

U.G. 5th Semester Examination - 2020**PHYSIOLOGY****[HONOURS]****Discipline Specific Elective (DSE)****Course Code : PHYSIOL-H-DSE-T-1**

Full Marks : 40

Time : $2\frac{1}{2}$ Hours*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**1. Answer any **five** from the following questions:

2×5=10

- State the use of frequency polygon.
- Give example of two nonparametric statistical tests.
- What is cumulative frequency?
- What do you mean by level of significance?
- What is random sampling?
- Differentiate between simple and multiple bar diagram.
- State the difference between continuous and discontinuous variables.
- Define importance of standard error of mean in statistics.

*[Turn Over]***GROUP - B**2. Answer any **two** from the following questions:

5×2=10

- Explain degrees of freedom in statistics. Mention its significance in computing statistics. 2+3=5
- Draw a pie diagram for the following frequency distribution of blood groups in a sample of 350 school students: 5

Blood groups:	A	B	AB	O
Frequencies:	75	88	110	77
- What is mode? Describe the procedure of computing mode from a frequency distribution with equal size of class interval. 1+4=5
- Describe Null Hypothesis in testing the significance of difference between means of two samples. 5

GROUP-C3. Answer any **two** from the following questions:

10×2=20

- What is standard deviation? Describe the procedure of calculating standard deviation of

an ungrouped sample. When is "Chi-square test" used for analysis of biological data?

$$2+5+3=10$$

- b) Explain the importance of statistics in designing a biological experiment. 10
- c) What do you mean by probability? Describe the utility of student's 't'-test. 3+7=10
- d) Calculate the mean, standard deviation and standard error from the following frequency distribution heights (cm) of workers:

$$2+6+2=10$$

Class intervals:	156-160	161-165	166-170	171-175	176-180
Frequencies:	4	14	25	11	6
