

Note: Question No. **ONE is COMPULSORY.**

**Attend ANY SIX** from the remaining. All questions carry equal marks.

Q-1 Answer the following:

1. 3Vs of Big data are \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
2. What is a full form of OLAP?
3. \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ are 3 main services of cloud computing.
4. Answer true or false – App engine is cloud service of Google.
5. What is data mining?
6. Give any one source from where data mining is possible.
7. Google docs is the example of what type of cloud computing?
8. Give any one major issues in data mining.
9. What types of data can be mined?
10. What is pattern in data mining?

Q-2 What are the data mining functionalities?

Q-3 What is Cloud Computing? List the benefits of Cloud Computing.

Q-4 Why Data Mining?

Q-5 What are the classifications of Cloud Computing?

Q-6 What drives Big Data?

Q-7 What is OLTP?

Q-8 What are the data mining functionalities?

Q-9 Give details of AWS.

Q-10 Disadvantages of Cloud Computing.

**X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X**



PGDBA (Sem.-2) Examination

Paper-6

Business Forecasting & ERP

April 2019

Time : 2-30 Hours]

[Max. Marks : 70

**NOTE: ATTEMPT ANY SEVEN QUESTIONS.**

- Q-1 What are the key functions of python? List any 5 with example
- Q-2 Write a script to find an average of 5 subjects' marks of a student.
- Q-3 What are the different loops in Python? Explain with example.
- Q-4 Explain if.... Else with example
- Q-5 Explain Tuples, List and Ranges with difference.
- Q-6 What is user define Functions in Python with function calls and parameters.
- Q-7 Explain ERP? Why should organizations invest in ERP?
- Q-8 What is the various scope of ERP?
- Q-9 List the advantages and disadvantages of ERP?
- Q-10 Write a Python script - ask user to enter the number and find the number is prime or not (eg. Enter number: 5 - Number is prime)

**X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X**



## PGDBA (Sem.-2) Examination

## Paper-7

## Multivariate Data Analysis &amp; Management

April 2019

Time : 2-30 Hours]

[Max. Marks : 70

Q.1(a) What aspects you should consider while preparing your data for multivariate analysis? (6)

OR

Q.1(a) What is multivariate analysis? Describe its detailed classification. (6)

Q.1(b) Describe in detail objectives and procedure of multidimensional scaling. (6)

OR

Q.1(b) Describe in detail the structured approach to multivariate model building. (6)

Q.2.(a) Discuss why outliers may be classified as beneficial and problematic. (6)

OR

Q.2.(a) Describe decision process of multiple regression. (6)

Q.2.(b) Describe objectives and procedure of factor analysis. (6)

OR

Q.2.(b) Describe decision process of discriminant analysis. (6)

Q.3(a) State the guidelines for multivariate analysis and interpretation. (6)

OR

Q.3. (a) Answer briefly. (6)

(i) Explain briefly canonical correlation.

(ii) What is measurement error

Q.3(b) What is conjoint analysis? Describe purpose and procedure of conjoint analysis. (6)

OR

Q.3(b) How do metric and non metric multidimensional scaling procedures differ? (6)

Q.4 Interpret the following output of conjoint analysis. (12)

ABC soft drink bottling company wants to enter the fruit juice market, as the demand for aerated drinks is showing a stagnant trend because of increasing health consciousness among the consumers. Before the launch of fruit juices, the company wants to undertake a study to determine what combinations of attributes with various levels would be the most desired one. That three attributes considered in the study are FLAVORS, PACKAGING and PRICE each of them having three levels.

The levels of the above mentioned attributes are as follows:

- Flavors- MIXED FRUIT, ORANGE, MANGO
- Packaging- TETRA PACK, PLASTIC BOTTLE, GLASS BOTTLE
- Price- RS. 90, RS. 75, RS. 65.

Flavors	Var 1	Var 2
MIXED FRUIT	1	0
ORANGE	0	1
MANGO	-1	-1

Packaging	Var 3	Var 4
TETRA PACK	1	0
PLASTIC BOTTLE	0	1
GLASS BOTTLE	-1	-1

Price	Var 5	Var 6
RS. 90	1	0
RS. 75	0	1
RS. 65	-1	-1

P.T.O.....

Variables in the regression equation	
Constat	5.778
Var 1	-1
Var 2	1.333
Var 3	-1.667
Var 4	0.0000
Var 5	2.00
Var 6	1.33

OR

Q.4 Interpret the following output of factor analysis and identify factors using rotated factor matrix. (12)

20 two-wheeler users were surveyed about their perception and image attributes of vehicles they owned.

Ten statements were as follows:

1. I use a two-wheeler because it is affordable.
2. It gives me sense of freedom to own a two-wheeler.
3. Low maintenance cost makes a two-wheeler very economical in the long run.
4. A two-wheeler is essentially a man's vehicle.
5. I feel very powerful when I am on my two-wheeler.
6. Some of my friends who don't have their own vehicle are jealous of me.
7. I feel good whenever I see the ad for my two-wheeler on TV, in a magazine or on a hoarding.
8. My vehicle gives me a comfortable ride.
9. I think two-wheelers are safe way to travel.
10. Three people should be legally allowed to travel on a two-wheeler.

#### Descriptive statistics

	Mean	S. D.	N	C.V.
VAR00001	2.35	1.3089	20	55.7
VAR00002	3.25	1.4824	20	45.6
VAR00003	2.25	1.118	20	49.7
VAR00004	3.1	1.8035	20	58.2
VAR00005	2.8	1.5079	20	53.9
VAR00006	3.05	1.6051	20	52.6
VAR00007	2.7	1.4546	20	53.9
VAR00008	3.05	1.905	20	62.5
VAR00009	3.2	1.5079	20	47.1
VAR00010	2.8	1.4726	20	52.6

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.618
Bartlett's Test of Sphericity	Approx. Chi-Square
	164.098
	df
	45
	Sig.
	.000

#### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.883	38.828	38.828	3.883	38.828	38.828	3.841	38.409	38.409
2	2.777	27.770	66.598	2.777	27.770	66.598	2.429	24.294	62.703
3	1.375	13.747	80.346	1.375	13.747	80.346	1.764	17.643	80.346
4	.945	9.449	89.795						
5	.479	4.793	94.588						
6	.292	2.923	97.511						
7	.117	1.166	98.677						
8	.068	.680	99.356						
9	.037	.374	99.730						
10	.027	.270	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix<sup>a</sup>

	Component		
	1	2	3
VAR00001	.126	.313	.780
VAR00002	-.181	-.639	-.107
VAR00003	-.116	.604	.594
VAR00004	.970	-.064	-.006
VAR00005	.964	.131	.063
VAR00006	.945	-.140	.030
VAR00007	.971	.024	.106
VAR00008	-.262	.848	.101
VAR00009	.010	.881	-.044
VAR00010	.063	-.149	.874

Communalities

	Initial	Extraction
VAR00001	1.000	.722
VAR00002	1.000	.452
VAR00003	1.000	.731
VAR00004	1.000	.945
VAR00005	1.000	.950
VAR00006	1.000	.914
VAR00007	1.000	.955
VAR00008	1.000	.799
VAR00009	1.000	.777
VAR00010	1.000	.789

Extraction Method: Principal

Q.5. Interpret the following output of multidimensional scaling.

(12)

A set of eight business and general interest magazines available in the market is taken and multidimensional scaling is used to determine how the Indian consumers perceive them. Find out how many dimensions the consumer seems to be considering and name the dimensions.

The eight brands taken are:

- |                   |             |            |                   |
|-------------------|-------------|------------|-------------------|
| 1. India Today    | 3. Outlook  | 5. Open    | 7. Frontline      |
| 2. Business world | 4. Investor | 6. Society | 8. Business India |

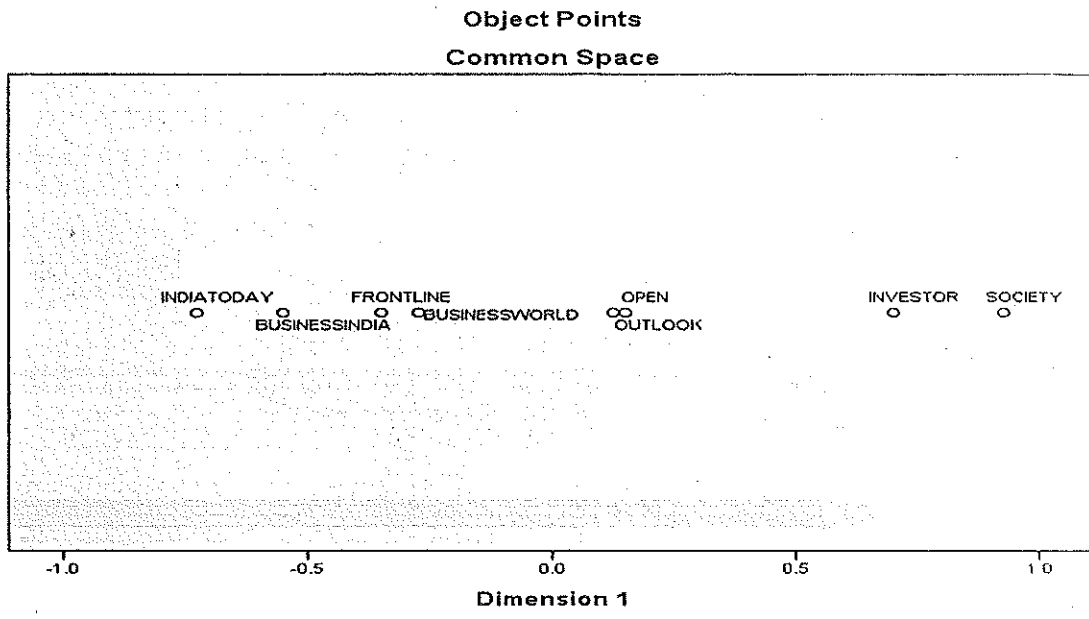
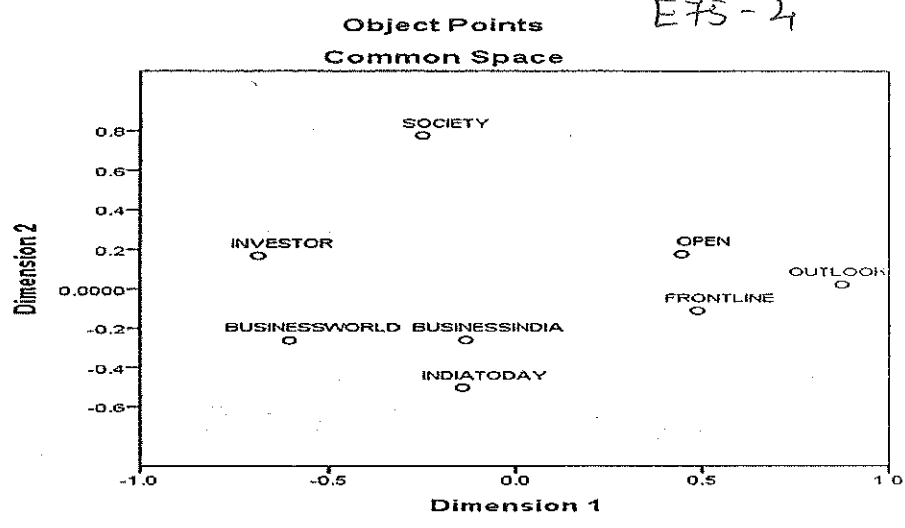
## 3- Dimensional solution

Iteration	S-stress	R-square Values
1	0.09037	0.87015
2	0.20997	0.62649
3	0.42501	0.40979

## 3 - Dimensions coordinates

	Dimension		
	1	2	3
Var1	0.651	1.3540	0.9126
Var 2	-1.441	1.2010	-0.3782
Var 3	-1.3895	0.2482	-0.3073
Var 4	-1.2913	-1.0665	0.5077
Var 5	0.4488	-0.5759	1.1595
Var 6	0.7146	-1.5063	0.4559
Var 7	1.6938	0.4143	-0.4536
Var 8	0.6135	-0.0687	-1.8996

E75-4



OR

Q.5. Interpret the following output of discriminant analysis. (12)

A retail outlet wants to know the consumer behavioral pattern of the purchase of products in two categories – national brands and local brands respectively, which would help it to place orders depending on demand and requirements of the customer. This retail outlet uses data from retail outlet in another location to arrive at a decision about customers visiting their end.

This retail outlet wants to use discriminant analysis to screen the responsiveness of customers towards national brand and local brand categories and find out the following:

1. The percentage of customers that it is able to classify correctly.
2. Statistical significance of the discriminant function.
3. Which variable (annual income and household size) are relatively better in discriminating between consumers for national and local brand.

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.473	12.721	2	.002

Un-standardized Coefficients	
Variable	Root 1
Annual income	-.335427
Household size	.313361
Constant	4.545077
Eigen value	1.113402



	Standardized Coefficients
Variable	Root 1
Annual income	-0.721519
Household size	.490487
Eigen value	1.113402

**Classification results**

Group	Percent. correct	G_1 (Predicted) Annual income	G_2 (Predicted) Household size
National brand (observed)	90.00	9	1
Local brand (observed)	80.00	2	8
Total	85.00	11	9

**Q.6.M.C.Q.**

(12)

1. \_\_\_\_\_ are simple correlations between the variables and the factors.
  - a. Factor scores
  - b. Factor loadings
  - c. Correlation loadings
  - d. Both a & b are correct
2. Discriminant analysis can be used to answer questions such as:
  - a. How much of the variation in sales can be explained by advertising expenditures, prices, and level of distribution?
  - b. In terms of demographic characteristics, how do customers who exhibit store loyalty differ from those who do not?
  - c. What are the distinguishing characteristics of consumers who respond to direct mail solicitations?
  - d. Both b and c are correct.
3. What are the two main windows in SPSS?
  - a. Data view and Variable view
  - b. Data view and output viewer
  - c. Data editor and Output viewer
  - d. Variable view and output viewer
4. \_\_\_\_\_ is the degree to which the observed values are not representative of the "true" values.
  - a. Measurement error
  - b. Variate
  - c. Measurement scale
  - d. Multivariate measurement
5. Which scale include an absolute 0 point
  - a. Nominal
  - b. Ordinal
  - c. Ratio
  - d. Interval
6. \_\_\_\_\_ is a multivariate technique developed specifically to understand how respondents develop preferences for any type of object
  - a. Cluster analysis
  - b. MDS
  - c. Conjoint analysis
  - d. MANCOVA
7. SPSS stands for which of the following?
  - a. Statistical Package for the Social Science
  - b. Statistics Problems Solved Smart
  - c. Simple Package for Science Statistics
  - d. Statistical Program for the Social Sciences
8. The amount of variance explained by a factor is shown by:
  - a. The factor loadings
  - b. Eigen values
  - c. Name of the factor
  - d. The correlation matrix
9. Which technique attempts to determine the relative importance consumers attach to salient attributes and the utilities they attach to the levels of attributes?
  - a. Discriminant analysis
  - b. Conjoint analysis
  - c. MANOVA
  - d. Factor analysis
10. If you have multiple predictor variables and a dichotomous outcome variable then appropriate test include:
  - a. Discriminant analysis
  - b. Conjoint analysis
  - c. Manova
  - d. factor analysis



## P. G. D. B. A. (Sem.-2) Examination

## Paper-8

## Social Network &amp; Network &amp; Business Process Analytics

Time : 2-30 Hours]

April 2019

[Max. Marks : 70

Note: **Q-1 IS COMPULSORY** and **ATTEMPT ANY SIX** from the remaining and carry equal marks.

Q-1 Answer the following: (10)

1. How can people find you online?
2. What is keyword in search?
3. What is a matrix of web performance?
4. What is conversion rate?
5. What is server log?
6. Explain the term cookies.
7. What is traffic in the reference of Web Analysis?
8. What type of site flipkart is?
9. What types of information can be collected using Web Analysis? Give any one
10. Give one example of Web Analysis software.

Q-2 What type of information can be collected using Web Analysis?

**OR**

Q-2 What are the data quality problems with Web Analysis?

Q-3 What are the sources of Traffic for Web Analysis?

**OR**

Q-3 What are the problems with script based tracking?

Q-4 What information Server logs will have?

**OR**

Q-4 Can Web Analysis give you the information you want?

Q-5 What are the potential problems with collecting data?

**OR**

Q-5 What metrics do you think the online ticket booking website could use for their website?

Q-6 Disadvantages of Server logs

Q-7 Vikranta Limited's earnings and dividends have been growing at a rate of 18 percent per annum. This growth rate is expected to continue for 4 years. After that the growth rate will fall to 12 percent for the next 4 years. Thereafter, the growth rate is expected to be 6 percent forever. If the last dividend per share was Rs. 2.00 and the investor's required rate of return on Vikranta's equity is 15 percent, what is the intrinsic value per share?

Q-8

(a) Calculate Yield to Maturity (YTM) of 5 year bond, paying 6 % interest on the face value of Rs. 1000 and currently selling for Rs. 884.40.

(b) Explain meaning and need of revenue management in detail.

Q-9 What do you mean by derivatives? Explain forward and future contracts in detail.

Q-10 Explain Price Skimming, Psychology Pricing and Bundle Pricing in detail with appropriate examples of each strategy.

**X-X-X-X-X-X-X-X-X-X-X-X-X-X-X-X**

