

[LH 0415]

OCTOBER 2015

Sub. Code: 1264

M.Sc. (MEDICAL LABORATORY TECHNOLOGY) DEGREE EXAMINATION

(From 2013-2014 Batch onwards)

SECOND YEAR

PAPER IV – TECHNIQUES IN HISTOPATHOLOGY AND CYTOLOGY

Q.P. Code : 281264

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 20 = 40)

1. Write in detail about Romanowsky stains, mention the various types. Write about Leishman's staining technique.
2. What is the principle of immuno histochemistry? Enumerate the various stains. Write in detail about any one technique.

II. Write Notes on:

(10 x 6 = 60)

1. PAS stain and its application.
2. Stains used in cytology. Write in detail about PAP stains.
3. Principle of immuno fluorescence microscopy.
4. Enumerate the stains used for Amyloid.
5. Mention the fixtures used for museum specimens.
6. What is argentaffin and angyrophil stains.
7. What are reagents used in decalcification.
8. Enumerate the stains used to identify fungi.
9. Mention the stains used for haemosiderin, melanin and calcium.
10. Describe the principle and write in detail on stains for Reticulin.

[LJ 1016]

OCTOBER 2016

Sub. Code: 1264

**M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS
SECOND YEAR
PAPER IV – TECHNIQUES IN HISTOPATHOLOGY AND CYTOLOGY**

Q.P. Code: 281264

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Explain the common characters of Romanosky's stain. Mention the names of various Romanosky's stains available and explain in detail the procedure and staining characteristics of blood cells in any one technique.
2. Explain the optical aberrations that can occur in microscopic lenses and how they are corrected.

II. Write notes on:

(10 x 6 = 60)

1. What is histochemistry?
2. What is the principle of fluorescent microscopy? Mention any one application.
3. Explain liquid based cytology.
4. Write in detail the procedure of PAS stain and mention its use.
5. Name any two stains for microorganisms and explain the procedure of any one.
6. Mention the mucin stains and describe the procedure of any one.
7. What is Autoradiography?
8. Trichrome stains and their uses.
9. Fixation in histopathology and museum technique.
10. Stains used for demonstration of hemosiderin and melanin.

[LL 1017]

OCTOBER 2017

Sub. Code: 1264

**M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS
SECOND YEAR
PAPER IV – TECHNIQUES IN HISTOPATHOLOGY AND CYTOLOGY**

Q.P. Code: 281264

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Write a detail note on immuno-fluorescence and its protocol.
2. Write a detail note on museum techniques.

II. Write notes on:

(10 x 6 = 60)

1. Mention the stains used for hemosiderin, calcium and melanin.
2. Write a note on auto-radiography.
3. Write a note on decalcification and its protocol.
4. Write a note on Romannowsky stains.
5. Write a note on general microscopy.
6. Write a note on stain for elastic fibres.
7. Stain for microorganisms. Explain any one.
8. Write a note on amyloid stain.
9. Write a short note on antigen retrieval.
10. Write a note on Hematoxylin and eosin stain.

[LN 1018]

OCTOBER 2018

Sub. Code: 1264

**M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS
SECOND YEAR
PAPER IV – TECHNIQUES IN HISTOPATHOLOGY AND CYTOLOGY**

Q.P. Code: 281264

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss the principle, preparation, stages, staining technique of Haematoxylin and Eosin Stain.
2. Discuss automation in histopathology.

II. Write notes on:

(10 x 6 = 60)

1. Mounting of museum specimens.
2. Principle of AFB on Mycobacterium leprae.
3. Van Gieson technique: its principle, preparation and interpretation.
4. Gomori's Silver impregnation method: its principle, Preparation and interpretation.
5. Verhoeff's method for elastic fibres :- its principles preparation and interpretation.
6. Technique of sections cutting.
7. Honing and different types of hones employed and honing technique.
8. Sharpening of microtome knives.
9. Preparation and use of albuminized and starched slides.
10. Different types of microtomes.

[LP 1019]

OCTOBER 2019

Sub. Code: 1264

**M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS
SECOND YEAR
PAPER IV – TECHNIQUES IN HISTOPATHOLOGY AND CYTOLOGY**

Q.P. Code: 281264

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Fixation. Classify and elaborate on the aims and function of an ideal fixative. Write a note on Automated Tissue Processor.
2. What is Exfoliative Cytology? Write a note on specimen collection, preservation, smearing technique and preparation of smears.

II. Write notes on:

(10 x 6 = 60)

1. What are the stains used for detection of Mucin. Write the principle, procedure and use of PAS stain.
2. Elaborate on the various Embedding Media used in Histopathology. Mention the technique of impregnation.
3. Write a note on Decalcifying agents.
4. What are the properties of a good clearing agent? Mention few clearing agents used in the Histopathology Laboratory.
5. Write a note on Automation in Histopathology.
6. Describe the various faults in section cutting and mention their remedial measures.
7. Write a note on stains used for elastic fibres.
8. Write a note on Bouin's Fixative.
9. What is the principle of Trichrome stain? Mention 2 examples with its uses.
10. Write the principle, procedure and use of Grocott-Gomori Methanamine Silver Stain (GMS).

[LQ 1019]

NOVEMBER 2020

Sub. Code: 1264

(MAY 2020 EXAM SESSION)

M.Sc. MEDICAL LABORATORY TECHNOLOGY

SECOND YEAR

PAPER IV: TECHNIQUES IN HISTOPATHOLOGY AND CYTOPATHOLOGY

Q.P. Code: 281264

Duration: 3 hrs

Total Marks: 100 marks

I. Elaborate notes on: (2 x 20 = 40)

1. Write a note on Immuno Histo Chemistry with its uses. How does it differ from Immuno fluorescence Staining?
2. Elaborate on the Different Histo Chemical Stains used for Identification of Micro organisms. What is the most common Histo Chemical stain used for Identification of H.pylori?

II. Write short notes on: (10 x 6 = 60)

1. Classify Fixatives. What are the Aim and Functions of an Ideal Fixative?
2. Write the Principle, Procedure and uses of PAS Stain.
3. Write a note on Liquid Based Cytology. How does it differ from Conventional PAP Cytology?
4. Write a note on Progressive and Regressing Staining Methodology with suitable example.
5. What is a Clearing Agent? Mention the Properties and uses of clearing agent in Histopathology.
6. Mention the Formalin Fixatives used for Carbohydrates.
7. Write a note on Automation in Histopathology.
8. Write the principle, procedure and uses of Masson Trichrome stain.
9. Write a note of Freezing Microtome and its uses.
10. Write a note on Light Microscopy.

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[AHS 0321]

MARCH 2021

Sub. Code: 1264

(OCTOBER 2020 EXAM SESSION)

M.Sc. MEDICAL LABORATORY TECHNOLOGY

SECOND YEAR (2011-2012 Regulation - From 2013-2014 onwards)

PAPER IV – TECHNIQUES IN HISTOPATHOLOGY AND CYTOPATHOLOGY

Q.P. Code : 281264

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Define Fixation. Classify Fixatives. Elaborate on the Aims and Function of an ideal fixative. Write a note on Formaldehyde with its uses.
2. What is the principle and function of Microscopy? Mention the various types of Microscopes. Elaborate on Light Microscope.

II. Write Short Notes on:

(10x6 = 60)

1. Write a note on Decalcification.
2. Write a note on the 'Faults' that can occur during Paraffin section cutting and mention the remedies for the same.
3. Principle, procedure and use of Papanicolaou stain.
4. What is the procedure for preparation of Schiff reagent?
5. Classify Mounting Media. What are the functions of a good mounting media?
6. Enumerate on stains used to identify Fungal elements.
7. Differentiate between Mordant and Accelerator, with suitable examples.
8. Classify Hematoxylin. What is Chemical Ripening? Write a note on preparation of Hematoxylin stain.
9. What is the use of Microtome? Mention the various types of Microtomes used in histopathology laboratory.
10. Mention the procedure for Cell block. What are its uses?
