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RNLKWC/B.Sc./CBCS/VIS/H/DSE3T/22

2022

**PHYSIOLOGY**

**[HONOURS]**

**(B.Sc. Sixth Semester End Examination-2022)**

**PAPER-DSE3T**

*Full Marks: 40*

*Time: 02 Hrs*

*The figures in the right hand margin indicate marks*

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

*Illustrate the answers wherever necessary*

1. **Answer any FIVE questions of the following:      5x2= 10**
  - a) Define probiotics. 2
  - b) What is the difference between capsule and slime layer? 2
  - c) What is plasmid. Mention its function. 1+1
  - d) What is hypersensitivity reaction? What type of hypersensitivity is allergy? 1-1
  - e) What do you mean by prophage? 2
  - f) Differentiate between toxins & toxoids? 2
  - g) What is prion? Mention one human disease caused by prion. 2
  - h) Why agar is used in microbiology? 2
  
2. **Answer any FOUR questions of the following:      4x5 = 20**
  - a) What is the difference between Gram(+ve) and Gram (-ve) bacteria? Illustrates with their chemical composition. 3+2

(2)

- b) Write down the process of conjugation in bacteria. 5  
c) Write short note on:- a) Pasteurization b) Immunization

$2\frac{1}{2} \times 2$

- d) Differentiate between humoral and cell mediated immunity 5  
e) Classify different types of bacteria according to their morphological arrangement with structure. 5  
f) Draw the structure of a typical bacteriophage. Describe it in brief. 3+2

**3. Answer any ONE questions of the following: 1x10 = 10**

- a) Discuss the role of different factors on bacterial growth. Draw and describe the growth curve. What is generation time?

4+2+3+1

- b) What is a vaccine? Classify different types of vaccine with examples. 2+8

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