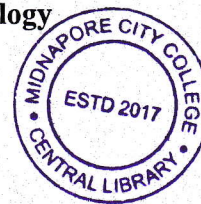


# The West Bengal University of Health Sciences 2nd BMLT November-December, 2022 Examination

Subject : Histopathology & Cytotechnology



Full Marks: 100

Time: 3 hrs.

Attempt all questions

20 x 1

1. Tick the correct answer :

- a) Exudative CSF is found in which type of meningitis?
  - i) Pyogenic.                      ii) Viral.                      iii) Fungul.                      iv) Sub-arachnoid haemorrhage.
- b) For preparation of cell block using thrombin which pathway of coagulation is involved?
  - i) Intrinsic.                      ii) Extrinsic.                      iii) Common.                      iv) None of them.
- c) Semen analysis is done as a part of investigations for :
  - i) Infertility.                      ii) Post vasectomy operation.                      iii) Different legal cases.                      iv) All of them.
- d) In cytocentrifuge the smear is prepared :
  - i) From deposit.                      ii) Directly on slide.
  - iii) After washing the deposit.                      iv) None is coreect.
- e) Frozen section is done for :
  - i) Quick diagnosis.                      ii) Demonstration of fat.
  - iii) Demonstration of enzymes.                      iv) All of them.
- f) Which one of the following is not a fixative?
  - i) Dry heat.                      ii) Formalin.                      iii) Formic acid.                      iv) Alcohol.
- g) With formation fixative, minimum time (in hour) required for a tissue, 6 m.m. thick, to get fixed is :
  - i) Four.                      ii) Nine.                      iii) Sixteen.                      iv) Twenty five.
- h) Harris hematoxylin is a :
  - i) Progressive stain.                      ii) Regressive stain.                      iii) Both of them.                      iv) None of them.
- i) All are advantages of Frozen Section biopsy except :
  - i) Results are available within about 15-20 minuets.                      ii) Used with Cryosection.
  - iii) Extent of tissue to be removed may be decided on it.                      iv) Can never be used in planned operation.
- j) Temperature of water in floatation bath is kept at :
  - i) 10<sup>0</sup>c below the melting point of paraffin.                      ii) 5<sup>0</sup>c above the melting point of paraffin.
  - iii) 60-65<sup>0</sup>c.                      iv) None of them.
- k) Mounting of histological tissue section is done with :
  - i) Mayer's albumin.                      ii) Xylene.                      iii) Resin.                      iv) None of them.
- l) Schiff's reagent is also known as :
  - i) Acid fuchsin.                      ii) Basic fuchsin.                      iii) Leuco fuchsin.                      iv) Carbol fuchsin.
- m) Total number of stains in tri-chrome stain is :
  - i) Two.                      ii) Three.                      iii) Four.                      iv) Six.
- n) Cytology means study of :
  - i) Blood.                      ii) Cell.                      iii) Tissue.                      iv) All of them.
- o) Histopathological report indicate which of the following about prognosis of a disease :
  - i) Whether the tumour has metastasized.                      ii) TNM classification.
  - iii) Tumour grade.                      iv) Predisposing factors for the development of tumour.
- p) With Pap stain, colour of cytoplasm of keratinized cell is :
  - i) Bright red.                      ii) Safron.                      iii) Pink.                      iv) Black.

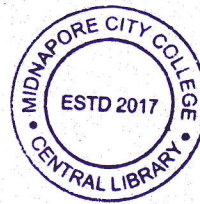
P. T. O.

- q) Best preservative for fluid sample for cytology is :  
 i) 50% Ethanol.    ii) 95% Ethanol.    iii) 50% Methanol.    iv) Any one of them.
- r) Number of stains used in Pap stain is :  
 i) Two.    ii) Three.    iii) Four.    iv) Five.
- s) For taking cervical smear, the spatula or brush must be rotated through :  
 i)  $90^\circ$ .    ii)  $180^\circ$ .    iii)  $360^\circ$ .    iv)  $280^\circ$ .
- t) In liquid based cytology, the liquid used has a base of :  
 i) Glycerol.    ii) Methanol.    iii) Formalin.    iv) Ethanol.

2. Answer the questions briefly :

5 x 2

- a) Characteristics of an ideal fixative.  
 b) Mordant.  
 c) Uses of frozen section.  
 d) Scraping cytology.  
 e) Advantages of cytospin.



3. Write short notes on **any six** of the following :

6 x 5

- a) Mounting of histological tissue section.  
 b) Acid decalcifying agent.  
 c) Reagents and principle of van-Gieson's stain.  
 d) Indirect immune-fluorescence test.  
 e) CSF in pyogenic and tuberculous meningitis.  
 f) Sperm motility.  
 g) Uses and procedure of Liquid based cytology.  
 h) Preparation of a set, advantages and disadvantages of F.N. A.C.

4. Answer **any one** of the following :

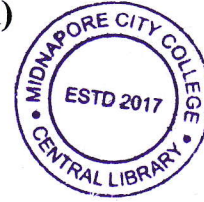
- a) Write down the principle of PAS stain. What are the structures those take up the PAS stain? 6+4
- b) i) You have received a large volume of preserved peritoneal fluid for cytological examination. How will you proceed to prepare a smear? 5
- ii) For a cytology smear, choice of fixative depends on the stain to be used – discuss. 5

5. Answer **any two** of the following :

- a) What is the utility of establishing a pathology museum? Discuss about different Kaiserling fluids in detail. What are the informations and articles those are kept along with the specimen? 3+8+4
- b) What do you mean by tri-chrome technique of staining? Give examples of tri-chrome stain. Discuss about the principle, procedure and result of any one technique. Why iron-hematoxylin is used in this technique? 2+2+8+3
- c) Define cell block. What are the advantages of cell block study? How a cell block is prepared? 2+3+10

**The West Bengal University of Health Sciences**  
**2<sup>nd</sup> BMLT Examination, 2022**  
**Subject: PATHOLOGY (HISTOPATHOLOGY & CYTOPATHOLOGY)**  
**Paper: 201 (Practical)**

**Max. Marks:100**



**Time: 4 hrs**

**Attempt all questions**

1. Perform the following experiments:
  - a) Deparaffinized the slide and do the HE staining, mount it and identify the section. (Experiment: 20; Write the protocol: 7; identify the section: 3). **30**
  - b) Preparation of smear from fluid sample. Perform the PAP or Geimsa stain. Observe and declare the morphology. (Experiment: 10; Write the protocol:7, identify the cells:3). **20**
2. Write a note on sperm motility test. **10**
3. Practical note book & Slide box **5+5**
4. Viva-voce **30**

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