NAVRACHANA UNIVERSITY
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School: School of Science
Program/s: Biomedical Science
Year: 3rd **Semester:** V
Examination: End Semester Examination
Examination year: December - 2021

Course Code: BM305 **Course Name:** Biostatistics
Date: 03/12/2021
Time: 11:30 am to 01:30 pm

Total Marks: 40
Total Pages: 02

Instructions:

➔ Start each session/question on a new page.
➔ Use of a calculator is permitted: Non-programmable calculator only.
➔ Any other relevant instructions if any:NA

Q. No.	Details	Marks	CO	BTL
Q.1	**Provide short answers to the following.**	10	CO1	BT1
	1. Define data. 2. Define continuous dataset. 3. What is a fundamental advantage of an in-depth interview method for data collection? 4. Enlist two advantages of mode compared to mean. 5. What is the significance of secondary data collection? 6. Enlist essential sections of a table. 7. With reference to a normal distribution curve, define two types of skewness that can be observed in a database. 8. Write the formula of standard deviation. 9. Define sample variance. 10. What is the significance of an angular diagram compared to a histogram?	(1 x 10)	CO2	BT2
Q.2	**Explain in brief.** Any 5	10	CO1	BT1
	1. Define measure of central dispersion with example. 2. Define normal distribution and its characteristics. 3. Tabular presentation of a dataset may not be a favorable type of representation during presentations in meeting but it is highly recommended in formulating case /comprehensive reports. Why? 4. Classification of data type is essential prior to statistical scruitiny. Why? 5. Enlist crucial differences between primary data and secondary data collection methods. 6. What are the advantages of survey questionnaire method compared to an interview method during data collection?	(2 x 5)	CO2 CO3	BT2

	7. with reference to normal distribution curve, define the terms mesokurtic, platykurtic and leptokurtic.			
Q.3	Match A with B and C	10	CO1	BT1
				BT2

A	B	C
Tabular representation	Data representation with columns	Secondary data
Histogram	Class-intervals	Primary data
Focussed group discussion	Peer-reviewed essential findings	Qualitative data
Ordinal data	Overall expression of the dataset	Compact representation of quantitative data
Frequency polygon	Expert-opinion	Qualitative and primary type of data
Compound bar diagram	Non-verbal communication	Quantitative data type
Publications	Complete expression of a data set	Angular diagram
Key-information interview	Multiple datapoints from multiple samples	Basic type of data representation
Discrete data	Data arranged in order	FSSAI, FDA, CPCB
Graphical representation	Integer values	Quantitative data presentation

Q.4	**Explain in detail.** **Any 2**	10	CO1	BT1
	1. Provide a comprehensive note on data representation using tables.	(5 x 2)	CO2	BT2
	2. What are measures of central tendency? Explain each with a relevant example.		CO3	
	3. Mean represent the trend of an overall dataset, still in some cases it is not recommended for expressing an overall trend. Why? Enlist advantages and disadvantages of mean.			
	4. Enlist a comparative parameters of kurtosis and skewness.			

************End of Question Paper************