



Plot No. 2, Knowledge Park-III, Greater Noida (U.P.)-201306

POST GRADUATE DIPLOMA IN MANAGEMENT (2018-20) MID TERM EXAMINATION (TERM-I)

Subject Name: **Quantitative Techniques in Management**
Sub. Code: **PG04**

Time: **01.30 hour**
Max Marks: **20**

Note:

1. Writing anything except Roll Number on question paper will be deemed as an act of indulging in unfair means and action shall be taken as per rules.
2. All questions are compulsory in Section A, B & C. Section A carries 1 Case Study, 8 marks, Section B carries 3 questions of 2 marks each and Section C carries 2 questions 3 marks each.

SECTION A

8 Marks

Q. 1: Case Study:

An investor has Rs 10,00,000 to invest. He decides to invest in different asset class. The amount of money that he proposes to invest and the corresponding return is given below:

| Asset Class | Amount to be invested (Rs) | Expected rate of return (%) |
|-----------------------------|----------------------------|-----------------------------|
| Equity Shares | 2,50,000 | 15 |
| Debt Mutual Fund | 1,50,000 | 10 |
| Fixed Deposit in ICICI Bank | 4,00,000 | 7 |
| Gold | 2,00,000 | 12 |

- a) What is Weighted Average Return (weighted arithmetic mean) that investor should expect by investing all his money?
- b) Find out the Arithmetic Mean of the expected return?
- c) Why is arithmetic mean different from weighted mean from the above data? Explain.

SECTION B

6 Marks

Q. 2: a) Soft drinks are sold in three sizes at fast food restaurants- small, medium and large. Explain why the size of the soft drink is an example of categorical variable?

b) Suppose that you measure the weight of students in a class. Explain why weight in kg is a continuous data?

Q.3: The net profit of Raunaq Auto Ltd for the last five years are given as under

| Year | Net Profit (Rs) |
|------|-----------------|
| 2013 | 120 |
| 2014 | 200 |
| 2015 | 245 |
| 2016 | 180 |
| 2017 | 150 |

Find out the Compound Annual Growth Rate (CAGR) of the growth rate in net profit over the last five years.

Q.4: Below data represent the overall miles per gallon (MPG) of 2016 SUV priced under \$ 30000.

| | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|
| 23 | 20 | 21 | 22 | 18 | 18 | 17 | 17 | 19 | 19 | 19 |
| 17 | 21 | 18 | 18 | 18 | 17 | 17 | 16 | 20 | 16 | 22 |

Compute the mean median and mode

SECTION C

6 Marks

Q.5: a) Why contingency table is created? Explain it with suitable examples.

b) Why is it said that the main features of the Pareto chart are its ability to separate the “vital few” from the “trivial many”? Discuss.

Q.6: How descriptive statistics is different from inferential statistics? Explain with suitable examples