



JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA
PGDM / PGDM (SM)
FIFTH TRIMESTER (Batch 2016-18)
END TERM EXAMINATIONS, JANUARY 2018

Course Name	MARKETING RESEARCH	Course Code	MKT 502
Max. Time	2 hours	Max. Marks	40 MM

INSTRUCTIONS: All Questions are compulsory

1. A large international air carrier has collected data on employees in three different job classifications: 1) customer service personnel, 2) online marketing personnel and 3) PR executives. The director (marketing) wants to know if these three job classifications appeal to different personality types. Each employee is administered a battery of psychological test which include measures of interest in outdoor activity, sociability and conservativeness. The following observations were made after analyzing the data.

**Canonical Discriminant
Function Coefficients**

	Function	
	1	2
Outdoor	.092	.225
Social	-.194	.050
Conservative	.155	-.087
(Constant)	.937	-3.623

Unstandardized coefficients

Functions at Group Centroids

Job	Function	
	1	2
Customer service	-1.219	-0.389
Online marketing	0.107	0.715
PR executives	1.42	-0.506

Unstandardised canonical discriminant functions evaluated at group means

Standardized Canonical Discriminant Function Coefficient

	Function	
	1	2
outdoor	.379	.926
social	-.831	.213
conservative	.517	-.291

Classification results

		Job	Predicted Group memberships			
			Customer service	Online marketing	PR executives	Total
Original	Count	Customer service	70	11	4	85
		Online marketing	16	62	15	93
		PR executives	3	12	51	66
%		Customer service	82.4	12.9	4.7	100
		Online marketing	17.2	66.7	16.1	100
		PR executives	4.5	18.2	77.3	100

- What is the role of standardized canonical discriminant function coefficients?
 - Explain the significance of Group Centroids
 - Comment on "Predicted Group Memberships"
 - Interpret unstandardized canonical discriminant function coefficients (4X4=16 marks)
2. The sales of a company depends linearly on number of salespersons, money spent on advertising, number of retail outlets, product varieties offered, number of competitors and number of customers. On regression analysis, the following observations were made.

Coefficients^a

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Beta	Lower Bound
(Constant)	-.003	31.103		.000	1.000	-71.728	71.721
SALESPERSON	1.026	.927	.211	1.107	.301	-1.111	3.163
ADCOST	.875	1.274	.190	.687	.512	-2.063	3.812
OUTLETS	1.532	.602	.583	2.545	.034	.144	2.920
VARIETIES	-1.490	2.169	-.113	-.687	.511	-6.491	3.511
COMPETITION	.247	2.245	.011	.110	.915	-4.930	5.424
CUSTOMER	.172	.270	.130	.636	.543	-.452	.795

a. Dependent Variable: SALES

RESIDUAL OUTPUT

<i>Observation</i>	<i>Predicted Y</i>	<i>Residuals</i>	<i>Standard Residuals</i>
1.000	74.191	6.809	1.417
2.000	25.080	-2.080	-0.433
3.000	23.458	-5.458	-1.136
4.000	4.177	3.823	0.796
5.000	15.731	0.269	0.056
6.000	-0.680	4.680	0.974
7.000	24.175	4.825	1.004
8.000	25.964	-3.964	-0.825
9.000	25.246	-10.246	-2.133
10.000	3.580	2.420	0.504
11.000	42.145	2.855	0.594
12.000	11.541	-0.541	-0.113
13.000	25.763	-5.763	-1.199
14.000	61.246	-1.246	-0.259
15.000	1.382	3.618	0.753

- a. By giving examples differentiate linear and multiple regression.
- b. By drawing graph, interpret the residual output
- c. Interpret the regression statistics
- d. What does ANOVA table explain?
- e. When and why do we prefer adjusted R square?
- f. What does Standard Error signify?

(2X6=12 marks)

3. Discuss the environmental factors affecting the definition of the research problem: past information and forecasts; resources and constraints; objectives of the decision maker; buyer behavior; legal environment; economic environment; and marketing and technological skills of the firm. (6 marks)

4. The diet drink manufacturer in the study finds that young women are more health conscious and are looking at low calorie options. Thus, any communication or advertisement for the product has to emphasize the health aspect. The purchase probability is also influenced by their education level and the nature of their profession. Other factors such as available brands, celebrity endorsement and dietician recommendation also have an impact on them.

- a) Identify your research problem and hypotheses
- b) Identify and classify the variables under study

(3 marks)

(3 marks)