

Gambella University

Faculty of Natural and Computational Sciences

Department of Statistics

Statistics for Management I Group Assignment (30%) for Management Weekend Students

A/Y: 2015/2023, Year: II, Deadlines: During the final exam date

1. Classify each of the following first as qualitative or quantitative and second as nominal (categorical) ordinal, interval, or ratio measure.
 - a) Times for swimmers to complete a 50-meter race
 - b) Months of the year Meskerm, Tikimit...
 - c) Socioeconomic status of a family when classified as low, middle and upper classes.
 - d) Blood type of individuals, A, B, AB and O.
 - e) Regions numbers of Ethiopia (1, 2, 3 etc.)
 - f) The number of students in a college;
 - g) The net wages of a group of workers;
2. Classify the following sentences as belonging to the area of descriptive statistics or inferential statistics.
 - i. As a result of recent cutbacks by oil-producing nations, we can expect the price of gasoline to double in the next year.
 - ii. The average monthly income of all household in city x is 500 dollars based on sample data.
 - iii. Adane concludes that his chance of passing the first year this academic year is at least 80% based on the statistics that 75% of the freshmen passed last year.
3. Suppose data collected for heights (in cms) of 390 cows were tabulated in a frequency distribution and the following results were obtained.
 f_i : 6, 25, 48, 72, 116, 60, 38, 22, 3
 $CM_1 = 112, CM_2 = 117$ where CM_i i^{th} class mark

Determine:

- i. the class interval size (class width)
 - ii. the class limits
 - iii. class boundaries
 - iv. class marks
 - v. the less than cumulative frequency distribution
 - vi. the class intervals having the highest frequency
4. Given the data 5,6,7,4,9,10,12,20,3,8 if each item is multiplied by 5 and 6 is added then, the new mean will be_____
5. Marks of 75 students are summarized in the following frequency distribution:

Marks	No. of students
0-44	7
45-49	10
50-54	22
55-59	f_4
60-64	f_5
65-69	6
70-74	3

If 20% of the students have marks between 55 and 59

- a. Find the missing frequencies f_4 and f_5 .
- b. Find the mean.
- c. Median
- d. Mode