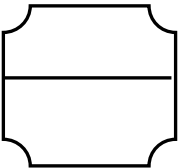


KAU University	Stat 453	Second Semester-1429/1430 H	
Science College	Final exam	Statistics Dep.	
Student name:	ID:		

Question (1):

These data from problem with matched-subject design which rated from 1 to 15

participant	A	B	C	D	E
1	3.9	4.1	4.2	4.1	3.3
2	9.4	9.5	9.4	9.0	8.6
3	9.7	9.3	9.3	9.2	8.4
4	8.3	8.0	7.9	8.6	7.4
5	9.8	8.9	9.0	9.0	8.3
6	9.9	10.0	9.7	9.6	9.1

- 1) Create a data file for the previous data
- 2) Is there a significant difference between the medians of groups?
- 3) If these data indicating significant difference between the medians, make a suitable follow-up test between the medians of the two groups (A and B)?

Question (2):

Some researchers wanted to compare between three new types of medicines for treatment of anemia (فقر الدم), they selected a sample of 180 patients, 60 patients were given medicine (A), 60 patients were given medicine (B), and the last 60 patients were given medicine (C).

After a specific period of treatment, these patients were classified in terms of degree of anemia and the kind of medicine.

1) Create a data file and give the categories these names medicine and anemia degree:

	Degree of anemia				Total
	none	simple	moderate	high	
Medicine A	40	10	6	4	60
Medicine B	36	12	4	8	60
Medicine C	30	16	8	6	60
Total	106	38	18	18	180

2) By using the suitable test, are these data indicating significant differences between the medicines used?

Question (3):

Choose the correct answer:

1- The test which evaluates whether the proportions for a two-category variable are equal to hypothesized values is:

- a) Mann-Whitney *U* test
- b) Binomial test
- c) Kruskal-Wallis test

2- The ----- test is an extension of the Wilcoxon test.

- a) Friedman test
- b) Cochran test
- c) Sign test

Question (4):

Three types of fertilizer (أسمدة) were randomly distributed for a group of farms (مزارع) which contain the same fruit; the test was done to decide if fertilizer effect was equal in the farms.

Ranks		
group	N	Mean Rank
crop	fertilizer 1	6
	fertilizer 2	7
	fertilizer 3	5
	Total	18

Test Statistics ^{a,b}	
	crop
Chi-Square	5.172
df	2
Asymp. Sig.	.075

- 1) The test used is
- 2) The hypothesis are H_0 :
 H_1 :
- 3) The sum of ranks for fertilizer (1) is
- 4) The conclusion for this test is
.....

Question (5):

The following scores are the IQ test for 20 gifted students, is the lower quartile for these scores equal 50?

70	59	62	73	85	55	69	89	65	73
49	53	71	66	64	90	45	55	62	81

Good luck

Mona Al-Zanbagi