Sc. (II Semester) Examination, 2019
Microbiology (Paper II)
[Microbial Physiology & Biochemistry]

Time : Three Hours]

[Maximum marks : 80

Note : Attempt any four questions from Section 'A' and any four questions from section 'B'.
Answer each question of Section 'A' within hundred (100) words. Limit your answer within the given answer book. (B answer book) should not be provided or use.

नोट :- खण्ड अ में से किन्हीं चार प्रश्नों के और खण्ड ब में से किन्हीं चार प्रश्नों के उत्तर दीजिए। खण्ड अ के प्रत्येक प्रश्न का उत्तर सौ (100) शब्दों तक सीमित रखें। सभी प्रश्नों के उत्तर आपको दी गई और उत्तर पुस्तिका में ही देने हैं। अतिरिक्त उत्तर पुस्तिका नहीं दी जायेगी / प्रयोग नहीं की जायेगी।

(Section-A)

5×4=20

1. Describe effect of pH and temperature on Enzyme action.
2. Write a note on Phosphorylation.
3. Explain transport of nutrients by active and passive transport.
4. Write comment on Gluconeogenesis.
5. Describe homo and heterolactic fermentation.
6. Write comment on peptidoglycans.
7. Explain Reverse TCA cycle.

Section-B

15×4=60

1. Write short-notes on any two :-
 - (i) Enzyme inhibition
 - (ii) Chemolithotrophy
 - (iii) Biopolymer as cell component

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(1)

(P.T.O.)

2. Describe Michaelis. Mention equation for simple enzyme.
3. Explain chemiosmotic hypothesis of ATP synthesis.
4. Describe Kreb's cycle.
5. Explain synthesis of major amino acids.
6. Write short notes on any two :—
 - (i) Ammonia assimilation
 - (ii) EMP Pathway
 - (iii) Heterotrophy

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B. Sc. (II Semester) Examination, 2019
Microbiology (Paper I)
[Algae, Fungi & Plant Pathology]

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt any four questions from Section 'A' and any four questions from section 'B'.

(Section-A)

5×4=20

Write short notes on any four :-

- (i) Nitrogen Fixation
- (ii) Eutrophication
- (iii) Mycorrhiza
- (iv) Sex-hormones in fungi
- (v) Cyanobacteria
- (vi) Fossil records or algae
- (vii) Microbial enzymes

Section-B

15×4=60

Attempt any four questions.

1. Write a detailed note on Nutrition in Fungi.
2. Describe the Biological and Economic importance of algae.
3. Enumerate Fungi is a friend or foe ?
4. Define Heterothalism in Fungi.
5. What kind of Eco-friendly approaches are being applied for plant disease control.
6. Draw a labelled diagram of algae cell and mention the functions of each organelle.
7. Explain the concept of passive and active resistance in plants.