

Second Arts, Second Semester Examination, 1999 - 2000

Psychology, Paper 4

PS238 Experimental Psychology, Research Methods, and Psychological Statistics IV  
(Unit value 2.0)

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Time allowed: Two hours

Answer three questions . Answer two questions from Section A and one question from Section B.  
(Candidates will be provided with the necessary statistical tables and formulae.)

SECTION A – Statistics

1. Eight participants were asked to rate four differently dressed male models on ‘friendliness’. Ratings were on a nine-point scale from 1 ‘unfriendly’ to 9 ‘very friendly’. The results are presented in the table below:

Subject	‘Gangster’	Business	Tramp	Smart casual
1	2	5	7	8
2	1	5	7	9
3	2	4	6	8
4	3	5	7	8
5	2	4	7	9
6	1	3	8	8
7	2	4	7	7
8	1	3	6	9

(i) Does dress style appear to influence participants’ ratings of personality in this case? (100%)

2. Sixteen participants were randomly assigned to one of three independent conditions (slow, medium and fast presentation rate of 5-letter words) and asked to recall as many as possible. The number of words correctly recalled is recorded below:

Group one ‘slow’	Group 2 ‘medium’	Group 3 ‘fast’
7	6	4
8	7	5
9	5	3
8	5	4
7	6	3
	5	

(i) Is there a significant difference between the means of the three groups? (70%)  
(ii) Carry out a post-hoc analysis to determine specifically where the differences between groups exist. (30%)

3. Five male judges were asked to rate six different music groups in order of preference. The results are reported below:

Music Groups	Judge A	Judge B	Judge C	Judge D	Judge E
Oasis	2	1	2	2	2
U2	1	2	1	1	1
Bewitched	6	6	5	6	6
Westlife	4	4	6	5	5
Blur	3	3	4	3	3
Five	5	5	3	4	4

- (i) Is there a significant amount of agreement between the judges? (90%)
- (ii) Justify your choice of test (10%)
4. Seventeen participants were allocated to one of three different conditions in a study to examine the effects of different media of advertising on ratings of the product on a seven-point scale (7 = very appealing). The results are reported below:

Radio	Magazine	Television
2	5	7
3	4	6
1	5	5
2	6	6
3	5	6
2		7

- (a) Using the Kruskal-Wallis  $H$  Test and post-hoc analyses (where appropriate), determine if one style of advertising is more effective in making products more appealing. (90%)
- (b) What are the assumptions of the test you used? (10%)

## SECTION B – Research methods

- Compare and contrast within-subjects and between subject designs, highlighting the advantages and disadvantages of each.
- Critically evaluate the contribution of Eastern and Western thinkers to the study of Psychology from the period 1120 to 300 B.C.
- Critically evaluate the contributions of Max Wertheimer, Wolfgang Kohler, and Kurt Koffka to modern psychology.