

**COMMONWEALTH EXECUTIVE MBA / MPA
PROGRAMME**

Term-End Examination

June, 2010

C-7 : QUANTITATIVE TECHNIQUES

Time : 3 hours

Maximum Marks : 100

(Weightage 70%)

-
- Note :** (i) *There are two sections.*
(ii) *Section A has six questions, each carrying 15 marks. Attempt any four questions from section A.*
(iii) *Section B is compulsory and carries 40 marks. Attempt both questions.*
(iv) *Statistical tables may be supplied on request.*
-

SECTION - A

1. Describe the main features of the quantitative approach to management. What factors in modern society contribute to the increasing importance of quantitative approach to management ?
2. Following is the frequency distribution of weights of the 100 male students at XYZ university. Find the arithmetic mean of the weight of the given students.

| | | | | | |
|--------------------|-------|-------|-------|-------|-------|
| Weight kg | 60-62 | 63-65 | 66-68 | 69-71 | 72-74 |
| No. of students | 5 | 18 | 42 | 27 | 8 |

3. A salesman is known to sell a product in 3 out of 5 attempts. While another salesman in 2 out of 5 attempts. Find the probability that.
 - (a) no sale will be affected
 - (b) either of them will succeed in selling the product.

4. What is the major difference between probability and non-probability sampling ? List different types of probability and non-probability sampling methods.

5. The average weekly food expenditure of families in a certain area has a normal distribution with mean = Rs. 125 and standard deviation = Rs. 25. What is the probability that a family selected at random will have an average weekly expenditure on food in excess of Rs. 175/- ?

6. Write short notes on *any three* of the following :
 - (a) Mode
 - (b) Skewness
 - (c) Criteria of optimism
 - (d) Student and distribution
 - (e) Seasonal variation in Time Series.

SECTION - B

7. What is meant by correlation ? What are the limits of the value of correlation coefficient (r) ? What do the positive, negative and zero values of r indicate ?

 8. A random sample of 100 recorded deaths in a city in India during the past year showed an average life span of 71.8 years with a standard deviation of 8.9 years. Does the average life span today is greater than 70 years. Use 0.05 level of significance.
-