

Total Pages – 3

B.A. RNLK-/DSE-2T/21

2021

Physiology (H)

[Fifth Semester]

Paper - DSE-2T

Full Marks : 40

Time : 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.*

*Illustrate the answers wherever necessary.*

1. Answer any Five (5) of the following :-  $5 \times 2 = 10$

- a) Define Beer-Lambert's law.
- b) What is PCR?
- c) Mention the importance of Chromatography.
- d) What is Larmor equation?
- e) Mention the clinical importance of fMRI.

*(Turn Over)*

( 2 )

- f) What is CT number?
- g) State the application of RIA.
- h) Mention forensic importance of southern blotting technique.

**2. Answer any four (04) of the following :          4×5=20**

- a) State the difference between TEM & SEM.
- b) What is centrifugation? Discuss the biological importance of density gradient centrifugation.    2+3
- c) Write notes on – (i) Paper Chromotography  
(ii) Western blotting          2½×2
- f) Briefly describe the importance of autoradiography. Mention the principle of phase contrast microscopy.          2+3
- e) What is ELISA? Mention the name of major biological importance of ELISA.          1+2+2
- f) Discuss schematically the working principle of gel-filtration Chromatography.          5

( 3 )

**3. Answer any one (01) of the following : 1×10**

- a) What is PCR? Briefly describe the process of PCR.  
Mention the importance of RT-PCR. 2+6+2
- b) What is affinity chromatography? Discuss the process  
and importance of PET scanning. 2+6+2