

JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA
PGDM / PGDM (M) / PGDM (SM) 2016 – 18 BATCH, TRIMESTER- I
MID – TERM EXAM, AUGUST, 2016
SUBJECT: Quantitative Analysis for Management-I

TIME: 1 hour

Max. Marks: 20

INSTRUCTIONS: All questions are compulsory. Use of any type of calculator is allowed.

1. An investment analyst collects data on stocks and notes whether or not dividends were paid and whether or not the stocks increased in price over a given period. Data are presented in the following table:

	Price Increase	No Price Increase
Dividends paid	34	78
No Dividends paid	85	49

- a) If a stock is selected at random out of the analyst's list of 246 stocks, what is the probability that it increased in price? (1)
- b) If a stock is selected randomly, what is the probability that it both increased in price and paid dividends? (1.5)
- c) What is the probability of price increase given that no dividends are paid? (1.5)
2. Read the case below and answer the following questions:

A survey of 20 business school graduates undertaken by a university placement office asked, among other questions, in which area each person was employed. Below is the descriptive statistics of, No. of week searching job and Salary (in thousand per month). Table 1 shows the descriptive statistics. Answer the following questions

	Search	Salary
Mean	2.85	50.30
Median	2	50.50
Mode	2	53
Variance	3.34	38.95
quartile1	1	45.75
quartile3	3.25	53.5
Female		
Mean	3.6	48.5
Variance	15.15	43.17
Male		
Mean	2.2	52.1
Variance	1.73	31.88

- (a) Suggest Placement office which gender group is more consistent in salaries. Explain (4)
- (b) Is salary data skewed? (2)
- (c) Comment about the symmetry of search data. (2)

3. A restaurant Galaxy International is experiencing discontentment among its regular customers. It has analyzed the situation and found out that there are primarily three factors responsible viz. food quality, services quality and ambience. By conducting an analysis, it assesses the probabilities of discontentment with the three factors as 0.50, 0.30 and 0.20 respectively. By conducting a survey among customers, it also evaluates the probabilities of a customer going away discontented on account of these factors as 0.40, 0.30 and 0.10 respectively. The restaurant manager wants to know if a regular customer is discontented, what are the chances that discontentment among its regular customers is due to ambience? (4)
4. The number of calories in a salad on the lunch menu is normally distributed with mean=200 and standard deviation=5. Find the probability that the salad you select will contain
- a) More than 208 calories (2)
 - b) Between 190 and 200 calories. (2)