

**PART I: Answer the following questions:**

1. An instructor is evaluating the performance of students on a test. He records the number of points that each student missed and created a frequency distribution. This is provided below:

Points missed	Number of students
0-under 10	2
10-under 20	4
20-under 30	10
30-under 40	8
40-under 50	6

- What is the mean number of points missed? What is the variance for this population?
2. Given  $P(A) = 0.40$ ,  $P(B) = 0.50$ ,  $P(A \cap B) = 0.15$
- Compute  $P(A \cup B)$ ,  $P(A|B)$ ,  $P(B|A)$ .
  - Are A and B independent? Are A and B mutually exclusive?
3. A market research team compiled the following discrete probability distribution. In this distribution,  $x$  represents the number of automobiles owned by a family.

$x$	$P(x)$
0	0.10
1	0.10
2	0.50
3	0.30

- Compute the mean (average) value of  $x$  and its standard deviation?

**PART II: Write T if the statement is true and F if the statement is false (Give justification) :**

1. In a histogram, the tallest bar represents the class with the highest cumulative frequency.
2. One advantage of a stem and leaf plot over a frequency distribution is that the values of the original data are retained.
3. Statistical measures used to yield information about the center or the middle parts of a group of numbers are called the measures of central tendency.
4. The average of the squared deviations about the arithmetic mean is called the variance.
5. If the mean of a distribution is greater than the median, then the distribution is positively skewed.
6. The method of assigning probabilities to uncertain outcomes based on laws and rules is called the classical method.
7. An event that cannot be broken down into other events is called a certainty outcome.
8. Given two events, A and B, if the probability of either A or B occurring is 0.8, then the probability of neither A nor B occurring is -0.8.
9. Given two events, A and B, if the probability of A is 0.6, the probability of B is 0.4, and the joint probability of A and B is 0.24, then the two events are independent.
10. To compute the variance of a discrete distribution, it is not necessary to know the mean of the distribution.



**PART III: Circle the correct answer:**

1. The cumulative frequency for a class is 27. The cumulative frequency for the next (non-empty) class will be \_\_\_\_\_.

- A. less than 27
- B. equal to 27
- C. 27 minus the next class frequency
- D. 27 plus the next class frequency

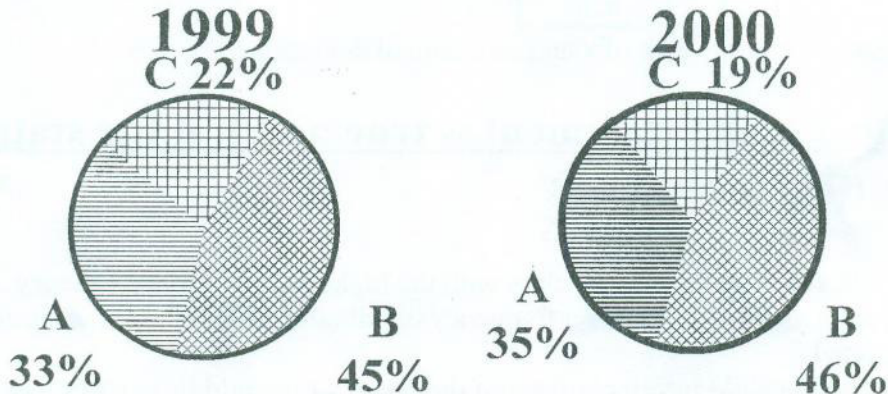
2. The following class intervals for a frequency distribution were developed to provide information regarding the starting salaries for students graduating from a particular school:

Salary (\$1,000s)	Number of Graduates
18-under 21	-
21-under 25	-
24-under 27	-
29-under 30	-

Before data was collected, someone questioned the validity of this arrangement. Which of the following represents a problem with this set of intervals?

- A. There are too many intervals.
- B. The class widths are too small.
- C. The first and the second interval overlap.
- D. Some numbers between 18,000 and 30,000 would not fall into any of these intervals.

3. The 1999 and 2000 market share data of the three competitors (A, B, and C) in an oligopolistic industry are presented in the following pie charts. Total sales for this industry were \$1.5 billion in 1999 and \$1.8 billion in 2000. Company C's sales in 2000 were \_\_\_\_\_.



- A. \$342 million
- B. \$630 million
- C. \$675 million
- D. \$828 million

4. A commuter travels many miles to work each morning. She has timed this trip 5 times during the last month. The time (in minutes) required to make this trip was 34, 39, 41, 35, and 41.

- i. The mean time (in minutes) required for this trip was \_\_\_\_\_.
- ii. What is the variance for this sample data?

- A. 35
- B. 41
- C. 37.5
- D. 38
- A. 8.8
- B. 11
- C. -2
- D. 3

5. In a set of 15 aluminum castings, two castings are defective (D), and the remaining thirteen are good (G). A quality control inspector randomly selects three of the fifteen castings without replacement, and classifies each as defective (D) or good (G). The sample space for this experiment contains \_\_\_\_\_ elementary events.

- A. 3,375
- B. 2,730
- C. 455
- D. 15

*[Handwritten signature]*

6. The table below provides summary information about students in a class. The sex of each individual and the major is given.

	Male	Female	Total
Accounting	12	18	30
Finance	10	8	18
Other	26	26	52
Total	48	52	100

- i. If a student is randomly selected from this group, what is the probability that the student is male?  
A. 0.12      B. 0.48      C. 0.50      D. 0.52
- ii. If a student is randomly selected from this group, what is the probability that the student is a female who majors in accounting?  
A. 0.18      B. 0.60      C. 0.35      D. 0.40
- iii. A student is randomly selected from this group, and it is found that the student is majoring in finance. What is the probability that the student is a male?  
A. 0.21      B. 0.10      C. 0.56      D. 0.48
7. A student randomly guesses the answers to a five question true/false test. If there is a 50% chance of guessing correctly on each question, what is the probability that the student misses no questions?  
A. 0.000      B. 0.200      C. 0.500      D. 0.031
8. The number of cars arriving at a toll booth in five-minute intervals is Poisson distributed with a mean of 3 cars arriving in five-minute time intervals. The probability of 3 cars arriving over a five-minute interval is \_\_\_\_\_.  
A. 0.2700      B. 0.0498      C. 0.2240      D. 0.0001
9. Within a range of z scores from -2 to +2, you can expect to find \_\_\_\_\_ per cent of the values in a normal distribution.  
A. 95      B. 99      C. 68      D. 34
10. For an exponential distribution with a lambda ( $\lambda$ ) equal to 4, the standard deviation equal to \_\_\_\_\_.  
A. 4      B. 0.5      C. 0.25      D. 1

FEEL FREE AND RELAX.

*Argha*



Date: 18/1/2015

Time:3hours

**Please be attentive to the number of pages in the exam, as the exam pages may be on both sides of the paper OR on other separate pages.**

**Answer the following questions:**

**First Question :**

**Define the following concepts:**

1. Marketing Mix.
2. Marketing Information System.
3. Exploratory Research.
4. Consumer Market.
5. Personality and Self-Concept.
6. Market Segmentation.
7. Differentiated Marketing.
8. Product Position.
9. Market Targeting.
10. Channels of Distribution.

**Second Question**

**Comment on the following statements:**

1. Differences are apparent between the selling and the marketing concepts.
2. The research design must specify the primary data to collect, and how they will be collected.
3. It is essential for buyers to follow certain stages in order to take an effective decision.
4. Marketers rely on major variables for segmenting business markets.
5. There are many ways to segment a market, but not all segmentations are effective.
6. Producers use intermediaries because they create greater efficiency in making goods available to target markets.

**Best Wishes**

The University of Kaferelsheikh  
Faculty of Commerce  
1<sup>st</sup> Semester Exam(2014-2015)

Course: Money and Banking  
Grade: 2  
85 Marks

Date: 06/01/15  
Time: 3 hours



Answer the following questions. The allocation of marks among sub-questions is indicated in the margins of each question.

**1<sup>st</sup> Question: Fill in the gaps with the appropriate terms.**

1. ....is a promise by a bank to lend the cardholder money with which to make purchases. (1)
2. .... is an asset that is generally accepted as payment for goods and services or repayment of debt. (1)
3. ....are Places where financial instruments are bought and sold.(1)
4. Liquidity is a measure of the.....with which an asset can be turned into a means of payment (namely.....). (2)
5. ....is an instruction to the bank to transfer funds from your account to that of the person or firm whose name is written in the “Pay to the Order of” line. (1)
6. The main uses of financial instruments are....., &..... (2)
7. ....,&.....are the parts of the Financial System. (2)

8. ....is an alternative to using money and requires a “double coincidence of wants,” meaning that in order for trade to take place both parties must want what the other has. (1)
9. The financial instruments that primarily used to transfer risk are.....and.....contracts. (2)
10. .... works as a check and there is usually a fee for the transaction. (1)
11. ....payments exist because of time properties of financial instruments. (1)
12. ....card is an electronic message to your bank to transfer funds immediately, while..... card, you have to pay it back. (2)
13. ....is the basis of foundation of the financial system. (1)
14. ....accept premiums, pay out based on events. (1)
15. ....monitor financial Institutions and stabilize the economy. (1)
16. ....are important off-balance-sheet activity; they guarantee that a customer will be able to make a promised payment. (1)
17. ....is the relationship between the price and the quantity of bonds people are willing to sell, all other things being equal. (1)
18. ....is any financial arrangement involving the current transfer of resources from a lender to a borrower, with a transfer back at some time in the future. (1)
19. ....is based on the value of 500 firms, the largest firms in the U.S. economy. (1)

20. A.....letter of credit is a form of insurance; the bank promises that it will repay the lender should the borrower default. (1)
21. ....are designed to give us a sense of the extent to which stock prices are going up or down. (1)
22. The asset side of a bank's balance sheet includes .....,.....,&..... (1)
23. ....is a value-weighted index of over 5000 companies traded on the over-the-counter market (OTC) through the National Association of Securities Dealers Automatic Quotations service. (1)
24. ....equals a bank's net profit after taxes divided by total assets. (1)
25. Assume  $i=5\%$ , the price of a Six-Month Treasury Bill is..... (1)

### 2<sup>nd</sup> Question

**a. "To generate fees, banks engage in numerous off-balance-sheet activities": indicate, in detail, these activities. (15)**

**b. How do the following changes affect the demand, supply, (or both), graphically, in the bond market?**

- A decrease in the government's borrowing. (5)
- An improvement in business conditions. (5)
- A decrease in expected inflation. (5)

### 3rd Question

*“Financial markets are the economy’s central nervous system, relying and reacting to information quickly, allocating resources, and determining prices”*: **indicate, in detail, the structure of financial markets.** (25)

*Best Wishes*