

**M.Sc. 1st Semester Examination, 2024**

**ZOOLOGY**

*( Histochemistry )*

PAPER — ZOOL-103

*Full Marks : 25*

*Time : 1 hour*

**Answer all questions**

*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 *two* of the following questions : 2 × 2
- (a) Perfusion fixation is not always recommended for histological tissue processing  
— Why ?

*( Turn Over )*

( 2 )

- (b) Cite one example each of (i) A quinoid dye  
(ii) A dye of plant origin, (iii) A dye of animal origin and (iv) A vital dye.
- (c) How fluorescent labelling molecules react with protein ?
- (d) Elaborate the uses of Colloidal Gold in Immunohistochemistry.

GROUP – B

2. Answer the following questions (any two) :  $4 \times 2$
- (a) Glutaraldehyde is a better fixative than formaldehyde—Discuss.
- (b) Toluidine Blue is a “Metachromatic dye”—Why ? Write a note on : Auxochrome.  $2 + 2$
- (c) What do you mean by double staining of tissues ? Give an account of any common laboratory method of double staining.  $1 + 3$

( 3 )

- (d) Write the notes on : 2 + 2
- (i) Secondary Lequifaction
  - (ii) Total Anatomical structure-fixation.

**GROUP – C**

3. Answer the following question (any one) : 8 × 1
- (a) What is mordant ? “Haematoxylin can be functionally classified on the basis of the nature of the mordant” –Justify your answer. 2 + 6
  - (b) Answer the following : 2 × 4
    - (i) Useful properties of Avidin and Biotin
    - (ii) Immunostaining procedure
    - (iii) Fixation artifact
    - (iv) Use of sodium-β glycerophosphate.

**[ Internal Assessment – 5 Marks ]**

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