



# ALLAMA IQBAL OPEN UNIVERSITY

Semester Terminal Exam Autumn 2020

Program /level:	BS	Maximum Marks	100
Title /Course Code	Introduction to Statistics (4485)	Pass marks	50

## Instructions for Exams:

1. Attempt All Questions.
2. Write answers in your own words and avoid copying from an internet source or any book.
3. Be precise, avoid unnecessary details, answer to each question must be between 600-800 words.
4. Students are advised to upload their answer sheets/solutions on LMS portal as soon as they complete their answers and not to wait for 8:30 PM.
5. Submissions after due date & time will not be entertained. Attach undertaking with each course code which were allowed to attempt in Urdu.
6. If plagiarism found, Student may be declared fail.

Q. No.	Questions	Marks
Q.No.1	(a) What is a statistical error? In what way does it differ from a mistake? Explain the difference between absolute and relative errors. (b) What are the different steps of data presentation? Explain it in detail. (c) What are the principal criteria for a satisfactory average? State giving reasons the circumstances in which it would be preferable to use(i) the mean, (ii) the median, (iii) the mode, (iv) the geometric mean and (v) harmonic mean	(11+10+12) 33
Q.No.2	(a) What is a statistical error? In what way does it differ from a mistake? Explain the difference between absolute and relative errors. (b) What are the different steps of data presentation? Explain it in detail. (c) What are the principal criteria for a satisfactory average? State giving reasons the circumstances in which it would be preferable to use(i) the mean, (ii) the median, (iii) the mode, (iv) the geometric mean and (v) harmonic mean	(12+12+10) 34
Q.No.3	(a) Distinguish among classical or a priori probability, relative frequency or a posteriori probability, axiomatic probability and subjective or personalistic probability. What is the disadvantage of each? Why do we study probability theory? (b) Describe the general procedure for testing a hypothesis about a population parameter. (c) Differentiate between regression and correlation by giving examples. Also describe the properties of correlation coefficient.	(11+11+11) 33