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Roll No. ----------------------

**MBA-1362**

**MBA (I Semester) Examination December 2018**

**BUSINESS ADMINISTRATION (BACK PAPER)**

**Quantitative Methods**

*Time Allowed: Three Hours] [Maximum Marks: 70*

**Note:** Answer **all** questions.

**Q. 1.**  Attempt any six of the following questions. **5\*6=30**

1. What is range? What are the limitations of range?
2. Calculate the mean from the following data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Marks** | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 |
| **No. of Students** | 5 | 10 | 25 | 30 | 20 | 10 |

1. What is regression analysis? What are its advantages?
2. What is index number? Briefly explain.
3. What are dependent and independent events?
4. One card is drawn from a standard card pack of 52. What is the probability that it is either King or Queen?
5. What is the procedure of Hypothesis testing? Explain.
6. What are the types of Errors in Hypothesis testing?

**Q. 2.** What is Measure of central tendency? Write the types of measures of central tendency?**10**

**OR**

Calculate the Median from the following data:

|  |  |
| --- | --- |
| **Class** | **Frequency** |
| 0-10 | 8 |
| 10-20 | 15 |
| 20-30 | 22 |
| 30-40 | 20 |
| 40-50 | 10 |
| 50-60 | 5 |

**Q. 3.** What is a time series? Write about the utility of time series, its components and models of relationship between the components of time series. **10**

**OR**

Two Judges have given rank to 10 different singers. The rank given by two Judges are as follows:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Singers | A  | B | C | D | E | F | G | H | I | J |
|  Judge 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Judge 2 | 3 | 1 | 4 | 2 | 6 | 9 | 8 | 10 | 5 | 7 |

Calculate Spearman’s Rank Correlation coefficient?

**Q. 4.** Explain about the concept of probability? The uses of probability in business decision-making? **10**

**OR**

A question in Mathematics is given to five students A, B, C, D, and E. Their chances of solving the question by five students are 1/2, 1/3, 1/4, 1/5, and 1/6 respectively. What is the probability that the problem will be solved?

**Q. 5.** What is Hypothesis testing and what are its procedures? What is one tailed and two tailed test of Hypothesis? **10**

**OR**

A random sample size of 16 has a mean of 53. The standard deviation of the sample is 3. Can this sample be regarded as taken from the population having mean of 56 at 5% level of significance? Given that the table value is 2.13 at degree of freedom of 15.