E 3107 (Pages : 3) Reg. No.....

Name.....

B.Com. DEGREE (C.B.C.S.S.) EXAMINATION, APRIL 2012

Second Semester

Core Course IV—QUANTITATIVE TECHNIQUES FOR BUSINESS RESEARCH

(Common for Model I, Model II and U.G.C. Sponsored B.Com. Degree Programmes)

Time : Three Hours Maximum Weight : 25

Answers may be written **either** *in English* **or** *in Malayalam.*

Section A

Answer **all** *questions.*
Each bunch of four questions carries a weight of 1.

I. Choose the correct answer from the choices given below :

1 Parametric test include :

(a) Sign test. (b) Fisher-Trwin test.
(c) Matched pair test. (d) F-test.

2 Non probability sampling method consists of :

(a) Lottery method.
(b) Fisher and Yalis table.
(c) Kendall and Bahington smith table.
(d) Snow ball sampling techniques.

3 Minimum frequency required for Chi-square test is :

(a) More than 15. (b) Less than 15.
(c) 50. (d) Less than 50.

4 "The study of cause and effective relationship between variables". State the types of research :

(a) Pure research. (b) Descriptive research.
(c) Hypothesis testing. (d) Action research.

II. Fill in the blanks :

5 The mutually exclusive events are these that ——— occur together.

6 When there is inverse relationship between the variables, the value of r lies between ——— and ———.

7 The coefficient of determination explains the ——— of Y around the regression line.

8 The report used by the administration and executive are come under ———.

III. State whether the following statements are True *or* False :

9 Chi-square test is a parametric test of hypothesis testing.

10 Standard error is used for testing the reliability of partial coefficient of correlation.

11 Acceptance of null hypothesis false belongs to type one error.

12 The study of getting familiarity with new phenomenon is known as fundamental research.

IV. Match the following :—

13 Pure research	(a) Rejecting null hypothesis when it is true.
14 Exploratory research	(b) The research undertaken for the sake of knowledge without any intention to apply it in practice.
15 Fixed interval method	(c) The study of fact finding investigation with adequate interpretation.
16 The preliminary study	(d) The random selection of sampling unit consists of population elements.
	(e) Of an unfamiliar problem about which researcher has little or no knowledge.
	(f) The method of taking every element in the population after a random start.

(4 × 1 = 4)

Section B

Answer any **five** *of the following.*
Each question carries a weight of 1.

17 Distinguish between types one error and type two errors.

18 What is non parametric test ?

19 Distinguish between Dependant event and independent event.

20 Explain standard error in testing hypothesis.

21 State concurrent deviation method in correlation.

22 Define regression analysis.

23 What is Ex-post research ?

24 What do you mean by degree of freedom ?

(5 × 1 = 5)

Section C

Answer any **four** *of the following.*
Each question carries a weight of 2.

25 A teacher claiming his efficiency asserts that the variance of the time taken by his taughts in answering a question in the examination hall does not exceed 14 minutes. A random sample of his 12 taughts revealed a variance of 16 minutes, do you think evidence support the teachers claim ? Use test for the purpose.

26 What do you mean by testing of hypothesis ? Explain its procedure.

27 Distinguish primary and secondary data.

28 The probability of a football team winning a match at Jaipur is 6/7 and losing the match at Delhi is 3/5 what is the probability of the team winning at least one match.

29 From the following data find the two regression equations :

X	...	6	2	10	4	8
Y	...	9	11	5	8	7

30 Briefly explain probability and non-probability sampling techniques.

(4 × 2 = 8)

Section D

Answer any **two** *of the following.*
Each question carries a weight of 4.
Answer should not exceed **four** *pages.*

31 Compute coefficient of correlation for the following data through Karl Pearson's coefficient of correlation method :

x	:	25	35	45	52	20	33	40	30
y	:	20	15	10	14	23	18	22	30

32 The number of accident during a week in Bhubaneswar were as follows :

Days	:	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Frequency	:	16	24	28	32	18	28	22

Find the calculated value of Chi square under both the methods and test the goodness of fit there by at level 5 % level significance under the hypothesis that the accidence uniformly disributed over the week.

33 What is research ? Explain briefly the various types of research.

(2 × 4 = 8)