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Register Number:

Name of the Candidate:

B.B.A. DEGREE EXAMINATION – 2011

(SECOND YEAR)

(PART – III)

(PAPER – VIII)

260. QUANTITATIVE METHODS
(Common with Double Degree and Lateral Entry)

December)

(Time: 3 Hours

Maximum: 100 Marks

SECTION - A

Answer any TEN of the following.

(10 × 2 = 20)

- 1 What is frequency distribution?
.
- 2 What is Pie-diagram?
.
- 3 Find mode 2,3,4,5,5,6,7,15,5,6,7.
.
- 4 What measure of Control Tendency?
.
- 5 Positive and Negative correlation.
.
- 6 Where do we apply Time Series?
.
- 7 What are the uses of index numbers?
.
- 8 State the additional law of probabilities.
.
- 9 Where do we apply Poisson distribution?
.

1
0 (2 3 4) $\frac{ad - bc}{e} = ?$
.

1 What is an universal set?

1

.

1 What is the use of Venn diagram.

2

.

SECTION - B
Answer any FOUR questions. (4 × 10 = 40)

1 Explain the application of statistics in business.

3

.

1 Explain the various components of time series with suitable examples.

4

.

1 Calculate the quartile deviation and coefficient of quartile deviation from the following data:

5

Age in years	20	30	40	50	60	70	80
Number of Members	7	71	142	163	145	64	4

1 In a large consignment of electric bulbs, 10% are defective. A random sample of 30 taken for inspection. Find the probability that

.

(i) All are good bulbs. (ii) At most there are three defective bulbs. (iii) Exactly there are three defective bulbs.

1 Two Appraisers rank the ten competitors as follows:

7

Appraiser – A:	1	6	5	10	3	2	4	9	7	8
Appraiser – B:	6	4	9	8	1	2	3	10	5	7

Use the rank correlation coefficient and find out what degree of agreement is there between the referees.

1 Calculate Index from the following data:

8

Commodity	2002		2003	
	Price	Qty.	Price	Qty.
A	10	6	15	5
B	12	10	15	10
C	18	5	27	3
D	8	5	12	4
E	15	8	22	12

SECTION - C

Answer any TWO questions. (2 × 20 = 40)

1 Calculate the mean, median and mode for the following data:

9

Profit (Rs. Lakhs)	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60
Number of Shops	12	18	27	20	17	6

2 Explain the different types of sampling techniques with examples.

0

2 A committee consists of people is to be appointed. There are 3 officers in production department, 4 officers in the purchase department, 2 officer from finance department and 1 advertisement department. Find the probability of forming the committee in the following manner:

- (i) There must be one from each category.
- (ii) The advertisement person must be in the committee.
- (iii) It should have atleast one from the purchase department.

2 Solve the following system of linear equation by matrix inverse method:

2

$$2x + y + 3z = 18$$

$$x + 2y + 3z = 14$$

$$3x + 4y + z = 16$$

jkpHhf;fk;

gFjp - m

VnjDk; gj;J tpdhf;fSf;F RUf;fkhf tpilasp . (10 × 2 = 20)

1 miybaz; guty; vd;gJ vd;d?

2 ig-tiuglk; vd;why; vd;d?

3 Kfl;lisfis fz;Lgpo 2/3/4/5/5/6/7/15/5/6/7.

.

4 ika epiy nghf;F vd;why; vd;d?

.

5 neh; kw;Wk; vjph; bjhlh;g[nghf;F bfGtpd; ntWghL vd;d?

.

6 fhyk;rh; bjhlh;thpir v';F gad;gLj;jyhk;?

.

7 FwpaPl;L vz;fspd; gad;fs; ahit?

.

8 epfH;jftpd; Tl;ly; njhw;wj;ij vGJf.

.

9 gha;rd; gutiy v';F gad;gLj;jyhk;?

.

1
0 (2 3 4) $\frac{2 \times 3 \times 4}{2 \times 3 \times 4} = ?$

1 bghJf;nfhit (Unviersal Set) vd;gJ vd;d?

1

1 btd; glj;jpd; gad;fs; ahit?

2

gFjp - M
VnjDk; ehd;F tpdhf;fSf;F tpilasp . (4 × 10 = 40)

1 g[s;spapay; tzpfj;jpw;F vt;thW gad;gLfpwJ vd;gij tpsf;Ff.

3

1 fhYk;rhH; bjhlh;thpirapd; gy;ntW ,d';fis tpsf;Ff.

4

1 fPH;f;fhQk; g[s;sptpgu';fspd; fhY;ktpyf;fk; kw;Wk;/ fhY;k tpyf;f bfGitf; fz;fpLf.

5

taJ (tU';fspy;)	20	30	40	50	60	70	80
cWg;gpdh; vz;zpf;if	7	71	142	163	145	64	4

1 xU bghpa kpd;tps;Fj; bjhFjpapy; 10 rjtpfj FiwghLs;sit mj;bjhFjpapy; ,Ue;J guty; Kiwapy; 30

6 kpd;tps;Ffs; vLf;fg;gl;L nrhjpf;fg;gLfpd;wd. Mjpy; fPH;fz;ltw;wpd; epfH;jftpidf; fz;Lgpo:

- (1) midj;J ey;y kpd;tps;Ffs;.
- (2) mjpfgl;rk; _d;W FiwghLs;s tps;Ffs;.
- (3) rhpahf _d;W FiwghLs;s tps;Ffs;.

1 xU gjtp cah;t[nghl;oapy; ,uz;L kjpg;gPl;lhsh;fs; 10 nghl;oahsh;fSf;Fk; thpir Kiwapy; fPnH
7 bfhLf;fg;gl;Ls;sd:

kjpg;gPl;lhsh; 1	-	1	6	5	10	3	2	4	9	7	8
kjpg;gPl;lhsh; 2	-	6	4	9	8	1	2	3	10	5	7

thpir xl;Lwt[f; bfGk Kiwiag; gad;gLj;jp ,uz;L eLth;fSf;Fk; cs;s xg;g[jy; Kiwg;ghl;ilf; fzf;fpL.

1 FwpaPl;blz;izf; fPH;f;fz;l g[s;sp tptu';fSf;Ff; fzf;fpLf.

8

bghUs;	2002		2003	
	tpiy	mst[tpiy	mst[
m	10	6	15	5
M	12	10	15	10
,	18	5	27	3
<	8	5	12	4
c	15	8	22	12

gFjp - ,
VnjDk; ,uz;L tpdhf;fSf;F tpilasp . (2 × 20 = 40)

1 fPH;f;fz;l g[s;sp tpgu';fSf;F Tl;Lr; ruhrhp/ ,ilepiyast[kw;Wk; Kfl;lsitf; fzf;fpLf.

9

,yhgk; (%. ,yl;r';fs;)	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60
filfspd; vz;zpf;if	12	18	27	20	17	6

2 TbwLj;jypd; gy;ntW tiffis tpsf;Ff.

0

.

2 4 ngh; bfhz;l xU FGit epakdk; bra;a ntz;Lk;. Cw;gj;jpj;Jiwapy; 3 ngh;/ bfhs;Kjy; Jiwapy; 4
1 ngh;/ epj;j;Jiwapy; 2 ngh; kw;Wk; tpsk;guj; Jiwapy; xUth; cs;sdh;. mt;thwhd NHypy;
. fPH;fz;lthW FG mikg;gjw;fhd epfH;jftpidf; fz;Lgpof;ft[k;:

(1) xt;bthU JiwapYk; fz;og;ghf xUth;.

(2) tpsk;guj;Jiw egh; FGtpy; fz;og;ghf ,Uf;fntz;Lk;.

(3) bfhs;Kjy; Jiwapy; ,Ue;J Fiwe;jgl;rk; xUth;.

2 fPH;fz;l neh;rkd;ghLfis neh; khwzp (Matrix Inverse) Kiwapy; jPh;f;ft[k;:

2

$$2x + y + 3z = 18$$

$$x + 2y + 3z = 14$$

.

$$3x + 4y + z = 16$$

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