

PD-396
(573) M.Sc. MICROBIOLOGY (THIRD SEMESTER)
Examination Dec.-2020
Compulsory/Optional
Group -
Paper - IV

Name/Title of Paper- ENZYMOLOGY AND INDUSTRIAL MICROBIOLOGY

Time:- Three Hours

Maximum Marks- 080

Minimum Passing Marks-029

नोट : दोनो खण्डों से निर्देशानुसार उत्तर दीजिए। प्रश्नों के अंक उनके दाहिनी ओर अंकित हैं।

Note: Answer From Both the Section as Directed. The Figures in the right-hand margin indicate marks.

Section-A

1. Explain the following: 1x10=10

- (a) Isoenzyme?
- (b) Define enzyme inhibition?
- (c) Action of ribo nuclease?
- (d) Coenzyme catalysis?
- (e) Feedback mechanism?
- (f) Substrate inhibition?
- (g) Monod's model?
- (h) Biopolymers?
- (i) Enzyme sensor?
- (j) Biopesticides ?

2. Answer the following in brief: 2x5=10

- (a) Write a note on effect of pH.
- (b) Application of microbial enzyme.
- (c) Write about sequential utilization.
- (d) Write a note on secondary metabolite.
- (e) Thermo-stable enzyme.

Section-B

Answer all questions: 15x4=60

Unit-I

3. Describe in detail the methods for determination of enzyme activity.

Or

Write notes on:-

- (a) Temperature inhibitors
- (b) Allosteric enzymes

Unit-II

4. Describe in detail the action of ribonuclease and chymotrypsin.

Or

Write notes on:-

- (a) Microbial enzymes in leather
- (b) Enzymes in industry

Unit-III

5. Write an essay on selection improvement and maintenance of industrial strains.

Or

Write notes on:-

- (a) Recombinant microorganisms
- (b) Substrate and toxic inhibition

Unit-IV

6. Write an essay on bio fuels.

Or

Write notes on:-

- (a) Bio preservatives
- (b) Antibiotics