

U.G. 5th Semester Examination - 2021

PHYSIOLOGY

[HONOURS]

Discipline Specific Elective (DSE)

Course Code : PHYSIOL-H-DSE-T-1

Full Marks : 40

Time : 2½ 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

- What is histogram?
- What is meant by nonparametric statistical tests? Give one example.
- What is nominal variable?
- What do you mean by degree of freedom?
- What is meant by random sampling?
- What is normal distribution?
- State the difference between continuous and discontinuous variables.
- Define variance.

[Turn Over]

GROUP-B

2. Answer any **two** from the following questions:

5×2=10

- State the difference between Alternative hypothesis and Null hypothesis. 5
- Draw a histogram for the following frequency distribution of body heights (cm) in a sample of school students. 5

Class intervals:	151-160	161-165	188-170	171-175	176-180
Frequencies :	5	25	20	10	4

- Define median. Discuss about the properties of median. 5
- Explain the difference between population and sample with suitable examples. 5

GROUP-C

3. Answer any **two** from the following questions:

10×2=20

- What do you mean by probability? Describe the importance of student's 't' - test. 3+7=10
- What is the difference between standard error and standard error of mean? Explain standard deviation and the method of calculating SD. When is "Chi-square test" used for analysis of biological data? 3+4+3=10

c) Explain the importance of statistics in designing a biological experiment. 10

d) Calculate the mean, standard deviation and standard error from the following frequency distribution of iron concentration ($\mu\text{g/dL}$) of 80 workers. $2+6+2=10$

Class intervals:	100-109	110-119	120-129	130-139
Frequencies :	6	11	10	17

Class intervals:	140-149	150-159	160-169
Frequencies :	16	13	7
