



## BRAINWARE UNIVERSITY

**Term End Examination 2022**  
**Programme – B.Sc.(MLT)-2019/B.Sc.(MLT)-2020**  
**Course Name – Cytopathology**  
**Course Code - BMLT502**  
**( Semester V )**

**Full Marks : 60**

**Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Choose the colour Candida albicans stain in PAP stain
- |                     |                 |
|---------------------|-----------------|
| a) Bluish-green     | b) Grey green   |
| c) Red to pale pink | d) Reddish-pink |
- (ii) In Shorr's staining method, non-cornified cells stain
- |               |               |
|---------------|---------------|
| a) Red        | b) Green-blue |
| c) Orange-red | d) Blue-black |
- (iii) For fluid cytology, fluid has to be collected in
- |          |                   |
|----------|-------------------|
| a) EDTA  | b) Sodium Citrate |
| c) Plain | d) None           |
- (iv) The gauge of needle required for the fine needle aspiration is
- |            |            |
|------------|------------|
| a) 14/24 G | b) 21/24 G |
| c) 21/27 G | d) 11/17 G |
- (v) FNAC aspirate is done by
- |                  |                 |
|------------------|-----------------|
| a) Pathologist   | b) Cardiologist |
| c) Dermatologist | d) Gynecologist |
- (vi) What is polychromatic stain ?
- |                            |                        |
|----------------------------|------------------------|
| a) Stain with multiple dye | b) Stain with 2 dyes   |
| c) Stain with 3 dyes       | d) Stain for chromatin |
- (vii) In Haematoxylin & Eosin Stain, Haematoxylin
- |   |   |
|---|---|
| a) Stains the nucleus Blue  | b) It is an acidic counterstain that stains the cytoplasm of mature keratinized cells |
| c) It stains the cytoplasm of mature squamous cells, nucleoli, Red blood cells, and cilia pink. | d) none of these  |
- (viii) Purpose of Papanicolaou Stain
- |                                    |                                 |
|------------------------------------|---------------------------------|
| a) Detect Glycogen storage disease | b) Screening of Cervical Cancer |
| c) Detects Glial fibre             | d) All of these                 |
- (ix) Which components are better seen in MGG staining?

- a) Cytoplasmic components  
 c) Nuclei Components  
 (x) \_\_\_\_\_ Stain needs Alcohol fixation  
 a) MGG Stain  
 c) Papanicolaou Stain  
 (xi) Smear should be prepared and fixed immediately for cytology because:  
 a) Exfoliated cells degenerate rapidly  
 c) The nuclei of the cells get extruded from the cell  
 (xii) Direct smear is made from which specimen for cytological investigation?  
 a) Cervical specimen  
 c) Breast Secretion  
 (xiii) Which substance accumulate in the cytoplasm of liver cells & appear as fine granules  
 a) Lipid  
 c) Glycogen  
 (xiv) Write the basic principle of Papanicolaou staining.  
 a) Acid dye which stains basic components of cells Basic dye which stains acid components of cells  
 c) Acidophilic cells stain red and basophilic cells stain blue-green.  
 (xv) Choose the cells in which Barr body is observed  
 a) Superficial  
 c) Intermediate
- b) Bacterial components  
 d) All cellular components  
 b) Leishman Stain  
 d) All of these  
 b) Exfoliated cells may be blown away  
 d) Cytoplasm develops granularity  
 b) Spinal Fluid  
 d) All of the above  
 b) Secretory granules  
 d) None  
 b) Acid dye which stains acid components of cells Basic dye which stains basic components of cells  
 d) None of these  
 b) Basal  
 d) Parabasal

**Group-B**

(Short Answer Type Questions)

3 x 5=15

2. What is Decalcification? Describe the Electrolyte method. (3)  
 3. Write short note on Schaudinn's fluid (3)  
 4. What are the causes of peritoneal and pleural effusions? (3)  
 5. Which equipments are required for FNAC? (3)  
 6. Write a note on Alcian Blue stain. Mention its uses. (3)

**OR**

What are the causes of peritoneal and pleural effusions? (3)

**Group-C**

(Long Answer Type Questions)

5 x 6=30

7. List some of the identifying characteristics of malignant cells (5)  
 8. Write down briefly on MSG Stain. (5)  
 9. List some of the identifying characteristics of malignant cells. (5)  
 10. Describe the preparation of cytosmear. (5)  
 11. Write short notes on Carnoy's fluid. (5)  
 12. List some of the identifying characteristics of malignant cells. (5)

**OR**

Write short notes on MSG Stain and discuss it's uses (5)

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