

M.Sc. BOTANY
THIRD SEMESTER [SPECIAL REPEAT]
RESEARCH METHODOLOGY

**SET
A**

MSB-302
[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1hr. 30 mins.

Full Marks: 35

Time: 15 mins.

Marks: 10

(Objective)

Choose the correct answer from the following:

1×10=10

- One to one interview is a type of:
a. Qualitative Research
b. Quantitative Research
c. Descriptive Research
d. Correlational Research
- Samples characteristics are called.....
a. Parameters
b. Statistics
c. Hypothetical values
d. None of the above
- Tissue culture technique was first practised by.....
a. White
b. Haberlandt
c. Halperin
d. Skoog
-is considered to be the average in research.
a. Mean
b. Median
c. Mode
d. Median
- Specific procedures and steps to obtain information is:
a. Research methodology
b. Research method
c. Research technique
d. Research tools
- During the motion, if the centre of gravity of the molecules changes, the molecule possesses.....
a. Rotational energy
b. Electronic energy
c. Vibrational energy
d. Translational energy
- Tick correct technique while writing Literature Review.
a. Kumar (2023)
b. Kumar 2023
c. R, Kumar, 2023
d. Kumar R (2023)
- Which of the following measure is used to measure the consistency of data?
a. Variance
b. Coefficient of variation
c. Standard error
d. Standard deviation
- What is a microtome?
a. A type of microscope
b. A tool used to prepare thin tissue sections
c. A method for staining tissue samples
d. A thin slice of tissue

10. t-test is applied when:

- a. Sample size is large and the population standard deviation is given
- b. Sample size is large and the population standard deviation is not given
- c. Sample size is small and the population standard deviation is not given
- d. Sample size is small and the population standard deviation is given

(Descriptive)

Time : 1 hr. 15 mins.

Marks : 25

[Answer question no.1 & any two (2) from the rest]

1. Describe the principle of *any one*: 5
 - a) UV Spectroscopy
 - b) SDS-PAGE

2. Two samples of 6 and 5 item respectively, gave the following information: 10

	Sample 1	Sample2
Mean	40	50
Standard deviation	8	10

Is the difference of means significant at 5% level of significance?
[Given, the critical values of t for 9 degrees of freedom, at 5%, is 2.26]

3. Explain sampling distribution of a statistic. If a sample of size 25 is drawn from a population of standard deviation 6, find the standard error of the sampling distribution of the sample means. 5+5=10

4. Describe briefly the principle, procedure and application of PCR. 10

5. Describe the art of scientific writing and its presentation and mention about few ethical and legal issues of Research. 8+2=10

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