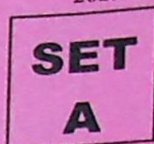


MASTER OF HOSPITAL ADMINISTRATION  
SECOND SEMESTER  
BIOSTATISTICS  
MHA – 203  
[USE OMR SHEET FOR OBJECTIVE PART]



Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

**(Objective)**

Marks: 20

*Choose the correct answer from the following:*

$1 \times 20 = 20$

- Correlation coefficient lies between
  - 0 to 1
  - 1 to 0
  - 1 to 1
  - 1 to 0
- AM\_GM\_HM
  - $\geq$
  - $\leq$
  - $>$
  - $<$
- Statistics is the science of Collection, presentation, analysis and \_ numerical data
  - Tabulation
  - Computation
  - Interpretation
  - All of the above
- Sample is a subset of
  - Data
  - Group
  - Numbers
  - Population
- Correlation is 0.5 means, there is a
  - +ve correlation
  - ve correlation
  - Zero correlation
  - None of the above
- Association between two variables is tested by
  - Correlation
  - Chi-square test
  - F-test
  - t-test
- If the information is collected from each and every individual of a population, then the method of collecting information is known as
  - Survey
  - Census
  - Sampling
  - All of the above
- Primary data are those data, which are collected for the
  - First time
  - Second time
  - Third time
  - Last time
- Null hypothesis means
  - Positive association
  - Negative association
  - No association
  - None of the above

10. Find the AM of 5,8,12,15,20  
 a. 11  
 b. 13  
 c. 12  
 d. 22
11. Find the mode of 7,5,6,7,8,7,4,6,5  
 a. 4  
 b. 7  
 c. 10  
 d. 19
12. Find the range of 70,75,60,22,58,80,36  
 a. 70  
 b. 58  
 c. 68  
 d. 28
13. Mode = ?-(2 median)  
 a. Median  
 b. 2 Median  
 c. 3 Median  
 d. None of the above
14. Which type of error is more serious?  
 a. Type-1  
 b. Type-2  
 c. Both type-1 and type-2  
 d. None of the above
15. In symmetrical distribution  
 a. Mean=median=mode  
 b. Mean<median<mode  
 c. Mean>median>mode  
 d. None
16. Age and height is  
 a. Positively correlated  
 b. Negatively correlated  
 c. Not correlated  
 d. None of the above
17. The middle value of a ordered array of numbers  
 a. Range  
 b. AM  
 c. Mode  
 d. Median
18. A questionnaire should be  
 a. Simple  
 b. clear  
 c. Multiple choice  
 d. All of the above
19. Standard deviation is a  
 a. Measures of central tendency  
 b. Skewness  
 c. Measures of dispersion  
 d. kurtosis
20. Judgement sampling is a  
 a. Probability sampling  
 b. Non-probability sampling  
 c. Random Sampling  
 d. None of the above

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**( Descriptive )**

Time : 2 Hr. 30 Mins.

Marks : 50

[ Answer question no.1 & any four (4) from the rest ]

1. Write a note on correlation. Write different types of correlation with example and graph. 10
2. Write a note on correlation. Write different types of correlation with example and graph. 10
3. Write a note on Lorenz curve. Draw a Lorenz curve from the following data. 10

Income ('000 Rs.)	No. Of persons	
	Group A	Group B
10	8	15
20	7	6
40	5	2
50	3	1
80	2	1

4. Two sample polls of votes of two candidates A and b for a public office are taken, one from among the residents of rural areas. The results are given in the adjoining table. Examine whether the nature of the area is related to voting preferences in this election. State null hypothesis and solve.(The chi-square value for 1 df is 3.841) 10

	A	B
Rural	620	380
Urban	550	450

5. What are the different methods used for collecting primary data? Write a note on drafting of a questionnaire. 10
6. Prepare a questionnaire for collecting information regarding the socio-economic condition of the people of a village. 10
7. Find the standard deviation from the following data. 10

Class interval	10-19	20-29	30-39	40-49	50-59	60-69	70-79
Frequency	3	61	223	137	53	19	4

8. Write a note on hypothesis testing and different types of errors involve in hypothesis testing. 10

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