

U.G. 4th Semester Examination - 2022

PHYSIOLOGY

[HONOURS]

Skill Enhancement Course (SEC)

Course Code : PHYSIOL-H-SEC-T-2

(Histopathological Techniques)

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.

1. Answer any **five** questions: $2 \times 5 = 10$
- a) What is embedding?
 - b) Name the different types of microtome.
 - c) Write the composition of Leishman stain.
 - d) What is the difference between a stain and a dye?
 - e) What is the purpose of fixation while preparing permanent tissue sections?
 - f) State the difference between histology and histopathology.
 - g) What is the purpose of dehydration step in tissue preparation for permanent sections?

[Turn Over]

2. Answer any **two** questions: $5 \times 2 = 10$
- a) State the principle of PAS Staining. What is the importance of PAS Staining? $2 + 3 = 5$
 - b) Write the difference between progressive and regressive method of tissue staining using eosin and hematoxylin. 5
 - c) What is the purpose of using adhesive while preparing permanent tissue sections? Name two commonly used adhesives used for preparing permanent tissue sections. $3 + 2 = 5$
 - d) Give the advantages and disadvantages of using formol as fixative. 5
3. Answer any **two** questions: $10 \times 2 = 20$
- a) Write the process of staining of a fixed tissue section using hematoxylin-eosin. 10
 - b) Briefly discuss the method used for measurement of the diameter of a megakaryocyte. 10
 - c) What is the purpose of clearing in tissue preparation? Name two clearing agents. State the advantages and disadvantages of using Cedar wood oil as a clearing agent. $3 + 2 + 5 = 10$
 - d) Briefly discuss the staining procedure of reticulocytes. 10