

St. Philomena's College (Autonomous), Mysore**PG Department of Biochemistry****Question Bank (Revised Curriculum 2018 onwards)****Second Year- Forth Semester (2018 -20 Batch)****Course Title (Paper Title): Biostatistics. QP Code:54301**

Unit	SI. No	Questions	Marks
1	1.	What is a histogram? Give its significance.	2
1	2.	What are good measures of dispersion?	2
1	3.	Name any two steps involved in tests of significance.	2
1	4.	What do you mean by test of significance?	2
1	5.	What do you mean by testing of hypothesis?	2
1	6.	Expand ANOVA.	2
1	7.	Define frequency distribution.	2
1	8.	Define range.	2
1	9.	State the relation between correlation coefficient and regression coefficient.	2
1	10.	State the limits of probability	2
1	11.	Comment on: Mean number of galls on oak leaf is 5 and variance is 6.	2
1	12.	State the basic assumptions in ANOVA.	2
1	13.	What is null hypothesis?	2
1	14.	Distinguish between small and large samples.	2
1	15.	What is cumulative frequency?	2
1	16.	Define median and range.	2
1	17.	Define correlation and regression coefficient.	2
1	18.	Define probability.	2
1	19.	What is probability mass function of binomial distribution?	2
1	20.	List out the names of continuous distribution.	2
1	21.	What is degree of freedom?	2
1	22.	Define sampling method.	2
1	23.	What is correlation coefficient?	2
1	24.	Find the median of the following data 1, 2, 2, 5, 7, 8.	2
1	25.	Mention the advantages of cluster sampling method.	2
1	26.	What is conditional probability?	2
1	27.	What is cross sectional study? Give an example.	2
1	28.	What are the applications of cross sectional studies?	2
1	29.	Mention any two sampling methods with an example.	2
1	30.	Define sampling method.	2

1	31.	What is regression?	2
1	32.	What do you mean by biostatistics?	2
1	33.	Define variable.	2
1	34.	What are the methods by which the data is classified?	2
1	35.	Write any two disadvantages of stratified sampling.	2
1	36.	Expand SRS.	2
1	37.	Define data. Give an example	2
1	38.	What is simple Random Sampling?	2
1	39.	What do you understand about standard error?	2
1	40.	What is the objective of correlation analysis?	2
1	41.	Mention the types of regression line?	2
1	42.	What are the different types of regression line?	2
1	43.	Enlist the properties of probability.	2
1	44.	Write down the properties of probability.	2
1	45.	What is type-I error?	2
1	46.	What is typr-II error?	2
1	47.	What is probality density function of poison distribution?	2
1	48.	What is F-test statistic?	2
1	49.	Define correlation.	2
1	50.	Define range and mode.	2
1	51.	What is arithmetic mean?	2
1	52.	Find the median of the following data: 1,2,2,5,7,8	2
2	53.	Find the range for 89,73,84,91,87,77,94	2
2	54.	What is probability?	2
2	55.	Toss a coin for 12 times. What is the probability of getting exactly 7 heads?	2
2	56.	What is sampling?	2
3	57.	Define quantitative and qualitative data.	2
3	58.	List out the types of bar chart.	2
3	59.	Mention any two types of sampling.	2
3	60.	Write the formula for median.	2
3	61.	What is standard error?	2
3	62.	What is the meaning of level of significance	2
3	63.	What are the properties that hold the Karl Pearson's coefficient of correlation?	2
3	64.	Differentiate between sample and population.	2
3	65.	Define conditional probability	2
3	66.	What is completely randomised design?	2
3	67.	Define standard error.	2

3	68.	Find the median of the following series: 75,60,55,80,45,70,40	2
3	69.	What is F-test?	2
5	70.	Define propotional sampling.	2
5	71.	What is primary data?	2
5	72.	What is secondary data?	2
5	73.	Mention any two uses of diagrammatic representation of data.	2
5	74.	Define population and sample.	2
5	75.	What is the objective of correlation analysis?	2
5	76.	Write the spearman rank correlation coefficient formulae.	2
5	77.	Distinguish null hypothesis and alternative hypothesis	2
5	78.	Give the application of ANOVA technique.	2
5	79.	When will you apply ANOVA technique?	2
5	80.	What are the sources of secondary data?	2
5	81.	What is frequency table?	2
5	82.	Mention any two advantages of average.	2
5	83.	Write the formulae for mode.	2
5	84.	State the types of regression lines.	2
5	85.	What is the probability mass function of poison distribution?	2
5	86.	Comment on type-II error	2
5	87.	What is the principle involved design of experiments?	2
5	88.	Give the empirical formula relating mean, median and mode.	2
5	89.	List the steps involved in hypothesis testing.	2
5	90.	Define coefficient of variation.	2
5	91.	Give any two applications of Pearson distribution.	2
5	92.	What is standard deviation?	2
5	93.	What do you mean by statistics?	2
5	94.	What are the subcategories of biostatistics?	2
5	95.	What is sampling in statistics?	2
5	96.	Define constant.	2
5	97.	What do you mean by classificaion of data?	2
5	98.	How do you represent a data?	2
5	99.	How will you represent data?	2
5	100.	How will you call an average abstained arithmetically?	2
5	101.	Give the symbols for a) summation of frequencies b) arithmetic mean	2
5	102.	How is data classified?	2
5	103.	What is histogram?	2
5	104.	Give an expression relating coefficient of correlation & regression coefficients.	2

5	105.	Bring out the differences between type-I error and type-II error in hypothesis testing	2
5	106.	Mention any two properties of normal distribution curve.	2
5	107.	What is correlation?	2
5	108.	Find the range for 89,73,84,91,87,77,94	2
5	109.	Define arithmetic mean?	2
5	110.	What do you mean by regression?	2
5	111.	What is an average?	2
5	112.	Give the formula for 't' in case of comparison of two independent samples.	2
5	113.	What is sampling in statistics?	2
5	114.	What is hypothesis testing?	2
5	115.	Mention the merits of median.	2
5	116.	Mention the demerits of median.	2
5	117.	What are the types of data? Give an example.	2
5	118.	Interpret positive correlation coefficient with an example.	2
5	119.	List out the large sample test statistics.	2
5	120.	State any two merits of arithmetic mean.	2
1	121.	List out the types of frequency curves.	2
2	1.	Briefly Explain bar and multiple bar charts with suitable biological data.	5
3	2.	Briefly Explain classification and compilation of data.	5
1	3.	Briefly Explain the methods of sampling	5
5	4.	Briefly Explain the types of hypothesis testing.	5
5	5.	Briefly Explain the types of hypothesis.	5
1	6.	Calculate the modal value if the yield (tones/ha) of paddy from different fields are 6.7, 6.0, 4.9, 6.0, 5.8, 6.2, 6.0, 6.3, 4.8, 6.0, 5.7	5
3	7.	Comment on tabulation of statistical data.	5
1	8.	Compare sampling distribution and standard error.	5
1	9.	Compare the various methods of sampling	5
5	10.	Define ANOVA. Discuss the major assumptions of ANOVA.	5
5	11.	Define normal distribution. Write down the characteristic of normal distribution.	5
1	12.	Define random sample. Explain methods drawing a random sample from population.	5
1	13.	Define range, unit, population ,sample & biostatistics	5
1	14.	Define standard error and Bring out its utility.	5

1	15.	Define the following terms a) mean b)nominal data c) ratio d) central tendency e) variance	5
1	16.	Define the following terms a) population b)frequency c) cumulative frequency d) mode e) median	5
2	17.	Describe in brief the methods of drawing pie diagram	5
3	18.	Describe any two methods of data collection	5
5	19.	Describe F-test statistic	5
3	20.	Describe in brief the purpose and importance of classification of data.	5
5	21.	Describe the t-test statistic.	5
2	22.	Differentiate between histogram, pie chart & bar chart	5
3	23.	Differentiate between primary and secondary data with suitable examples.	5
3	24.	Discuss a small sample test statistic.	5
5	25.	Discuss on assumptions in which't' test can be applied.	5
1	26.	Discuss on various sampling methods with suitable examples.	5
5	27.	Discuss the descriptive and analytical aspects of cross sectional studies	5
1	28.	Discuss the effect of change of origin and scale on arithmetic mean.	5
3	29.	Discuss the methods of collection of data	5
5	30.	Discuss the properties of normal distribution curve.	5
3	31.	Describe in brief the methods of classification of data.	5
1	32.	Enlist the differences between geometric mean and harmonic mean	5
5	33.	Enlist various types of non-parametric test . Discuss its advantages and disadvantages.	5
1	34.	Enumerate the various methods of sampling. Discuss any two methods with suitable examples.	5
1	35.	Explain the role of biostatistics in modern research.	5
5	36.	Explain a) Null and Alternative hypothesis b) Type-I and Type -II error	5
5	37.	Explain ANOVA	5
5	38.	Explain ANOVA one way with an example.	5
1	39.	Explain any two types of sampling methods	5
5	40.	Explain binomial distribution	5
3	41.	Explain different methods of data classification.	5
2	42.	Explain histogram and pie chart in detail.	5
5	43.	Explain in detail about probability theory and their distribution.	5
5	44.	Explain in detail rank test.	5

5	45.	Explain level of significance and degrees of freedom.	5
5	46.	Explain mathematical and classical definitions of probability	5
5	47.	Explain one-way ANOVA	5
2	48.	Explain pie charts with suitable example	5
5	49.	Explain probability	5
5	50.	Explain probability with suitable example.	5
1	51.	Explain systematic sampling	5
4	52.	Explain the advantages of sampling over census.	5
5	53.	Explain the ANOVA for one-way classification	5
5	54.	Explain the application of X ² test.	5
5	55.	Explain the concept of regression. State the equations of two regression lines	5
4	56.	Explain the concept of sampling and sampling distribution.	5
4	57.	Explain the disadvantages of stratified sampling.	5
5	58.	Explain the following – a) Type-I and Type -II error b) level of significance	5
1	59.	Explain the following term: null hypothesis, standard error	5
5	60.	Explain the general format of ANOVA table.	5
1	61.	Explain the merits and demerits of median.	5
3	62.	Explain the nature and scope of statistical methods and their limitations.	5
5	63.	Explain the procedure for testing of hypothesis problem	5
2	64.	Explain the significance of diagrams and graphs in the presentation of data.	5
5	65.	Explain the term 'regression' and point out why do we have generally two regression lines?	5
5	66.	Explain type-I and type-II error with an example for each.	5
1	67.	Explain various techniques for sampling.	5
1	68.	Find the mean of the following data: 16, 18, 19, 21, 23, 23, 27, 29, 29, 35	5
1	69.	Find the mean of the following data: 9, 7, 11, 13, 2, 4, 5	5
1	70.	Find the mode of the following data: 0, 3, 2, 1, 3, 5, 4, 3, 42, 1, 2, 0	5
1	71.	Find the mode of the following data: 1, 7, 2, 4, 5, 9, 8, 3	5
1	72.	Find the mode of the following data: 12, 8, 4, 8, 1, 8, 9, 11, 9, 10, 12, 8	5
1	73.	Find the mode of the following data: 15, 22, 17, 19, 22, 17, 29, 24, 17, 15	5
3	74.	Give an account of collection of data.	5
5	75.	Give an account of source of errors in sample surveys and the	5

		methods of controlling the same.	
5	76.	Give an account on binomial distribution	5
1	77.	Give an account on any two types of sampling methods	5
2	78.	Give an account on graphical representation of data.	5
1	79.	Give an account on measures of central tendency.	5
1	80.	Give an account on standard error verses standard deviation	5
3	81.	Give an account on validation and standardization of methods in statistics.	5
1	82.	Give the application of biostatistics in modern research.	5
1	83.	Give the relation between mean, median and mode. Enlist the merit and demerits mode and median.	5
2	84.	How to draw a pie chart? Explain with a an example	5
1	85.	List out the types of frequency curves.	5
1	86.	List the different types of variables.	5
4	87.	Mention the various study designs and Describe in detail How you will conduct a case control study.	5
5	88.	State the probability distribution of poisson distribution. Also State its properties.	5
1	89.	The mean of 8, 11, 6, 14, x and 13 is 66. Find the value of the observation x.	5
5	90.	Toss a coin for 12 times. What is the probability of getting exactly 7 heads?	5
3	91.	What are experimental and non-experimental designs? Give their advantages & disadvantages.	5
1	92.	What are good measures of dispersion? Explain	5
1	93.	What are the advantages and disadvantages of mode? Explain	5
2	94.	What are the different methods of presentation of data?	5
5	95.	What are the merits and demerits of rank correlation? Explain	5
5	96.	What are the problems for which the tests of significance are used?	5
5	97.	What are the various steps in tests of significance includes?	5
1	98.	What are the various types of measure of dispersion?	5
1	99.	What are the various types of sampling?	5
5	100.	What do you mean by correlation? Distinguish between positive, negative and zero correlation?	5
2	101.	What do you mean by pie diagram? Draw and Explain	5

5	102.	What do you mean by test of significance and testing of hypothesis?	5
5	103.	What do you understand by probability? Describe in brief the additional rule of probability and multiplication rule of probability?	5
2	104.	What is a histogram? How it is drawn?	5
3	105.	What is census? Explain in detail	5
5	106.	What is conditional probability? Explain	5
5	107.	What is correlation? Explain its different types with illustrations.	5
5	108.	What is cross sectional study? What are its applications.	5
5	109.	What is cross sectional study? What are its applications.	5
1	110.	What is sampling? Explain the types of sampling.	5
1	111.	What is sampling? Explain the types of sampling	5
5	112.	When do we use ANOVA one-way / *99+C440 testes and What are the assumptions?	5
5	113.	Where Analysis of Variance (ANOVA) is used. Explain with suitable example.	5
5	114.	Write a note on binomial distribution and its application	5
5	115.	Write a note on Chi-square independent test	5
5	116.	Write a short note on regression coefficient.	5
5	117.	Write an account on ANOVA	5
2	118.	Write an essay on diagrammatic representation of data	5
1	119.	Write an essay on theoretical frequency distribution.	5
1	120.	Write Briefly on applications of standard deviation	5
1	121.	Write Briefly on concepts of standard deviation	5
5	122.	Write Briefly on regression	5
5	123.	Write down the important properties of normal distribution.	5
3	124.	Write note on classification of data	5
1	125.	Write note on cluster sampling methods	5
5	126.	Write short note on correlation coefficient	5
5	127.	Write short note on different types of ANOVA.	5
5	128.	Write short note on F-test	5
5	129.	Write short note on F-test for equality of two population variance.	5
5	130.	Write short note on normal distribution.	5
5	131.	Write short note on one way ANOVA	5
5	132.	Write short note on one way ANOVA	5
4	133.	Write short note on quasi experimental design.	5
2	134.	Write short note on scatter diagram	5

1	135.	Write short note on simple random sampling.	5																						
5	136.	Write short note on student t-test statistic.	5																						
5	137.	Write short note on Z-test statistics.	5																						
5	138.	Write the properties of t-Distribution	5																						
3	139.	Explain the scaling technique in statistics	5																						
3	140.	Explain questionnaire method of data collection.	5																						
1	141.	Calculate the mean and standard deviation for the data relating of soil sample. pH of soil sample: 6.7, 6.8, 6.9, 6.9, 7.0, 7.3, 7.3, 7.4, 7.4 , 7.5	5																						
1	142.	The incubation period of small pox recorded on 10 patients is Given below. Calculate the variance and coefficient of variance. Incubation period: 10, 24, 13, 11,15,10,9,12,10, 16	5																						
1	143.	Find median of the data : 36,28,11,5,41,86,3 & 8	5																						
5	144.	Obtain the rank correlation coefficient for the following data: <table border="1" style="margin-left: 20px;"> <tr> <td>X</td> <td>48</td> <td>33</td> <td>40</td> <td>9</td> <td>16</td> <td>16</td> <td>65</td> <td>24</td> <td>16</td> <td>57</td> </tr> <tr> <td>Y</td> <td>13</td> <td>13</td> <td>24</td> <td>6</td> <td>15</td> <td>5</td> <td>20</td> <td>9</td> <td>6</td> <td>19</td> </tr> </table>	X	48	33	40	9	16	16	65	24	16	57	Y	13	13	24	6	15	5	20	9	6	19	5
X	48	33	40	9	16	16	65	24	16	57															
Y	13	13	24	6	15	5	20	9	6	19															
1	145.	The daily wages of 50 employees in an organization are Given below. Find the mean daily wages <table border="1" style="margin-left: 20px;"> <tr> <td>Daily wages</td> <td>100-150</td> <td>150-200</td> <td>200-250</td> <td>250-300</td> <td>300-350</td> </tr> <tr> <td>No. of workers</td> <td>12</td> <td>13</td> <td>17</td> <td>8</td> <td>15</td> </tr> </table>	Daily wages	100-150	150-200	200-250	250-300	300-350	No. of workers	12	13	17	8	15	5										
Daily wages	100-150	150-200	200-250	250-300	300-350																				
No. of workers	12	13	17	8	15																				
1	146.	Find mean , median and mode for the following data of tomatoes in 100 tomato plants <table border="1" style="margin-left: 20px;"> <tr> <td>no. of tomatoes per plant</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> </tr> <tr> <td>no of plant</td> <td>5</td> <td>7</td> <td>10</td> <td>17</td> <td>22</td> <td>15</td> <td>10</td> <td>86</td> </tr> </table>	no. of tomatoes per plant	1	2	3	4	5	6	7	8	no of plant	5	7	10	17	22	15	10	86	5				
no. of tomatoes per plant	1	2	3	4	5	6	7	8																	
no of plant	5	7	10	17	22	15	10	86																	
1	147.	Calculate the modal value if the yield (tonnes/ha) of paddy from different fields are 6.7, 6.0, 4.9, 6.0, 5.8, 6.2, 6.0, 6.3, 4.8, 6.0, 5.7	5																						
1	148.	The table shows the number of colonies of known microorganisms grown on ten plates. Calculate the arithmetic mean <table border="1" style="margin-left: 20px;"> <tr> <td>Plate No</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> </tr> <tr> <td>No of colonies</td> <td>75</td> <td>95</td> <td>60</td> <td>80</td> <td>95</td> <td>110</td> <td>115</td> <td>130</td> <td>140</td> <td>160</td> </tr> </table>	Plate No	1	2	3	4	5	6	7	8	9	10	No of colonies	75	95	60	80	95	110	115	130	140	160	5
Plate No	1	2	3	4	5	6	7	8	9	10															
No of colonies	75	95	60	80	95	110	115	130	140	160															

1	149.	A survey of public health department reported that the following data. compute the a) arithmetic mean b) median	5																		
		<table border="1"> <tr> <td>No of children</td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>no of families</td> <td>1</td> <td>50</td> <td>72</td> <td>50</td> <td>28</td> <td>12</td> <td>83</td> </tr> </table>	No of children	0	1	2	3	4	5	6	no of families	1	50	72	50	28	12	83			
No of children	0	1	2	3	4	5	6														
no of families	1	50	72	50	28	12	83														
1	150.	Calculate the arithmetic mean from the following data:	5																		
		<table border="1"> <tr> <td>blood urea (mg/dl)</td> <td>20</td> <td>30</td> <td>40</td> <td>50</td> <td>60</td> <td>70</td> </tr> <tr> <td>no of patients</td> <td>8</td> <td>12</td> <td>20</td> <td>10</td> <td>6</td> <td>4</td> </tr> </table>	blood urea (mg/dl)	20	30	40	50	60	70	no of patients	8	12	20	10	6	4					
blood urea (mg/dl)	20	30	40	50	60	70															
no of patients	8	12	20	10	6	4															
1	151.	Calculate the median and mode of the data. Find the arithmetic mean given below.	5																		
		<table border="1"> <tr> <td>No of petriplate</td> <td>10</td> <td>20</td> <td>30</td> <td>40</td> <td>50</td> <td>60</td> </tr> <tr> <td>No of organism observed</td> <td>8</td> <td>23</td> <td>45</td> <td>65</td> <td>75</td> <td>80</td> </tr> </table>	No of petriplate	10	20	30	40	50	60	No of organism observed	8	23	45	65	75	80					
No of petriplate	10	20	30	40	50	60															
No of organism observed	8	23	45	65	75	80															
1	152.	Calculate the median for the following data	5																		
		<table border="1"> <tr> <td>Rupees</td> <td>10</td> <td>20</td> <td>30</td> <td>40</td> <td>50</td> <td>60</td> <td>70</td> <td>80</td> </tr> <tr> <td>Frequency</td> <td>15</td> <td>35</td> <td>64</td> <td>84</td> <td>96</td> <td>120</td> <td>192</td> <td>256</td> </tr> </table>	Rupees	10	20	30	40	50	60	70	80	Frequency	15	35	64	84	96	120	192	256	
Rupees	10	20	30	40	50	60	70	80													
Frequency	15	35	64	84	96	120	192	256													
1	153.	The following data represents the internal test of biostatistics marks, so find the a)Average b)Median c) Mode marks	5																		
		<table border="1"> <tr> <td>Marks in biostatistics</td> <td>10</td> <td>20</td> <td>30</td> <td>40</td> <td>50</td> </tr> <tr> <td>No of students</td> <td>3</td> <td>12</td> <td>26</td> <td>36</td> <td>40</td> </tr> </table>	Marks in biostatistics	10	20	30	40	50	No of students	3	12	26	36	40							
Marks in biostatistics	10	20	30	40	50																
No of students	3	12	26	36	40																
1	154.	From the following data of the marks obtained by 60 students of a class. Calculate the arithmetic mean.	5																		
		<table border="1"> <tr> <td>marks</td> <td>20</td> <td>30</td> <td>40</td> <td>50</td> <td>60</td> <td>70</td> </tr> <tr> <td>No of students</td> <td>8</td> <td>12</td> <td>20</td> <td>10</td> <td>6</td> <td>4</td> </tr> </table>	marks	20	30	40	50	60	70	No of students	8	12	20	10	6	4					
marks	20	30	40	50	60	70															
No of students	8	12	20	10	6	4															
1	155.	Find the median value from the following data:	5																		
		<table border="1"> <tr> <td>X</td> <td>1</td> <td>3</td> <td>5</td> <td>6</td> <td>8</td> </tr> <tr> <td>f</td> <td>7</td> <td>9</td> <td>20</td> <td>4</td> <td>2</td> </tr> </table>	X	1	3	5	6	8	f	7	9	20	4	2							
X	1	3	5	6	8																
f	7	9	20	4	2																
1	156.	Calculate Coefficient of Variation from the data of yield of 80 mango trees in an orchard.	5																		
		<table border="1"> <tr> <td>yield of trees(kg)</td> <td>below 20</td> <td>below 40</td> <td>below 60</td> <td>below 80</td> <td>below 100</td> </tr> <tr> <td>No. of trees</td> <td>8</td> <td>20</td> <td>50</td> <td>70</td> <td>80</td> </tr> </table>	yield of trees(kg)	below 20	below 40	below 60	below 80	below 100	No. of trees	8	20	50	70	80							
yield of trees(kg)	below 20	below 40	below 60	below 80	below 100																
No. of trees	8	20	50	70	80																

1	157.	Find the missing frequency for the following distribution if the mean is 12.9	5																								
		<table border="1"> <tr> <td>Class Interval</td> <td>0-5</td> <td>5-10</td> <td>10-15</td> <td>15-20</td> <td>20-25</td> </tr> <tr> <td>Frequency</td> <td>3</td> <td>?</td> <td>8</td> <td>5</td> <td>4</td> </tr> </table>	Class Interval	0-5	5-10	10-15	15-20	20-25	Frequency	3	?	8	5	4													
Class Interval	0-5	5-10	10-15	15-20	20-25																						
Frequency	3	?	8	5	4																						
1	158.	The distribution of a certain disease reported during the year of 2015 in Karnataka state as shown below: calculate : a) Median b) Mode c) Range	5																								
		<table border="1"> <tr> <td>Age</td> <td>5-14</td> <td>15-24</td> <td>25-29</td> <td>30-34</td> <td>35-39</td> </tr> <tr> <td>No. of cases</td> <td>3</td> <td>10</td> <td>12</td> <td>8</td> <td>7</td> </tr> </table>	Age	5-14	15-24	25-29	30-34	35-39	No. of cases	3	10	12	8	7													
Age	5-14	15-24	25-29	30-34	35-39																						
No. of cases	3	10	12	8	7																						
2	159.	In an experiment observed that the number of women of age 40-44 years in different categories of waist hip ratio(WHR) recorded in the following table: Frequency distribution of WHR which recorded in 60 women of age 40-44 years For those construct a) Frequency curve b) less than and more than cumulative frequency curve	5																								
		<table border="1"> <tr> <td>WHR</td> <td>0.70-0.80</td> <td>0.80-0.90</td> <td>0.90-1.00</td> <td>1.00-1.10</td> <td>1.10-1.20</td> </tr> <tr> <td>No of women</td> <td>5</td> <td>13</td> <td>22</td> <td>10</td> <td>7</td> </tr> </table>	WHR	0.70-0.80	0.80-0.90	0.90-1.00	1.00-1.10	1.10-1.20	No of women	5	13	22	10	7													
WHR	0.70-0.80	0.80-0.90	0.90-1.00	1.00-1.10	1.10-1.20																						
No of women	5	13	22	10	7																						
1	160.	Data on time since transplantation in years for 50 female subjects is given in the following table: calculate a) Frequency b) coefficient of variation	5																								
		<table border="1"> <tr> <td>year (X)</td> <td>4-6</td> <td>6-8</td> <td>8-10</td> <td>10-12</td> <td>12-14</td> <td>14-16</td> </tr> <tr> <td>No of female (f)</td> <td>3</td> <td>6</td> <td>16</td> <td>14</td> <td>7</td> <td>4</td> </tr> </table>	year (X)	4-6	6-8	8-10	10-12	12-14	14-16	No of female (f)	3	6	16	14	7	4											
year (X)	4-6	6-8	8-10	10-12	12-14	14-16																					
No of female (f)	3	6	16	14	7	4																					
5	161.	In order to compare the effectiveness of two sunburn lotions, a random sample of seven subjects is selected. Lotion A is applied to the left side of their faces an lotion B to the right side. After the subjects have sat in the sun watching a three – hour tennis match, the degree of sunburn is measured on a scale. Apply wilcoxon signed rank test; determine whether the data support the claim that the two lotions are equally effective.	5																								
		<table border="1"> <tr> <td>subject</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> </tr> <tr> <td>lotion A</td> <td>48</td> <td>62</td> <td>42</td> <td>69</td> <td>74</td> <td>35</td> <td>84</td> </tr> <tr> <td>lotion B</td> <td>46</td> <td>49</td> <td>48</td> <td>63</td> <td>43</td> <td>32</td> <td>53</td> </tr> </table>	subject	1	2	3	4	5	6	7	lotion A	48	62	42	69	74	35	84	lotion B	46	49	48	63	43	32	53	
subject	1	2	3	4	5	6	7																				
lotion A	48	62	42	69	74	35	84																				
lotion B	46	49	48	63	43	32	53																				

Question Paper Pattern- Model Question Paper

St. Philomena's College (Autonomous), Mysore

M.Sc IV Semester C3 Component-Final Examination April-2019

Subject: BIOCHEMISTRY

Title: Biostatistics

Time: 3 Hours

Max Marks: 70

PART-A

Answer the following:

10x2=20

- | | | |
|-----------|----------|--|
| 1. | a | |
| | b | |
| | c | |
| | d | |
| | e | |
| | f | |
| | g | |
| | h | |
| | i | |
| | j | |
| | k | |
| | l | |

PART-B

Answer any FIVE questions:

5x10=50

- | | | |
|-----------|----------|--|
| 2. | a | |
| | b | |
| 3. | a | |
| | b | |
| 4. | a | |
| | b | |
| 5. | a | |
| | b | |
| 6. | a | |
| | b | |
| 7. | a | |
| | b | |
| 8. | a | |
| | b | |
