

Exam. Code: 1325

Sub. Code: 9582

1128

B.Voc. (Food Processing and Preservation), 5th Semester

BFP-502: Research Methods and Statistics

(Old)

Time allowed: 3 Hours

Max. Marks: 60

Note: Attempt five questions in all, including Question No. I (Unit – I) which is compulsory and selecting one question each from Unit II - V.

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UNIT – I

I. Write short notes on:-

- i) Self Plagiarism
- ii) Random Sampling
- iii) Challenges in Qualitative Research
- iv) Importance of Research Ethical Committee (REC) in institution. (4× 3)

UNIT – II

II. a) The frequency distribution given below refers to the heights in centimeters of 120 people. Determine the mean (using assumed mean), median and mode value of the distribution:-

| Height (in cms) | No. of People |
|-----------------|---------------|
| 150-156 | 09 |
| 157-163 | 21 |
| 164-170 | 22 |
| 171-177 | 27 |
| 178-184 | 24 |
| 185-191 | 08 |
| 192-198 | 20 |

- b) According to you which measure of central tendency, best represent the values? Support your answer with example. (8,4)

III. a) What are the different types of Probability sampling methods?
b) What considerations should be taken into account for fair and unbiased sampling in research? (6,6)

UNIT – III

IV. Explain the following:-

- a) Quasi Experimental Research
- b) Correlational Research
- c) Longitudinal Research (3× 4)

V. a) Explain Bayes theorem of Probability with formula derivation?
b) A pack contains 4 Blue, 2 Red and 3 Black pens. If 2 pens are drawn at random from the pack, not replaced and then another pen is drawn. What is the probability of drawing 2 blue pens and 1 black pen? (7,5)

P.T.O.

UNIT – IV

- VI. What is sampling and the criteria to decide sample size for qualitative research? Explain various ways followed for data collection and interpretation. (12)
- VII. Write short notes on:-
- Moral values of Researcher while dealing with research.
 - Focus group discussions
 - Importance of Pilot study in qualitative research. (3× 4)

UNIT – V

- VIII. Explain the general format followed by researchers for scientific writing? Give importance of its constituent module. (12)
- IX. Enlist the guidelines for ethical and responsible conduct of research in scientific community. (12)

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| Height (in cm) | No. of Cases |
|----------------|--------------|
| 150-155 | 05 |
| 155-160 | 10 |
| 160-165 | 15 |
| 165-170 | 20 |
| 170-175 | 25 |
| 175-180 | 30 |
| 180-185 | 35 |
| 185-190 | 40 |