

International Islamic University Chittagong (IIUC)

Department of Economics & Banking

Mid-Term Examination: Autumn-2022

Program: BSS (Honours)

Course Code: STAT-1201

Time: 1.5 Hours

Course Title: Elementary Statistics

Full Marks: 30

Answer any **THREE** of the following questions. All parts of a question must be answered sequentially. Figures in the right margin indicate full marks.

1. (a) What is statistics? Define Data, Population, Sample, Parameter, and Estimator. 06
- (b) The following table shows the number of bushels (bu) of wheat and corn produced on the PQR farm during the years 2017-2021. Draw a component bar diagram with reference to this table. 04

Year	Number of Bushels of Wheat (to the nearest 5 bu)	Number of Bushels of Corn (to the nearest 5 bu)
2017	200	75
2018	185	90
2019	225	100
2020	250	85
2021	240	80

2. (a) In the following data, the weights of 40 male students of Dept. of Economics & Banking, IIUC are recorded to the nearest pound.
140,164,150,132,144,125,149,157,146,158,140,147,136,148,152,144,168,126,138,176,163,119,
154,165,146,173,142,147,135,153,140,135,161,145,145,142,150,156,145,128.
- i. Construct a frequency distribution table. 06
- ii. Draw a histogram using the frequency distribution table. 02
- iii. Draw a frequency polygon. 02

Following table shows a frequency distribution of grades on a final examination in statistics. Calculate the mean, mode and median of the distribution. 10

Grade	Number of Students
30-39	1
40-49	3
50-59	11
60-69	21
70-79	43
80-89	32
90-100	9

Distinguish among Median, Quartile, Decile and Percentile. Calculate 1st Quartile, 3rd Quartile and 5th Decile from the above data (Question-3) 10