

2017

M.Sc.

2nd Semester Examination

CLINICAL NUTRITION & DIETETICS

PAPER—CND-201

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Question No 1 and any three of the following.

1. Answer any ten of the following : 1×10

- (a) Which test will you adopt to find out the trait inheritance according to 'Law of dominance and recessive' in a community?
- (b) Write the formula of mode using mean and median.

(Turn Over)

- (c) When will you apply 'two tail 't' test' instead of 'one tail 't' test'?
- (d) What do you mean by H_0 ?
- (e) Suppose computed 't'-value is 5.80 but critical 't'-value is 3.80 at $P_{(0.05)}$ and $df = 5$, what will be the interpretation from the view point of significance.
- (f) What is the name of statistical test you will follow to find out the association between knowledge level of a community and awareness level to prevent infection?
- (g) What do you mean by ' t_r ' and ' t_c '?
- (h) Write the position of mean, median and mode in normal distribution.
- (i) Which is the parametric test you will follow to know the effect of independent variable on dependent one exclusively by nullifying genetical factors?
- (j) Why χ^2 -test is weaker than correlation?
- (k) What is ROM?
- (l) Write the full form of SPSS.
- (m) Write any one application of statistica.
- (n) What do you mean by programme in computer?
- (o) What is computer virus?

2. (a) Define median.

(b) Compute the median of the following frequency distribution of serum iron ($\mu\text{g}/\text{dl}$) of 80 individuals.

Class Interval	51-53	54-56	57-59	60-62	63-65	66-68	69-71
Frequencies	6	7	13	24	16	10	4

(c) What do you mean by ' f_{xc} '? 2+6+2

3. (a) What do you mean by non-parametric test?

(b) Crossing a 'Black-eyed' male with a 'Blue-eyed' female produces all black-eyed offspring in F_1 generation. On crossing the F_1 adults, the F_2 generation gave following phenotypes :

Black-eyed : 92, and Blue-eyed : 28. Do the data have a goodness of fit with Mendelian 3:1 distribution.

$$\chi^2_{0.05(1)} = 3.84, \chi^2_{0.01(1)} = 6.64, \chi^2_{0.001(1)} = 10.83.$$

(c) How will you calculate lowest f_c if smaller f_r is 540 and smaller f_c is 710 and $n=2000$? 2+6+2

4. (a) The amount of urinary glucose (μg) in 24 hrs urine of 8 individuals under low and high carbohydrate diets are given below. Is there a significant difference in the urinary excretion of glucose due to change in the dietary carbohydrate content?

Individuals:	1	2	3	4	5	6	7	8
Urinary Glucose								
(i) Low Carbohydrate diet (g) :	80	95	75	82	98	87	93	84
(ii) High Carbohydrate diet (g) :	132	145	128	134	148	137	140	136

$$t_{0.05(7)} = 2.365, t_{0.01(7)} = 3.499, t_{0.001(7)} = 5.405.$$

- (b) Write any two assumption of 't'-test.
- (c) What do you mean large sample ? 6+2+2
5. (a) What are input and output devices of a computer ?
Discuss briefly.
- (b) What is ROM ?
- (c) Discuss briefly computer virus and associated software to prevent viral entry. 5+2+3
6. (a) Discuss the use of internet in biological science ?
- (b) What is http ?
- (c) What is the use of dongle ? 6+2+2
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