

**University Institute of Engineering & Technology**

*(Recognised Under Section 2(f) and 12B of UGC)*

**Kurukshetra University, Kurukshetra**

**TIME – 3 Hrs 15 Min**

**THEORY EXAMINATION – FEB 2021**

**B. TECH – BIOTECH**

**SEMESTER – III**

**M.M. - 56**

**PAPER– BTE-207**

**SUBJECT– Principles of Biostatistics**

**INSTRUCTIONS TO BE FOLLOWED**

- Allotted time for examination is 3 hours 15 minutes that includes time for downloading the question paper, writing answers, scanning of answer sheets and E-mailing the PDF files to the designated Email ID.
- For all B Tech. Biotechnology Students, the Email ID is:- [btechbiotechuiet@kuk.ac.in](mailto:btechbiotechuiet@kuk.ac.in)
- The candidates will be required to attempt 75% of the question paper (maximum) by choosing to their any best questions accumulating 56 marks.
- The PDF files should be saved as Roll No. and Subject Code. Proper attention should be given while sending the email and in the subject line, the Roll Number and Subject Code should be mentioned.
- Maximum Page Limit should be 20 (Twenty) for attempting the question paper on A4 sheets which could be downloaded and printed from the sample sheets given in the Kurukshetra University Examination guidelines.
- Over-attemptation should be avoided.
- Handwriting should be neat and clean and diagrams should be clear and contrasted.
- The candidate should not write their Mobile No. otherwise Unfair Means Case will be made.
- While attempting the paper, the candidate will use blue/black pen only.
- Before attempting the paper, the candidate will ensure that he/she has downloaded the correct question paper. No complaint for attempting wrong question paper by the candidate will be entertained.
- Candidate must ensure that he/she has put his/her signature on each page of the answer sheet used by him/her. Answer sheet without the signature of the candidate will not be evaluated.

**PART-A**

**Q. No. – 1 Answer the following questions.**

**15x1=15**

(i)	What do you mean by statistics?
(ii)	What is the difference between math and statistics?
(iii)	Write the formula of standard deviation.
(iv)	Find out the mean of following data: 3, 5, 8, 7, 6,4,7.
(v)	Write the relation between Mean, Median and mode.
(vi)	What is significant number?
(vii)	What is relative error?
(viii)	Write the formula of chi square test.
(ix)	What is T test?
(x)	What is regression?
(xi)	What do you mean by correlation?
(xii)	What is coefficient of corelation?
(xiii)	What any two properties of binomial distribution?
(xiv)	What any two properties of normal distribution.
(xv)	What is poison distribution?

**PART-B**

<b>2</b>	The mean of 100 items is 80. By mistake one item is misread as 92 instead of 29. Find the Correct mean.	<b>5</b>
<b>3</b>	A coin is tossed 6 times. What is the probability to obtain four and more HEADS?	<b>5</b>
<b>4</b>	Calculate the regression equation of following data: X: 6 2 10 4 8 Y; 9 11 5 8 7	<b>5</b>
<b>5</b>	Explain different types of error in biostatistics with example.	<b>5</b>

**PART-C**

<b>6</b>	Calculate the Mean Median and Mode of the following data: 15,20,30,22,25,18,40,50,55& 65	<b>10</b>
<b>7</b>	Calculate the standard deviation of the following data: 240,260,290,245,255,288,272,263,277,251.	<b>10</b>
<b>8</b>	Consider a cross between two heterozygous pea plant. What is the probability that two Out of five will be dwarf.	<b>10</b>
<b>9</b>	In an experiment on pea breeding Mandal obtained the following frequency: Round and Yellow: 315, Wrinkled and Yellow: 101, Round and Green: 108 and Wrinkled and Green: 32. According to his theory the number should be 9:3:3:1. Is there any Evidence to doubt the theory?	<b>10</b>
<b>10</b>	Calculate the F ratio of the following data: A: 66 67 75 76 82 84 88 90 92 B: 64 66 74 78 82 85 87 92 93 95 97.	<b>10</b>

<b>11</b>	What do you mean by correlation and coefficient of correlation? Explain with examples.	<b>10</b>
<b>12</b>	How computer is useful in biostatistics, explain with example.	<b>10</b>
<b>13</b>	Explain rounding off, significant number and error with example.	<b>10</b>