King Saud University

College of Business Administration

Department of Quantitative Analysis

First Mid Exam

(QUA107/ Introduction to Statistics in Business)

Name:	**ID:**
Serial Number:	**Section:**

For each question choose your answer from the given choices (A, B, C, or D), and then put your answers very carefully on the following table.

Question's No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Chosen letter	**A**	**C**	**A**	**A**	**D**	**C**	**A**	**B**	**B**	**A**
Question's No	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Chosen letter	**D**	**B**	**C**	**A**	**C**	**C**	**A**	**B**	**D**	**D**

Question (1) : On a national survey, respondents are asked to list their background as African-American, Hispanic, Asian-American, Caucasian, or Other. **What level of measurement is being used?**

A. Nominal	B. Ordinal
C. Interval	D. Ratio

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Use the following data to answer questions 2 to 4:

The Data:

4, 4, 5, 6, 7, 8, 8, 9 , 10 , 15 , 6 , 12 , 3 , 13

Question (2) : What is the **60^{th} percentile ?**

A. 4.75	B. 10.50
C. 8	D. 7.5

Question (3) : The data are to be organized into a frequency distribution table, the appropriate **number of classes and the width of each class** respectively is (approximately)

A. (4,3)	B. (3.3)
C. (3,5)	D. (12,15)

Question (4) : Frequency distribution table that represents the data is

A.

Class	F
3 - 6	4
6 - 9	5
9 - 12	2
12 - 15	3

B.

Class	F
3 - 6	4
7 - 10	5
11 - 14	2
15 - 18	3

C.

Class	F
3 - 6	3
6 - 9	6
9 - 12	2
12 - 15	4

D.

Class	F
3 - 7	4
7 - 11	5
11 - 15	2
15 - 19	3

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Question (5) : What statistics are needed to **draw a box plot**?

A.	Minimum, maximum, mean, first and third quartiles
B.	Median, mean and standard deviation
C.	A median and an interquartile range
D.	None of the above

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Question (6) : Number of observations falling within a particular class interval is called _____ of that class

A. Interval	B. Midpoint
C. Frequency	D. Limit

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Question (7) : The following is the table of a relative frequency of a data contains n=25:

x	f/n
-1	0.15
0	b
1	0.2
2	0.1

Find the **value b.**

A. 0.55	B. 0
C. 0.3	D. 0.20

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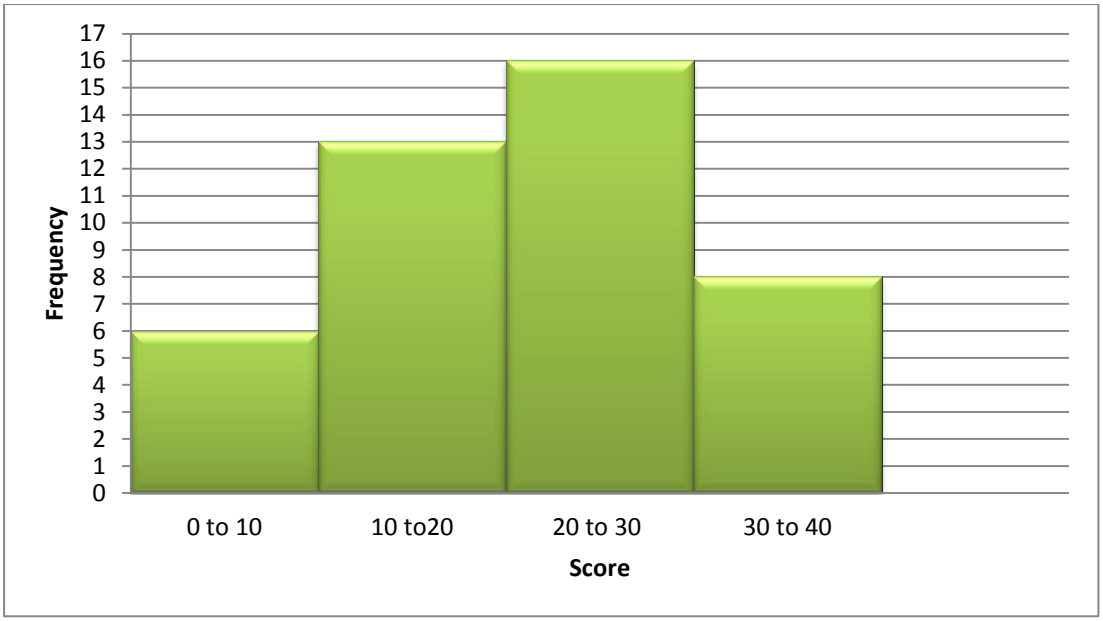
Use the following data to answer questions 8 to 11:

The following histogram shows the scores on the first statistics exam.



Question (8) : How many students took the exam?

A. 16	B. 43
C. 6	D. 29

Question (9) : What is the class **interval?**

A. 5	B. 10	C. 40	D. 35

Question (10) : What is the class **midpoint** for the first class?

A. 5	B. 10	C. 0	D. 6

Question (11) : How many students earned a score of **less than 30?**

A. 8	B. 13	C. 16	D. 35

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Question (12) : Find **the weighted mean price** of three models of automobiles sold. The number and price of each model sold are shown in this list.

Model	Number	Price $
A	8	10,000
B	10	12,000
C	12	8,000

A. 12000	B. 9866,67	C. 1000	D. 10000

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Question (13) : Which of the following is not a measure of **central tendency?**

A. Mean	B. Median
C. Range	D. Mode

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Use the following data to answer questions 14 & 15:

The local bus company went through a period when its buses always left the city-Centre late. The data is shown in the table below:

Minutes late	Frequency				
0 – 10	5				
10 – 20	6				
20 – 30	15				
30 – 40	12				
40 – 50	3				
Total					

Question (14) : The **mean** equal:

A. 25.49	B. 209	C. 20	D. 30

Question (15) : The sample **standard deviation** equal:

A. 25.49	B. 124.76	C. 11.17	D. 15.76

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Question (16) : Quartiles, median, percentiles and deciles are **measures of central tendency classified** as

A. paired average
B. deviation averages
C. positioned averages
D. central averages

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Question (17) : According to percentiles, **median** to be measured must lie in

A. 50^{th}	B. 80^{th}	C. 40^{th}	D. 100^{th}

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Question (18) : What is the **(range & Mode)** for the following stem and leaf plot?

Stem	Leaf
1	2 4 5 6 7
2	3 6 6 6
3	2 5 4
4	
5	1 6 9

A. (40, 12)	B. (47,26)	C. ((2,9)	D. (6,5)

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Question 19: A teacher asked 10 of her students how many books they had read in the last 12 months. Their answers were as follows: 12, 23, 19, 6, 10, 7, 15, 25, 21, 12 . **Distribution** of data is :

A. Negatively skewed	B. Bimodal
C. Normally distributed	D. Positively skewed

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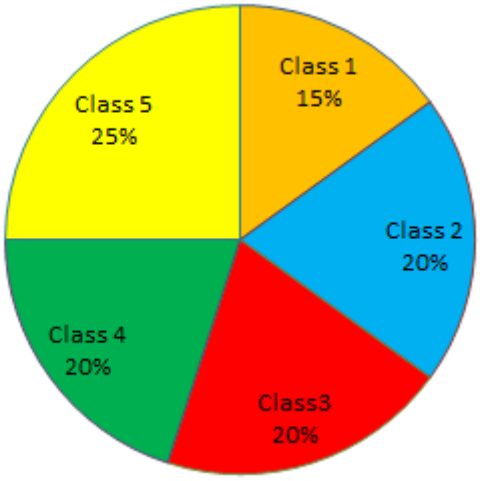
Question 20: The data below shows the number of students present in different classes on a particular day:

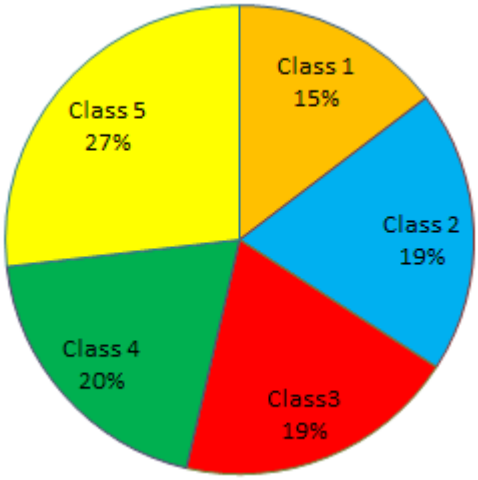
Classes	Class (1)	Class (2)	Class (3)	Class (4)	Class (5)
Number of students present	35	40	30	40	50

The Pie diagram that represents the above frequency distribution is that one given in:

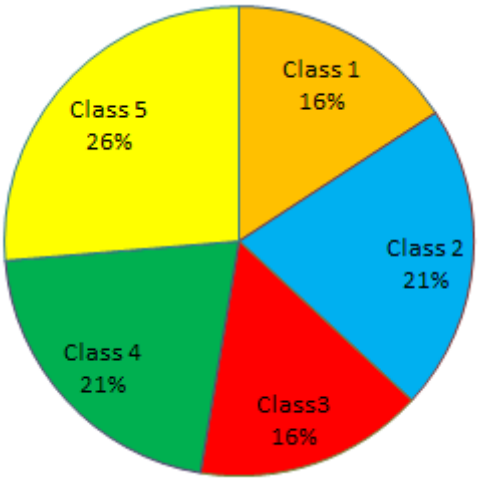
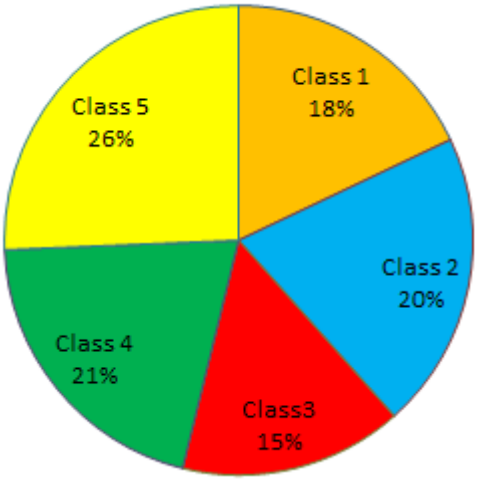
(A)



(B)



(C)



(D)