

**2020**

**BIOCHEMISTRY — HONOURS — PRACTICAL**

**Paper : DSE-A-1P**

**(Nutritional Biochemistry)**

**Full Marks : 30**

*The figures in the margin indicate full marks.*

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

1. Write down the determination of the concentration of Vit-C from the following format : 3+(1½×4)
    - (a) Principle
    - (b) Protocol
    - (c) Calculation
    - (d) Results
    - (e) Precaution.
  
  2. Write down the determination of the total phenolic content from black-Tea in the following format : 2+(1×4)
    - (a) Principle
    - (b) Protocol
    - (c) Calculation
    - (d) Results
    - (e) Precaution.
  
  3. Online tutorial document. 5
  
  4. Viva-voce. 10
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**Please Turn Over**

**2020**

**BIOCHEMISTRY — HONOURS — PRACTICAL**

**Paper : DSE-A-2P**

**(Molecular Basis of Infectious Diseases)**

**Full Marks : 30**

*The figures in the margin indicate full marks.*

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

1. (a) Write down the principle of counting of colony forming unit (CFU).  
(b) Schematically describe the process of serial dilution  
(assume the stock to  $10^{-5}$  fold diluted) till  $\rightarrow 10^{-10}$   
(c) Suppose you are supplied with an overnight E.coli culture. After serial dilution 100  $\mu$ L of the culture from  $10^{-5}$  dil. is plated on an agar plate. Next day, you observe 100 colonies on the plate. Calculate the number of bacteria per mL originally supplied E.coli culture. 4+2+4
  2. (a) Write down the principle of PCR.  
(b) What are the criteria of an ideal primer? 3+2
  3. Viva voce. 10
  4. Online tutorial document. 5
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