

PC- 523
(574) M.Sc. MICROBIOLOGY (FOURTH SEMESTER)
Semester Examination June-2020
Optional
Group –
Paper -IV

Name/Title of Paper – Computer Fundamentals and Research Techniques

Time : Three Hours]

[Maximum Marks : 80

[Minimum Passing Marks : ...

नोट : दोनों 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. Answer the following questions:

1×10 =10

- (a) Explain CPU
- (b) Write an example too low level language.
- (c) What is mean for sample “2,4,6,8,10”.
- (d) Write formula for standard deviation.
- (e) Explain IMRaD
- (f) Define scientific writing
- (g) What is cell disintegration
- (h) Explain HPTLC
- (i) Differentiate research paper and review paper
- (j) What is Quantitative analysis.

2. Answer the following question in brief :

2×5 =10

- (a) Write a note on computer software
- (b) Explain about Parametric and non-parametric statistics.
- (c) Write about objection of research
- (d) Write a note o GC-MS
- (e) What is biological database ? Explain

SECTION-B

Answer all questions :

15×4 = 60

UNIT-I

3. Write an essay on presentation tools.

OR

Write short notes on the following :

- (a) MS-Excel
- (b) Search engines

UNIT-II

4. Calculate mean, median and mode for the data given below in the table:

Plant Height (cm)	0-10	10-20	20-30	30-40	40-50
No. of plant var.	5	10	25	30	20

OR

Write short notes on the following :

- (a) Probability distribution
- (b) Use of computers I quantitative analysis

UNIT-III

5. Write an essay on components of research paper.

OR

Write short notes on the following :

- (a) Difference between thesis and project reports.
- (b) Kinds of scientific documents.

UNIT-IV

6. Write an essay on Ion exchange chromatography.

OR

Write short notes on the following :

- (a) Capillary electrophoresis
- (b) FTIR