

**M.Sc. 2nd Semester Examination, 2025**  
**CLINICAL NUTRITION AND DIETETICS**

**PAPER — CND-201**

*Full Marks : 50*

*Time : 2 hours*

**Answer all questions**

*The figures in the right hand margin indicate marks*

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

**GROUP — A**

**Answer any four questions :                    2 × 4**

- 1. In a community survey, diabetes patient group denoted by  $90^\circ$ , CVD patients of 100 in numbers and cancer patient represents  $120^\circ$  angular area in prediagram and 120 in numbers.**

**( Turn Over )**

Calculate the number of diabetic patient and angular area of CVD patient in prediagram.

2. Why cf % ogive is preferred over cf ogive ?
3. In a frequency distribution, the mean is 52.5, median is 53.0 and mode is 54.0. Interpret the nature of the distribution with one cause.
4. When is  $H_0$  rejected in testing of hypothesis by 't'-test ?
5. What are the types of MS Office ?
6. What is the usage of RAM in computer ?

**GROUP – B**

Answer any four questions : 4 x 4

7. Why is ANOVA preferred over 't'-test for testing of hypothesis ? What is two way ANOVA ? 2 + 2

8. ICMR reference value of haemoglobin in adult male is 14.0 g/dl. In a survey, the haemoglobin levels of 10 adults males given below. Find out whether the sample mean is significantly less than reference value  $p < 0.05$  (9) = 1.833.

Hb levels (g/dl) : 10, 12, 11.5, 10.5, 9.5, 14.5, 13.5, 14, 12.5, 11.0

9. Write the conditions where Yate's correction is needed. Why correlation is stronger than Chi-square test ? 2 + 2
10. What are the different types of computer used in research ? Briefly discuss the application of computer in biological sciences.  $1\frac{1}{2} + 2\frac{1}{2}$
11. Write a brief note on SPSS in nutritional data analysis.
12. What is meant by frequency distribution table ? Write its significance in research. 2 + 2

( 4 )

GROUP – C

Answer any two questions :  $8 \times 2$

13. Compute the 'r' values of  $O_2$  consumption and ventilation and determine whether it is significant or not. Interpret your result.

Individuals	1	2	3	4	5	6	7	8
$O_2$ consumption (ml/min)	280	258	320	300	240	330	230	290
Ventilation (lit/min)	5.5	4.8	6.8	6.4	4.8	7.2	4.2	5.6

$$\text{critical } t_{0.05(6)} = 2.447$$

$$t_{0.05(7)} = 2.365 \qquad 6 + 2$$

14. Blood glucose levels (mg/dl) of placebo, 100 $\mu$ g and 150 $\mu$ g antidiabetic drug treatment given below. Is there any significant difference between the groups of 1 & 2 as well as 2 & 3. Determine the strength of association between independent and dependent variables if F-test is significant.

## Blood glucose level (mg/dl)

Group-1 placebo	Group-2 100 $\mu$ g drug	Group-3 150 $\mu$ g drug
125	110	80
120	100	85
132	112	92
140	120	80
138	118	78
145	125	75
150	120	70
135	110	60
132	112	62
138	118	68

$$F_{0.05}(2,27) = 3.35, F_{0.01}(2,27) = 5.49$$

5 + 3

15. The heights( $y$ ) and weights( $x$ ) of 10 students with  $b_{yx} = 1.15$ ,  $\bar{y} = 160$  and  $\bar{x} = 50$ . Determine the  $a_{yx}$ ,  $\hat{y}$  equation and  $\hat{y}$  values when  $x = 52.0$ .

3 + 3 + 2

( 6 )

**16. What is meant by cloud storage ? Write the academic utilities of pubmed, e-mail and Google drive.**

2 + 6

**[ Internal Assessment – 10 Marks ]**

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