0202

B.B.A. IInd SEMESTER EXAMINATION, 2019
Paper – II
Business Statistics Part - 2

Time: Three Hours

Maximum Marks: 80

PART – A (खण्ड – अ)   [Marks: 20]

Answer all questions (**50** words each).

All questions carry equal marks.

सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न का उत्तर **50** शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – B (खण्ड – ब)   [Marks: 40]

Answer **five** questions (**250** words each),

selecting one from each unit. All questions carry equal marks.

प्रत्येक इकाई से **एक–एक** प्रश्न चुनते हुए, कुल पाँच प्रश्न कीजिए।

प्रत्येक प्रश्न का उत्तर **250** शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – C (खण्ड – स)   [Marks: 20]

Answer any **two** questions (**300** words each).

All questions carry equal marks.

कोई **दो प्रश्न** कीजिए। प्रत्येक प्रश्न का उत्तर **300** शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – A

Q.1 Answer all question -

(a) What is the use of interpolation?

(b) What is the concept of Binomial Expansion?

(c) Why free hand curve method does not present perfect trend of time series?

(d) What do you mean by "Trend" in time series?

(e) What are mutually exclusive events? Give one example.

(f) Where Bayes Theorem can be used? Give one example.

(g) What is the formula of Poisson Frequency distribution?

(h) Write importance of theoretical frequency distribution.

(i) What do you mean by "SQC"?

(j) Write two limitations of SQC.

PART – B

UNIT –I

Q.2 Explain association of attributes and explain its various types.

OR

Q.3 Explain the difference between Extrapolation and Interpolation with suitable examples.

UNIT –II

Q.4 The following data represent total revenues (in lakhs ₹.) by a car rental agency over the 11 year period 2001 to 2011.

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Revenue	4.0	5.0	7.0	6.0	8.0	9.0	5.0	2.0	3.5	5.5	6.5

Set a 3 year moving average trend by given data.

OR

Q.5   Explain the conversion of trend equation.

UNIT –III

Q.6   Mrs. Gill wants to give her nephew two sweets from a jar she keeps on her kitchen table.

There are 11 sweets in this jar. 7 of the sweets are red and 4 of the sweets are orange.

Calculate the probability that Mrs. Gill will take a sweet of each colour if she takes two

sweets randomly from the jar.

OR

Q.7   What is "addition theorem" in probability? Explain it with suitable example.

UNIT –IV

Q.8   Five coins are tossed 3200 times. Find the expected frequency of distribution of head

and tails by Binomial Theorem and tabulates the result.

OR

Q.9   What is Poisson Distribution? Explain with the example and state the conditions under

which this distribution can be used?

UNIT –V

Q.10 Explain advantages and limitations of Statistical Quality Control.

OR

Q.11 What is variation, describe all type variation in quality control?

PART – C

Q.12 Explain Newton's advancing and divided difference with examples.

Q.13 Fit a least square trend by given data -

Year	1	2	3	4	5	6
Value	200	350	400	250	450	600

Q.14 The letters of the word SUMMER are printed on 6 cards (each character on different card).

(a) A card is chosen at random. Write down the probability that it has letter R printed on it.

(b) Find the probability that the card chosen at random does not have the letter M printed on it.

Q.15 If 3% of the balls manufactured by a company are defective, what is the probability that in a sample of 200 balls, 5 will be defective? (Given $e^{-5} = 0.00248$)

Q.16 Meaning of acceptance sampling? What is sampling plan? Why sequential sampling is necessary?