

HISTOPATHOLOGY & MEDTECH LAWS

MTLE BOARD EXAM RECALLS



MTLE MARCH
2023 RECALLS



MTLE MARCH
2024 RECALLS



MTLE AUGUST
2023 RECALLS



MTLE AUGUST
2024 RECALLS

STUDY QUESTIONS

500 ITEMS

2022 - 2024

MTLE 2022 RECALLS

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1. Panunumpa ng Propesyonal: Ako, si _____ ng _____ ay taimtim na nanunumpa

- a. pangalan, tirahan
- b. pangalan, paaralan
- c. pangalan, bansa

2. Non-biodegradable wastes are contained in _____ colored bags

- a. black
- b. yellow
- c. red
- d. orange

3. instruments used in obtaining cervical samples for papanicolau smear, except:

- a. glass pipette
- b. ayre's spatula
- c. laryngeal cannula
- d. syringe

4. stat means:

- a. immediately
- b. as soon as possible
- c. now
- d. none of these

5. He invented the Cambridge microtome

- a. Minot
- b. Adams
- c. Trefall
- d. Queckett

6. The following characterizes honing except:

- a. heel to toe
- b. removal of nicks
- c. knife sharpening
- d. uses paddle made of horse leather

7. Clearing is also known as:

- a. Dealcoholization
- b. dehydration
- c. infiltration
- d. embedding

8. polyclonal antibodies used in immunohistochemical techniques are derived from:

- a. rabbit
- b. goat
- c. pig
- d. mice

9. It is a general purpose fixative

- a. mercuric chloride
- b. acetone
- c. chromate
- d. 10% neutral buffered formalin

10. Most rapid embedding technique

- a. manual
- b. vacuum
- c. automatic

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1. 1. Storage for cell blocks

- a) 1 year
- b) 5 years
- c) 10 years
- d) Many years

2. Which can perform red cell antibody screening?

- a) Blood bank
- b) Blood center
- c) Blood station
- d) BCU

BS

- Advocacy and promotion of voluntary blood donation and healthy lifestyle;
- Provision of whole blood and packed red cells;
- Storage, issuance, transport and distribution of whole blood and packed red cells;
- Compatibility testing of red cell units, if hospital based

BCU

- Advocacy and promotion of voluntary blood donation and healthy lifestyle;
- Recruitment, retention, and care of voluntary blood donors;
- Screening and selection of voluntary blood donors;
- Conduct of health education and counseling services;
- Collection of blood (mobile or facility-based) from qualified voluntary blood donors;
- Transport of blood to BC for testing and processing;
- Compatibility testing of red cell units, if hospital based.

BB

- Advocacy and promotion of voluntary blood donation and healthy life;
- Storage and issuance of whole blood and blood components obtained from a BC;
- The following services shall also be provided:

- i. Compatibility testing of red cell units;
- ii. Direct Coombs Test;
- iii. Red cell antibody screening;
- iv. Investigation of transfusion reactions;
- v. Assist the HBTC in the conduct of post-transfusion surveillance (hemovigilance).

BC

- Advocacy and promotion of voluntary blood donation and healthy lifestyle;
- Recruitment, retention and care of voluntary blood donors;
- Collection of blood (mobile or facility-based) from qualified voluntary blood donors;
- Conduct health education and counseling;
- Testing of units of blood for TTIs;
- Processing and provision of blood components;
- Storage, issuance, transport and distribution of units of whole blood and/or blood products to hospitals and other health facilities

3. NRL for Parasitology

RITM

4. NRL for HIV

SACCL

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5. Tissues become soft and shrunken, and tissue blocks **crumble** when sectioned and break up when floated out in a water bath.

6. Review: Impregnation

Paraffin wax 15 minutes

Paraffin wax 15 minutes

Paraffin wax 15 minutes

Paraffin wax 15 minutes

7. Not a blueing agent:

a) Scotts tap water

b) Ammonia water

c) *magnesium carbonate

d) lithium carbonate

8. How can you show empathy to your patient?

a) (?)

b) Practice Manners

c) Acknowledge their pain

d) Say encouraging words

9. A closed wound:

a) Hematoma

b) Abrasion

c) Laceration

d) (?)

10. The aldehydes (formaldehyde, glutaraldehyde) and oxidizing agents (osmium tetroxide, potassium permanganate) act by **cross-linking proteins.**

11. Commercial formalin is buffered with phosphate at a **pH of 7.**

12. Composition of 10% Neutral buffered formalin (NBF) (verbatim ~ Bancroft)

- Tap water **900ml**
- Formaldehyde (37%) **100ml**
- Sodium phosphate, monobasic, **4g monohydrate**
- Sodium phosphate, dibasic, anhydrous **6.5g**

13. Formalin is a saturated solution of 37-40% w/v formaldehyde in water. 10% formalin is therefore roughly equivalent to **4% formaldehyde**

14. Fixatives for electron microscopy:

- Glutaraldehyde
- Osmium tetroxide

15. When to perform decalcification?

- AFTER fixation
- BEFORE impregnation

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16. Defining standards of performance:

- a) Directing
- b) Planning
- c) Organizing
- d) Controlling**

17. Not a professional subject:

- a) Molecular diagnostics
- b) Clinical Microscopy
- c) Hematology
- d) Organic chemistry**

18. Not a fibrocartilage:

- a) intervertebral discs
- b) joint
- c) *ligaments**
- d) tendon

19. Not considered as a laboratory record:

- a) SOP manual
- b) *Laboratory worksheet
- c) Logbook
- d) Laboratory results

20. Non-verbatim: A specimen was submitted in the lab without a medical record number indicated. It can be considered:

- a) Incomplete
- b) Mislabeled
- c) Unlabeled
- d) (?)

21. Identify a sign that a patient has respiratory viral infection:

- a) Difficulty in breathing
- b) virus detected on throat swab
- c) (?)
- d) (?)

22. Antiseptic for blood alcohol analysis should be: **non-alcohol based**

23. What should be first secured by the owner from the DOH to operate a lab?

- a) mayor's permit
- b) BIR (?)
- c) BIR permit
- d) *Permit to construct and design**

24. Who can perform HIV testing? **Medtech with HIV proficiency cert**

25. When performing IHC, it is important to use a _____, so that you can see where the staining from the antibody is in relation to the cellular structures within the tissue.

- a) Counterstain**
- b) Primary stain
- c) Tap water
- d) (?)

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- The most popular counterstain used with chromogenic IHC staining is **hematoxylin**, which stains nuclei blue, contrasting with the brown of HRP-DAB . Hematoxylin is 'blued' with a weakly alkaline solution (tap water is sufficient in most areas but this needs to be determined)
- Additional steps in sample preparation for IHC may include **antigen retrieval** to unmask any epitopes that have been altered by fixation, **permeabilization** to grant the antibody access to intracellular proteins and **blocking** to prevent non-specific staining

26. Why is pretreatment of tissues important in immunohistochemistry?

- a) To enhance staining
- b) (?)
- c) (?)
- d) (?)

27. How can you remove background staining?

- a) Allow to air dry
- b) Apply ethanol
- c) (?)
- d) (?)

28. Rinse hands in a **downward** position to prevent recontamination of hands and wrists

29. Minimum requirement of lab personnel for screening drug laboratory:

- a) ***analyst, head pathologist, authorized specimen collector**
- b) analyst, head pathologist
- c) analyst, authorized specimen collector
- d) head pathologist, authorized specimen collector

30. Who regulates the reagents being used in the laboratory?

- a) **FDA**
- b) HSFRB
- c) DENR
- d) DOST

31. Revised Code of Ethics As I enter the practice of Medical Technology, I shall:

- Accept the responsibilities inherent to being a professional
- Uphold the dignity and respect of my profession and conduct myself a reputation of reliability, honesty, and integrity
- Perform my task with full confidence reliability and accuracy.
- Treat any information I acquired about individuals in the course of my work as strictly confidential
- **Commit myself to continuously improve my professional skills and knowledge**
- Share my knowledge and expertise to my colleagues
- Contribute to the advancement of the professional organization and other allied health organizations
- Act in a spirit of fairness to all and a spirit of brotherhood to other members of the profession
- Restrict my praises, criticisms, views, opinions within constructive limits
- Accept employment from more than one employer only when there is no conflict of interest
- Be dedicated to the use of Clinical laboratory science to promote life and benefit mankind
- Uphold the law and shall not engage in illegal work
- Report any violation of the above principles of professional conduct to the authorized agency and the ethics committee of the organization

To these principles, I hereby subscribe and pledge to conduct myself at all times in a manner befitting the dignity of my profession.

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32. Who cannot practice medical technology in the Philippines?

Inhibition Against the Practice of Medical Technology. No person shall practice or offer to practice medical technology as defined in RA 5527 without having previously obtained a valid certificate of registration from the Board provided that registration shall not be required of the following: a. Duly registered physicians. b. Medical technologist from other countries called in for consultation or as visiting or exchange professors to colleges or universities: Provided, they are only practicing the said function. c. Medical technologists in the service of the United States Armed Forces stationed in the Philippines rendering services as such for members of the said forces only.

33. Purpose of increasing concentrations of alcohol:

- a) to facilitate clearing
- b) facilitate fixation
- c) (?)
- d) (?)

34. Which test is NOT considered unlawful when compulsory testing is done?

- a) HIV testing
- b) Newborn screening
- c) *Drug testing
- d) Paternity testing

35. Hematoxylin can be considered as a basic dye. It is used to stain acidic (or basophilic) structures a purplish blue.

Eosin is an acidic dye. It stains basic (or acidophilic) structures red or pink. This is also sometimes termed 'eosinophilic'. Thus, the cytoplasm is stained pink, by H&E staining.

36. **HEMATOXYLIN:** The formation of precipitate in the stored staining solution indicates deterioration in nuclear staining property. The precipitate that forms on prolonged storage should be filtered off before use.

37. Not done in cytology section:

- a) buffy coat
- b) membrane filtration

38. Color of nuclei and chromatin pattern in Pap's stain: blue to black

- When performed properly, the stained specimen should display hues from the entire spectrum: red, orange, yellow, green, blue, and violet. On a well prepared specimen, the cell nuclei are crisp blue to black. Cells with high content of keratin and glycogen are yellow. Superficial cells are orange to pink, and intermediate and parabasal cells are turquoise green to blue. Metaplastic cells often stain both green and pink at once.

39. The Plan-Do-Check-Act Procedure

- **Plan:** Recognize an opportunity and plan a change.
- **Do:** Test the change. Carry out a small-scale study.
- **Check:** Review the test, analyze the results, and identify what you've learned.
- **Act:** Take action based on what you learned in the study step. If the change did not work, go through the cycle again with a different plan. If you were successful, incorporate what you learned from the test into wider changes. Use what you learned to plan new improvements, beginning the cycle again.

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40. MOST appropriate specimen to cytocentrifuge:

- a) CSF
- b) cyst fluid
- c) pleural
- d) (?)

41. Paraffin wax should be miscible with?

- a) Xylene
- b) ETOH
- c) Acetone
- d) Water

42. If a cut tissue section slips off the glass slide, what will you do?

- a) Smear an albumin on the slide
- b) Return to float out water bath
- c) (?)
- d) (?)

43. The LBC technique is based on a two-step procedure:

- (1) the fixation of the FNA material in an alcohol-based solution (methanol or ethanol), and
- (2) the automated processing of the material to obtain a thin layer of representative cells.

44. 4-6 um – Paraffin section

10-15 um – Celloidin section

45. Not true of autopsy:

- a) a surgical procedure
- b) for forensic investigations
- c) (?)
- d) (?)

46. Closeness of mean test results: Precision

47. A health indicator:

- a) *Life expectancy
- b) Prevalence
- c) Incidence
- d) (?)

48. Review:

- Immunohistochemistry
- Peroxidase blocking
- Liquid-based Cytology
- Roles of Laboratory Manager

- Benchmarking

- is an analysis of comparison of results between laboratories against the standards of excellence of the market. By using it, the laboratory improves its processes, improves services and generates more productivity and opportunities for the organization.

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Autonomy – respect for the patient’s right to self-determination

Beneficence – the duty to ‘do good’

Non-Maleficence – the duty to ‘not do bad’

Justice – to treat all people equally and equitably

Risk management

- process that determines the risk that exists when handling and storing potentially hazardous biological materials

Biobanking

- Biobanking is the process by which samples of bodily fluid or tissue are collected, annotated, stored and redistributed for research to improve understanding of health and diseases.
- Donning and Doffing
- Prevalence and Incidence
- Total lab automation
- Pneumatic tube system

MTLE AUGUST 2023 RECALLS

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1. Ratio of fixative to tissue

Answer: **20:1**

2. The actual concentration of formaldehyde in a “10% formalin” solution is

Answer: **4%**

3. The PRC is a three-man commission attached to

Answer: **DOLE**

4. Which of the following is NOT a continuing education activity

Answer: **Vlogs**

5. Which of the following is the most widely used fixative in electron microscopy?

Answer: **Glutaraldehyde**

6. Which of the following causes the characteristics foul smell produced by cadavers?

Answer: **Cadaverine**

7. COR is not issued to individuals less than ___ yrs old

Answer: **21 years old**

8. Physiological cell death

Answer: **Apoptosis**

9. Accelerates fixation

Answer: **Microwave oven**

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1. Which of the following is correct?

- A. Northern Blot: DNA
- B. Southern Blot: DNA**
- C. Northern Blot: RNA**
- D. Southern Blot: RNA

2. Correct base pairs: **A;T G;C**

3. Where should Acknowledgement be placed in a research paper?

- A. Before title page
- B. After title page**
- C. Table of contents
- D. End of paper

4. Which of the following components of the Papanicolau stain stains nothing?

- A. Hematoxylin
- B. OG-6
- C. Eosin Azure
- D. Bismarck Brown Y**

5. Perls' Prussian blue reaction for Ferric Iron:

- A. 1% aqueous potassium ferrocyanide & 2% aqueous hydrochloric acid**

6. What does Z-score represent?

- A. Measures how many standard deviations above or below the mean a data point is**

7. All of the following are components of Bouin's solution, EXCEPT:

- A. Glacial acetic acid
- B. Saturated picric acid
- C. Ethanol**
- D. Formaldehyde

8. Filing for the MTLE opens _____ before the board exam starts

- A. 2 months
- B. 3 months**
- C. 6 months

9. Reference laboratory for HIV testing?

- A. EAMC
- B. NKTi
- C. San Lazaro Hospital/SACCL**
- D. RITM

10. Caused by friction against a rough surface:

- A. Laceration
- B. Hematoma
- C. Abrasion**
- D. Contusion

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11. Transition between dehydration and infiltration of embedding medium:

- A. Clearing**
- B. Impregnation
- C. Rehydration
- D. Dehydration

12. Key factors of embedding, except

- A. Thickness of tissue
- B. Duration of fixation
- C. Orientation of tissue**
- D. Composition of embedding medium

13. The following are violation of RA 5527, EXCEPT:

- A. Refusal to display COR inside the laboratory
- B. Release of fraudulent result
- C. Using expired or invalid COR
- D. Refusal to identify gender identity**

14. Best way to communicate patient result to provider?

- A. Writing
- B. Telephone
- C. Verbal
- D. Electronic**

15. Formaldehyde fixation temperature.

- A. 28 C
- B. 32 C
- C. Ambient temperature
- D. Room temperature**

16. Physical preservation of tissue EXCEPT:

- A. Heat
- B. Vapor**
- C. Microwave
- D. Freeze drying

17. All of the following can be for frozen section, except:

- A. Ovary
- B. Tongue*****
- C. Fats

18. First step before purchasing a new machine/equipment

- A. Identify the cost of the test
- B. Do machine evaluation
- C. Conduct a needs assessment survey*****

19. Validity of drug test result:

- A. 6 months
- B. 1 year**
- C. 3 months

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20. Paraffin wax should be miscible with

- A. Water
- B. Acetone
- C. Xylene**
- D. Alcohol

21. Temperature that paraffin wax will turn to its liquid state

- A. 80*****
- B. 100
- C. 50
- D. 60

22. Clearing agent should be:

- A. Low refractive index
- B. High refractive index**

23. Reference laboratory for infectious diseases other than sexually transmitted diseases?

- A. NKTI
- B. SACCL
- C. RITM**
- D. EAMC

24. What does n mean in the Mean formula?

- A. Sum of all data points
- B. Number of data points**
- C. Sum of all data sets
- D. Number of all data sets

25. GWA to pass the board exam is at least:

- A. 60%
- B. 75%**
- C. 70%
- D. 80%

26. Which stains glycogen and mucopolysaccharides?

- A. PAS**
- B. Giemsa
- C. Gram

27. Which of the following best describes an e-signature?

- A. Equivalent to physical sign**

28. New curriculum of BSMT involves ____ of internship program

- A. 6 months
- B. 12 months**

29. All of the following are Romanovsky's Stain, except:

- A. Hematoxylin**
- B. Leishman
- C. May-Grunwald
- D. Giemsa

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30. Who performs autopsy?

- A. Coroner
- B. Pathologist**
- C. Diener
- D. Investigator

31. Substitute for 95% Ethanol for cytology except:

- A. Corn syrup
- B. Distilled water**
- C. Absolute alcohol
- D. Hair spray

32. Which of the following individual is not allowed to practice medical technology as per RA 5527?

- a. A physician who is performing a dipstick test at a primary facility
- b. Philippine- borne, US- licensed medical technologist**
- c. An obstetrician who is performing a pregnancy test on a patient
- d. Thai- licensed clinical laboratory scientist who is working as a consultant in a reference laboratory

33. The last container in an autotechnicon is filled with:

- a. xylene
- b. formalin
- c. paraffin**
- d. acetone

34. Ripening action for hematoxylin

- a. fixation
- b. clearing
- c. reduction
- d. oxidation**

35. What substance should be added to prevent clotting when collecting body fluids?

- a. heparin**
- b. EDTA
- c. aspirin
- d. vitamin K

36. Which of the following is known as the outer part of the organ?

- a. serosa
- b. cortex**
- c. medulla
- d. capsule

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1. Which stain is used to determine the adequacy of a fluid aspirate?

- A. Romanowsky stain
- B. Hematoxylin
- C. Eosin
- D. ?

2. Which of the following is not commonly used in histopathology laboratories?

- A. Shaker
- B. Centrifuge
- C. ?
- D. ?

3. Which of the following are components of connective tissue?

- A. Ground substance**
- B. Extracellular matrix
- C. Fats
- D. Lymph

4. What is the most likely cause of the "Venetian blinds" appearance in tissue sections?

- A. Insufficient fixation
- B. Insufficient dehydration

C. Nicked blade

5. What is the most likely cause of immediate separation of tissue from the wax when placed in the flotation water bath?

A. Insufficient or incomplete paraffinization

- B. Inadequate fixation
- C. ?
- D. ?

6. What does hematoxylin stain?

- A. Nucleus**
- B. Cytoplasm

7. The temperature for fixation should not exceed___ because it will denature protein

A. 60 (?)

- B. 65
- C. 72
- D. 78

8. Most common dehydrating agent: **Ethanol**

9. Mary is HIV-positive, and her partner is HIV-negative. What is the best advice for them?

A. Post-exposure prophylaxis (PEP)

B. Follow antiretroviral therapy (ART)

C. Practice safe sex D. ?

10. Feulgen stain is used to stain? **DNA**

(MOSTLY MTLAWS QUESTIONS)

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HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

1. The first and most important procedure in the preparation for microscopic examination is the choice of:

- a. Fixative
- b. Dehydrating agent
- c. Clearing agent
- d. Staining technique

2. Staining process by which sections are stained with simple aqueous alcoholic solutions of dye is:

- a. Indirect staining
- b. Regressive staining
- c. Progressive staining
- d. Direct staining

3. In the preparation of a working solution for both Ehrlich's and Harris hematoxylin, hematoxylin is initially dissolved in:

- a. Distilled water
- b. Glacial acetic acid
- c. Ethyl alcohol
- d. Deionized water

4. Chemical substances that heighten color intensity, crispness, and selectivity of a stain are called:

- a. Accentuators
- b. Differentiators
- c. Mordants
- d. Decolorizers

5. During double embedding, a tissue specimen is initially infiltrated using _____ then embedded using _____.

- a. Celloidin, paraffin
- b. Paraffin, celloidin
- c. Celloidin, gelatin
- d. Paraffin, gelatin

6. Polyclonal antibodies used in immunohistochemical techniques are often derived from:

- a. Rabbit
- b. Goat
- c. Pig
- d. Mice

7. The oldest of all stains used for removal of mercuric fixative artifact pigment as well as staining amyloid and starch is:

- a. Congo red
- b. Methylene blue
- c. Neutral red
- d. Iodine

8. The thickness of tissues for frozen sections is

- a. 5-10 microns
- b. 10-15 microns
- c. 2-6 microns
- d. 1-5 microns

9. All are compound fixatives, except:

- a. 10% formalin
- b. Carnoy's fluid
- c. Newcomer's fluid
- d. Polychrome

10. The commonly used and best dehydrating agent is

- a. Ethyl alcohol
- b. Butyl alcohol
- c. Acetone
- d. Dioxane

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

11. Decalcification is accomplished by immersing the bone or hard tissue in

- a. Strong ammonia
- b. 5% nitric acid
- c. 70% alcohol
- d. 5% glacial acetic acid

12. The most popular and commonly used embedding medium is

- a. Carbowax
- b. Paraplast
- c. Paraffin
- d. Celloidin

13. The turnover of results for frozen sections should be within:

- a. 24 hours
- b. 5-15 minutes
- c. 1 week
- d. 3 days

14. Cytological picture conclusive of malignancy:

- a. Class II
- b. Class III
- c. Class IV
- d. Class V

15. To demonstrate antibodies and enzymes in tissues, the following procedure is used:

- a. Special staining technique
- b. Electron microscopy
- c. Frozen section examination
- d. Routine H&E

16. In most reactions using the reticulin staining methods, the color of reticulin fibers is

- a. Blue
- b. Black
- c. Green
- d. Red

17. What percentage of formalin is distributed commercially?

- a. 10%
- b. 40%
- c. 100%
- d. 4%

18. The Levaditi's staining method is used to demonstrate:

- a. Fungi
- b. Gram-positive bacteria
- c. Acid-fast bacilli
- d. Spirochetes

19. An autopsy technique in which thoracic, cervical, abdominal, and pelvic organs are removed all together and subsequently dissected into organ blocks.

- a. Technique of R. Virchow
- b. Technique of C. Rokitansky
- c. Technique of A. Ghon
- d. Technique of M. Letulle

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

20. In autopsy, microbiological culture to demonstrate infection of the central nervous system can use which of the following specimen:

- a. Fresh serum
- b. Fresh cerebrospinal fluid
- c. Whole blood
- d. Fresh brain tissue

21. The cutting facet found on the tapered edge of all knives, the sides of which are more acutely inclined towards each other than the side proper forms the:

- a. Wedge angle
- b. Bevel angle
- c. Right angle
- d. Clearance angle

22. An excellent clearing agent for nervous tissues and lymph nodes but very toxic and expensive is:

- a. Xylene
- b. Toluene
- c. Chloroform
- d. Acetone

23. The best mounting media for fat stains is:

- a. Xylol
- b. Permount
- c. Glycerin jelly
- d. Canada balsam

24. Slices of organs taken at autopsy (except lung) should not be

- a. More than 10 mm thick
- b. Less than 5 mm thick
- c. More than 5 mm thick
- d. Less than 10 mm thick

25. Shortly bursting a small piece of tissue with carbon dioxide for a few minutes will

- a. Harden the tissue for easy cutting
- b. Break the tissue into small fragments
- c. Freeze the tissue
- d. Decalcify the tissue

26. Mounting solution is placed on the slide after it has passed

- a. Alcohol
- b. Xylol
- c. Hematoxylin
- d. Eosin

27. One of these is not a special stain for fat

- a. Oil red O
- b. Congo red
- c. Sudan IV
- d. Scharlach R

28. If a blue dye stains a tissue component violet, the stain is called:

- a. Dichromatic
- b. Birefringent
- c. Orthochromatic
- d. Metachromatic

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

29. Liquefactive necrosis is associated with which of the following organs:

- a. Brain
- b. Heart
- c. Pancreas
- d. Spleen

30. Autopsy forensic reports should be kept:

- a. For 3 years
- b. For 10 years
- c. Indefinitely
- d. For 20 years

31. Type of microtome usually incorporated in the cryostat machine:

- a. Minot
- b. Cambridge
- c. Sliding
- d. Ultrathin

32. The clearance angle in rotary microtome is

- a. $27-32^{\circ}$
- b. $30-35^{\circ}$
- c. $5-10^{\circ}$
- d. $15-20^{\circ}$

33. A special method of smear preparation whereby the surface of a freshly cut piece of tissue is brought into contact and pressed onto the surface of a clean glass slide, allowing cells to be transferred directly to the slide for examination:

- a. Impression smear
- b. Pull apart
- c. Streaking
- d. Crushing

34. All of the following tests are used for the detection of the completion of decalcification, except:

- a. Physical or mechanical
- b. Absorption test
- c. Chemical test
- d. X-ray or radiologic test

35. The last container through which the surgical tissue sections pass through in an autotechnicon contains:

- a. Formalin
- b. Alcohol
- c. Acetone
- d. Paraffin

36. Xylene turns milky as soon as tissue is placed in it. What could be the possible cause?

- a. Incomplete dehydration
- b. Incomplete fixation
- c. Prolonged dehydration
- d. Prolonged fixation

37. Airholes found in tissue during trimming is:

- a. Drying out of tissue before actual fixation
- b. Incomplete fixation
- c. Incomplete impregnation
- d. Prolonged clearing

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

38. It is the process of removing mercuric deposits from fixed tissues by immersing them in alcoholic iodine solution prior to staining.

- a. Post-chromatization
- b. De-zenkerization
- c. Washing out
- d. Post-fixation immersion

39. It is a special way of preserving tissues by quenching and subsequent desiccation of fresh tissues by sublimation without the use of any chemical fixative.

- a. Freeze substitution
- b. Freeze drying
- c. Frozen sectioning
- d. Cryostat procedure

40. This method is recommended for processing of whole eye sections.

- a. Wet celloidin method
- b. Dry celloidin method
- c. Nitrocellulose method
- d. Gelatin impregnation

41. It is an instrument equipped with a warm plate to manage the impregnated specimen, and a cold plate for rapid solidification of the block.

- a. Autotechnicon
- b. Elliot Bench-Type processor
- c. Vacuum embedding
- d. Tissue Tek

42. Which of the following matches are correct?

- 1. Rocking Microtome = for paraffin embedded tissues
- 2. Rotary Microtome = for electron microscopy
- 3. Sliding Microtome = for celloidin embedded sections
- 4. Ultrathin Microtome = for frozen sections

- a. 1 and 2
- b. 1 and 3
- c. 1, 2 and 3
- d. 1, 2, 3 and 4

43. This is the simplest method of differential staining of collagen using a mixture of picric acid and acid fuchsin.

- a. Von Kossa's stain
- b. Van Gieson's stain
- c. Verhoeff's stain
- d. Masson's trichrome stain

44. Most commonly used antibody for immunohistochemistry

- a. IgG
- b. IgM
- c. IgG and IgM
- d. IgG, IgM, and IgA

45. Aplastic anemia and bone marrow disease is attributed mostly to:

- a. Xylene
- b. Toluene
- c. Chloroform
- d. Benzene

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

46. Widely used adhesive in IHC:

- a. Poly-L-Lysine
- b. APES
- c. XAM
- d. DPX

47. The fluorescent stain for amyloid is:

- a. Congo red
- b. Argentaffin
- c. Thioflavin T
- d. Toluidine blue

48. This chemical fixes and precipitates nucleoproteins and for this reason is an essential constituent of most compound nuclear fixatives:

- a. Glacial acetic acid
- b. Chromic acid
- c. Picric acid
- d. Formic acid

49. The dehydration process is best done by the use of:

- a. Descending grades of alcohol
- b. Acetone
- c. Xylol
- d. Ascending grades of alcohol

50. All of these are the advantages of Flemming's solution fixative for nuclear preservation, except:

- a. Less volume required for fixation
- b. Permanently fixes fat
- c. Excellent fixative for chromosomes
- d. Good penetrating agent

51. This is added to mercuric chloride stock solution in order to form Zenker's solution:

- a. Formaldehyde
- b. Glacial acetic acid
- c. Sodium iodate
- d. Potassium permanganate

52. De-zenkerization is the process of removing mercuric deposits in tissues. This is done by:

- a. Immersing the tissues in alcoholic iodine solution before staining
- b. Immersing the tissues in saturated alcoholic picric acid solution before staining
- c. Immersing the tissues in a 1% solution of potassium hydroxide in 80% alcohol before staining
- d. Immersing the tissues in 10% methanol before staining

53. In the TNM grading or staging system for cancers, T stands for:

- a. Size of the tumor
- b. Involvement of the nodes
- c. Metastasis
- d. None of the above

54. Mercuric chloride fixatives:

- 1. Zenker's fluid
- 2. Heidenhain Susa solution
- 3. Helly's solution
- 4. B5

a. 1, 2, 3, 4

b. 1, 2, 3

c. 1, 2, 4

d. 1, 3, 4

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

55. Chromate fixatives:

1. Regaud's fluid
2. Orth's fluid
3. Moeller's fluid
4. B5

a. 1, 2, 3, 4

b. 1, 2, 3

c. 1, 2, 4

d. 1, 3, 4

56. Lead, when used as fixative, is usually in the form of:

a. 4% lead chloride

b. 4% lead sulfate

c. 4% lead acetate

d. 4% plumbic acid

57. Picric acid fixatives, except:

1. Helly's

2. Heidehain Susa solution

3. Orth's fluid

4. B5

a. 1, 2, 3, 4

b. 1, 2, 3

c. 4 only

d. None

58. Alcohol fixatives:

1. Carnoy's

2. Gendre's

3. Newcomer's

4. Flemming's

a. 1, 2, 3, 4

b. 1, 2, 3

c. 1, 2

d. 2, 3

59. Osmium tetroxide fixative:

1. Helly's

2. Heidenhain Susa

3. Zenker's

4. Flemming's

a. 1, 2, 3, 4

b. 2, 3, 4

c. 2, 3

d. 4 only

60. Segmentation of nucleus:

a. Pyknosis

b. Karyorrhexis

c. Karyolysis

d. Karyokinesis

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

61. Cytologic characteristics of normal pregnancy:

1. Marked progesterone effect
2. Absence of ferning
3. Doderlein-filled dirty background on smear
4. Less than 30% superficial cells

a. 1, 2, 3, 4

b. 1, 2, 3

c. 2, 3, 4

d. 1 and 2

62. The following are criteria for microscopic diagnosis of cancer cells:

1. Pleomorphism
2. Hyperchromatism
3. Multinucleation
4. Atypical mitotic figure

a. 1, 2, 3, 4

b. 1, 2, 3

c. 2, 3, 4

d. 3 and 4

63. Secondary fixation can be done:

1. Before dehydration
2. Before staining
3. Depends on circumstances

a. 1, 2, 3

b. 1 and 2

c. 1 only

d. 2 only

64. Cytologic preparation of vulvar scrape is useful in:

- a. Patients with hysterectomy
- b. Hormonal evaluation
- c. Localization of vaginal adenosis

d. Detection of herpetic lesions or carcinomas

65. Which of the following statements is/are true regarding tissue sections?

1. Paraffin sections are usually cut between 4 to 6 microns
2. Celloidin sections are usually cut between 10 to 15 microns
3. Ultrathin microtome is used to cut tissue sections at 0.5 microns
4. Disposable blades for microtomes can cut 2 to 4 microns thick sections

a. 1, 2, 3, 4

b. 1, 2, 3

c. 1 and 3

d. 1 only

66. Recommended size of tissues in order to maintain adequate fixation:

a. 1 to 3 mm²

b. 2 to 4 mm²

c. 3 to 5 mm²

d. 4 to 6 mm²

67. During dehydration, the amount in each stage should not be less than ____ times the volume of the tissue.

a. 5

b. 10

c. 15

d. 20

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

68. Mercury-containing fixative used for pituitary glands, bone marrow, and blood-containing organs.

- a. Zenker's
- b. Zenker-Formol
- c. Heidenhain Susa
- d. B5 Fixative

69. A slow acting clearing agent that can be used when double embedding techniques are required:

- a. Clove oil
- b. Cedarwood oil
- c. Methyl salicylate
- d. Aniline oil

70. Mounting medium

- 1. APES
- 2. DPX
- 3. Poly-L-Lysine
- 4. XAM

- a. 1, 2, 3, 4
- b. 1, 2, 4
- c. 1 and 3
- d. 2 and 4

71. Resealing of the block is recommended:

- a. To prevent drying of tissues
- b. To prevent crumbling of tissue blocks
- c. To prevent deterioration of tissue within the block
- d. To protect the block from direct heat

72. Which type of microtome is used for cutting celloidin embedded sections?

- a. Rocking microtome
- b. Rotary microtome
- c. Sliding microtome
- d. Freezing microtome

73. Which of the following are argyrophilic?

- a. Collagen
- b. Elastic fibers
- c. Reticulin
- d. Hyaline

74. In the standard sliding microtome:

- 1. The block is stationary
- 2. The block is moveable
- 3. The knife is stationary
- 4. The knife is moveable

- a. 1 and 3
- b. 1 and 4
- c. 2 and 3
- d. 2 and 4

75. In immunohistochemistry, this is the usual animal used for monoclonal antibody production.

- a. Sheep
- b. Goats
- c. Mice
- d. Horses

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

76. An intermediate filament that is always positive for melanomas and schwannomas.

- a. Actin
- b. TTF
- c. Vimentin
- d. Cytokeratin

77. Which of the following cells have a “honeycomb appearance” when viewed on end?

- a. Endometrial cells
- b. Parabasal cells
- c. Endocervical glandular cells
- d. Pregnancy cells

78. Fixation is enhanced by:

- a. Presence of fat and mucus
- b. Fixing larger tissues
- c. Cold temperature
- d. Agitation

79. The flotation water bath temperature should be maintained at:

- a. 45-50°C
- b. 6-10°C below the melting point of the wax
- c. Both
- d. None

80. Inflammation characterized by hypersecretion of the mucosa:

- a. Fibrinous
- b. Catarrhal
- c. Purulent
- d. Serous

81. The following are stains to demonstrate carbohydrates, except:

- a. Nike blue sulfate
- b. Alcian blue
- c. Best carmine
- d. Fresh frozen azure A

82. All of the following are staining method used to demonstrate CNS elements, except:

- a. Bielschowsky Technique
- b. Bodian's Stain
- c. Cresyl fast violet
- d. Modified Fouchet's technique

83. The following are adhesives that can be used for gynecological specimen, except:

- a. Mayers Egg Albumin
- b. Pooled Human Serum
- c. Leuconostoc Culture
- d. Combination of celloidin and ether

84. The OG-6 counterstain in the Pap's smear procedure stains the cytoplasm of:

- a. Superficial cells
- b. Parabasal cells
- c. Intermediate cells
- d. All of the above

85. This quantitative evaluation parameter for vaginal cytology assess the percentage of cells coming from the main layers of the epithelium.

- a. Pyknotic Index
- b. Maturation Index
- c. Acidophilic Index
- d. Eosinophilic Index

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

86. All of the following are true statements regarding the collection of body cavity effusions, except:

- a. Must be collected in a clean and dry container
- b. Must be submitted fresh to the laboratory
- c. 5-10 mL is the minimum amount required
- d. Refrigerate if there will be a delay

87. The basic FNAB technique uses what needle and syringe measurements?

- a. 25-gauge needle and 10-mL syringe
- b. 25-gauge needle and 5-mL syringe
- c. 23-gauge needle and 10-mL syringe
- d. 23-gauge needle and 5-ml syringe

88. This manner of autopsy is commonly done in female cadavers wherein the cadaver is opened from both shoulder regions down to the xiphoid area then incised down to the pubis.

- a. Complete
- b. Partial
- c. Y-Shaped Incision
- d. Straight Cut Incision

89. The following are true about ripening by chemical oxidation, except:

- a. Retains staining ability for longer time
- b. Achieved in shorter time
- c. Converts hematoxylon to hematein
- d. Uses chemical oxidants, such as mercuric oxide and sodium iodate

90. The following are agents for blueing, except:

- a. Lithium carbonate
- b. Alcohol ammonia
- c. Scott's tap water
- d. Distilled water

91. To remove the coverslip for re-staining purposes, slides are dipped in:

- a. Acid alcohol
- b. Water
- c. Xylene
- d. H&E

92. Which type of hematoxylin is used for demonstrating striations of cardiac and voluntary muscles?

- a. PTAH
- b. Weigert's Iron Hematoxylin
- c. Ehrlich's Hematoxylin
- d. Harris Hematoxylin

93. What happens if the tissue is placed directly in 100% alcohol?

- a. More rapid dehydration which hastens routine procedure
- b. Enhances subsequent staining reaction
- c. Rapid removal of water causes shrinkage
- d. Fixes tissue better

94. What substance is used to test water content in alcohol used for dehydration?

- a. Anhydrous copper sulfate
- b. Anyhydrous copper oxide
- c. Anhydrous copper silicide
- d. Anhydrous copper sulfide

95. All of the following statements are true about paraformaldehyde, except:

- a. Causes turbidity in formalin
- b. Forms from the breakdown of formalin into monomeric segments
- c. Can be removed by filtration
- d. Prevented from forming due to addition of 10-16% methanol

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

96. Brown-black granules present in the specimen due to acid formaldehyde hematin can be removed by all of the following, except:

- a. Kardasewitsch method
- b. Lillie's method
- c. Alcoholic potassium hydroxide
- d. Glacial acetic acid

97. This fixative is used to demonstrate early degenerative processes and tissue necrosis; can be used for fixation of Rickettsia and other microorganisms

- a. Regaud's Fluid
- b. Moller's Fluid
- c. Chromic Acid
- d. Orth's Fluid

98. For museum preparations, the volume of the fixative should not be less than _____ times the volume of the specimen.

- a. 10
- b. 30
- c. 40
- d. 50

99. Reagent that acts as both a fixative and dehydrating agent and is highly recommended for the diagnosis of rabies

- a. Trichloroacetic Acid
- b. Glacial Acetic Acid
- c. Acetone
- d. Chromic Acid

100. Aldehyde-based fixative intended for fixing sputum specimens and for microincineration techniques

- a. Gendre's Fluid
- b. Newcomer's Fluid
- c. Helly's Solution
- d. Bouin's Solution

101. The yellow color imparted by the use of picric acid may be removed by treatment via:

- a. Basic dyes
- b. Lithium carbonate
- c. Tap water
- d. Washing out

102. Tissue sections dehydrated using this highly toxic reagent tend to ribbon poorly.

- a. Acetone
- b. Dioxane
- c. Ethylene Glycol
- d. Alcohol

103. Non-chemical technique/s useful in preserving neurochemical substances in brain, such as acetylcholine.

- a. Microwave Technique
- b. Vacuum Technique
- c. Heating Technique
- d. All of the above

104. Tissues cleared using _____ tends to become adulterated.

- a. Cedarwood Oil
- b. Clove Oil
- c. Aniline Oil
- d. Oil of Bergamot

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

105. Use of EDTA as a decalcifying agent inactivates alkaline phosphatase activity. What reagent is added to restore enzymatic activity?

- a. Magnesium chloride
- b. Acid lithium carbonate
- c. Copper sulfate
- d. Lead bromide

106. All of the following are classified as tissue softeners, except:

- a. 4% aqueous phenol
- b. 1-2% HCl in 70% alcohol
- c. Molliflex
- d. 10% nitric acid

107. Water-soluble wax:

- a. Paraplast
- b. Carbowax
- c. Embeddol
- d. Bioloid

108. Horse leather intended for polishing and sharpening of the cutting edges of knives are often treated with the following reagents, except:

- a. Vegetable oil
- b. Castor oil
- c. Mineral oil
- d. All of the above

109. The ripening agent used in Harris hematoxylin is:

- a. Sodium iodate
- b. Mercuric oxide
- c. Alcoholic iodine
- d. Hydrogen peroxide

110. All of the following are considered resinous mounting media, except:

- a. Apathy
- b. Canada Balsam
- c. Clarite
- d. XAM

111. Which type of epithelial lining is found in the lining of the digestive tract from the stomach down to the anus?

- A. Simple squamous epithelium
- B. Simple cuboidal epithelium
- C. Simple columnar epithelium
- D. Stratified cuboidal epithelium

112. What type of tissue lines the bladder?

- A. Simple squamous epithelium
- B. Simple cuboidal epithelium
- C. Simple columnar epithelium
- D. Stratified squamous epithelium
- E. Transitional epithelium

113. What type of epithelial cells are as tall as they are wide?

- A. Simple
- B. Stratified
- C. Squamous
- D. Cuboidal
- E. Columnar

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

114. What do you call the simple squamous epithelium that lines the blood vessels?

- A. Epithelioid tissue
- B. Mesothelium
- C. Endothelium
- D. Transitional
- E. Pseudostratified

115. Which of the following is NOT primarily composed of connective tissue?

- A. Blood
- B. Bone
- C. Tendon
- D. Intervertebral disc
- E. Myometrium

116. Which of the following is NOT a fiber found in connective tissue?

- A. Collagen fiber
- B. Elastic fiber
- C. Reticular fiber
- D. Purkinje fiber
- E. All of the above are fibers found in connective tissue

117. What type of adipose tissue tends to increase as humans age?

- A. Brown adipose tissue
- B. White adipose tissue
- C. Unilocular adipose tissue
- D. Multilocular adipose tissue
- E. Both b and c

118. Which of the following would be best suited to differentiate collagen fibers from other fibers?

- A. Wright's stain
- B. Hematoxylin and eosin stain
- C. Sudan stain
- D. Silver impregnation
- E. Masson's trichrome stain

119. Which of the following stain blue with H&E stain?

- A. Cytoplasm
- B. Collagen fibers
- C. Nucleus
- D. Elastic fibers
- E. Decalcified bone matrix

120. What are Sudan stains used primarily for?

- A. Blood
- B. Fat
- C. Nervous tissue
- D. Elastic fibers
- E. Decalcified bone matrix

121. What is Mucicarmin stain used primarily for?

- A. Blood
- B. Fat
- C. Nervous tissue
- D. Elastic fibers
- E. Epithelial mucin

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

122. What is Wright's stain used primarily for?

- A. Blood
- B. Fat
- C. Nervous tissue
- D. Elastic fibers
- E. Decalcified bone matrix

123. What color do elastic fibers stain with Verhoeff Elastic stain?

- A. Red/Orange
- B. Pink/red
- C. Purple/Red
- D. Blue/black
- E. Green/blue

124. During the preparation of a routine H&E slide, what step occurs after the tissue is preserved?

- A. Fixation
- B. Embedding in paraffin
- C. Staining
- D. Slicing
- E. Dehydration

125. During the preparation of a routine H&E slide, how is the tissue preserved?

- A. Fixation
- B. Embedding in paraffin
- C. Staining
- D. Slicing
- E. Dehydration

126. Which of the following would be best suited to visualize reticular fibers?

- A. Wright's stain
- B. Hematoxylin and eosin stain
- C. Sudan stain
- D. Silver impregnation
- E. Masson's trichrome stain

127. Which of the following would be best suited to visualize lipid?

- A. Wright's stain
- B. Hematoxylin and eosin stain
- C. Sudan stain
- D. Silver impregnation
- E. Masson's trichrome stain

128. Ideal amount of the fixative:

- A. 1 – 2X the volume of the specimen
- B. 5 – 10X the volume of the specimen
- C. 10 – 15X the volume of the specimen
- D. 10 – 20X the volume of the specimen

129. All of the following are microanatomical fixatives, EXCEPT:

- A. 10% Formalin
- B. Zenker's solution
- C. Bouin's solution
- D. Flemming's fluid

130. Best fixative for the nervous system:

- A. Formalin fixative
- B. Permanganate fixative
- C. Lead fixative
- D. Chromate fixative

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

1131. Fixative recommended for fixing small pieces of liver, spleen, connective tissue fibers and nuclei:

- A. Zenker's fluid
- B. Orth's fluid
- C. Heidenhain's Susa solution
- D. Regaud's fluid

132. Excellent microanatomic fixative for pituitary gland, bone marrow and blood containing organs such as spleen and liver:

- A. Bouin's solution
- B. Helly's fluid
- C. Carnoy's fluid
- D. Flemming's solution

133. All mercurial fixing solutions lead to the formation in tissues of diffuse BLACK granules and these mercury deposits must be removed BEFORE STAINING. Removal of mercuric chloride deposit is accomplished by:

- A. Saturated solution of iodine
- B. Sodium thiosulfate
- C. Distilled water
- D. Saturated solution of picric acid

134. Considered to be the MOST RAPID fixative/ recommended for fixing chromosomes, lymph glands and urgent biopsies:

- A. Gendre's fixative
- B. Carnoy's fluid
- C. Newcomer's fluid
- D. Flemming's solution

135. Fixatives used mainly for acid mucopolysaccharides:

- A. Lead fixatives
- B. Mercurial fixatives
- C. Chromate fixatives
- D. Picric acid fixatives

136. Most widely used fixative for electron microscopy:

- A. Acetone
- B. Zenker's fluid
- C. Osmium tetroxide
- D. Trichloroacetic acid

137. The process of decalcification is best performed:

- A. Before fixation
- B. After fixation
- C. After impregnation
- D. None of these

138. Most ideal and most reliable method of determining extent of decalcification:

- A. Physical test
- B. Chemical test
- C. X-ray or radiological test
- D. Adsorption test

139. The fastest chemical solution in decalcifying tissues is:

- A. Trichloroacetic acid
- B. Nitric acid
- C. Formic acid
- D. Versene

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

140. Fat cells and enzymes are best demonstrated in:

- A. Paraffin section
- B. Plastic embedded section
- C. Celloidin section
- D. Frozen section

141. The following methods are done for drying sections on slide, EXCEPT:

- A. On a hot plate at 45-55°C for 30-45 min.
- B. On a Bunsen flame
- C. In an incubator at 37°C for 3 hours
- D. In a wax oven at 56-60°C for 2 hours

142. Most probable cause when clearing agent turns milky as soon as the tissue is placed in it:

- A. Incomplete fixation
- B. Prolonged fixation
- C. Incomplete dehydration
- D. Prolonged dehydration

143. Adhesive added to the water in the floating-out bath – most convenient alternative to direct coating of slides:

- A. Plasma
- B. Gelatin
- C. Starch paste
- D. Dried albumin

144. This technique entails the use of specific dyes, which differentiate particular substances by staining them with a color that is different from that of the stain itself:

- A. Orthochromatic staining
- B. Metachromatic staining
- C. Counterstaining
- D. Vital staining

145. Application of a different color or stain to provide contrast and background to the staining of the structural component to be demonstrated:

- A. Orthochromatic staining
- B. Metachromatic staining
- C. Counterstaining
- D. Vital staining

146. The active dye (coloring agent) in hematoxylin solution is:

- A. Hematin
- B. Hematein
- C. Hematoxylin
- D. Hematoxylon

147. All of the following are chemical oxidizing agent/ripening agent for hematoxylin, EXCEPT:

- A. Sodium iodate
- B. Mercuric oxide
- C. Hydrogen peroxide
- D. Ammonium alum

148. Ripening agent for Harris' hematoxylin:

- A. Sodium iodate
- B. Mercuric oxide
- C. Potassium permanganate
- D. Hydrogen peroxide

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

149. Glacial acetic acid added to hematoxylin will:

- A. Inactivate stain
- B. Decrease nuclear staining
- C. Enhance cytoplasmic staining
- D. Enhance nuclear staining

150. Not a data privacy issue:

- A. Sharing of anonymous information
- B. Access code
- C. Storage location
- D. Sharing to social media

151. Staining result in the routine hematoxylin and eosin method:

- A. Nuclei pink, cytoplasm blue to blue-black
- B. Nuclei blue to blue-black, cytoplasm pink
- C. Nuclei and cytoplasm pink
- D. Nuclei and cytoplasm blue-black

152. Staining method for glycogen:

- A. PAS technique
- B. Langhan's iodine stain
- C. Best Carmine method
- D. All of these

153. Lipids in Sudan IV are stained:

- A. Black
- B. Blue black
- C. Red
- D. Deep blue to violet

154. Continuous abnormal proliferation of cells without control causes an overgrowth of tissue or tumor cells:

- A. Anaplasia
- B. Hyperplasia
- C. Neoplasia
- D. Dysplasia

155. The dissolving of cells by enzymatic action is:

- A. Rotting
- B. Decay
- C. Autolysis
- D. Putrefaction

156. A malignant tumor is least characterized by:

- A. Metastases
- B. Mitotic figures
- C. Encapsulation
- D. Invasion of adjacent tissues

157. Father of modern histology

- A. Rudolf Virchow
- B. Marie François Xavier Bichat
- C. Hippocrates
- D. Gregor Mendel

158. The methodology for a Lean Six Sigma quality improvement team will include consideration of all the following factors, except:

- A. Define
- B. Measure
- C. Analyze
- D. Communicate

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

159. In Lean Six Sigma team roles, black belts are the:

- A. Project coaches/leaders
- B. Project team members
- C. Project sponsors
- D. None of these

160. Black belts dedicate _____ of their time to quality improvement projects, proactively addressing process and quality problems.

- A. 20%
- B. 40%
- C. 80%
- D. 100%

161. Green belts contribute _____ of their time to improvement projects while delivering their normal job functions.

- A. 20%
- B. 40%
- C. 80%
- D. 100%

162. . Laboratories for Drinking Water Analysis Classification A:

- A. Microbiological
- B. Physico-chemical
- C. Microbiological-physico-chemical
- D. NOTA

163. Trains laboratory personnel, analysts and the drinking water sampler:

- A. RITM
- B. San Lazaro Hospital
- C. East Avenue Medical Center
- D. Lung Center of the Philippines

164. Highest in hierarchy of controls:

- A. Elimination
- B. Engineering
- C. Administrative
- D. Substitution

165. National Reference Laboratory for Environmental and Occupational Health; Toxicology and Micronutrient Assay:

- A. RITM
- B. San Lazaro Hospital
- C. East Avenue Medical Center
- D. Lung Center of the Philippines

166. Which of the following conducts Proficiency Workshops in HIV and Hepatitis Testing for all Medical Technologists?

- A. LCP
- B. NKTi
- C. RITM
- D. SACCL-SH

167. Which of the following conducts EQAS on infectious markers for transfusion transmissible diseases as an input to Quality Assurance of all BLOOD SERVICE FACILITIES (BSFs) performing donor blood testing?

- A. LCP
- B. NKTi
- C. RITM
- D. SACCL-SH

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

1168. RESPECT the decisions (self-determination) of adult who have decision-making capacity. Moral rules or obligations:

- Tell the truth
- Respect the privacy
- Protect confidential information
- Obtain consent for interventions with patients

A. Autonomy

B. Beneficence

C. Non-maleficence

D. Justice

169. This principle holds that there is an obligation not to inflict harm on others. It is closely associated with the maxim primum non nocere. This principle supports the following rules:

- Do not kill
- Do not cause pain or suffering
- Do not incapacitate
- Do not cause offense

A. Autonomy

B. Beneficence

C. Non-maleficence

D. Justice

170. First clinical laboratory in the Philippines:

A. San Lazaro Hospital

B. Manila Public Health Laboratory

C. Research Institute for Tropical Medicine

D. National Reference Laboratory

171. Introduced medical technology practice in the Philippines after World War II:

A. Dr. Pio de Roda

B. Dr. Mariano Icasiano

C. Dr. Prudencia Sta. Ana

D. 26th Medical Laboratory of the 6th US Army

172. Qualification of BOARD EXAMINERS (Board of MT), except:

A. Filipino citizen, good moral character

B. Qualified pathologists or duly RMTs

C. In practice of laboratory medicine or MT for at least 5 years prior to his appointment

D. Not a member of the faculty of any medical technology school for at least 2 years prior to appointment

173. Certificate of registration as Medical Technologist shall not be required for which of the following?

A. Duly registered physicians

B. MT from other countries called in for consultation or as visiting or exchange professors

C. Medical Technologists in the service of the US Armed Forces stationed in the Philippines

D. AOTA

174. In cases where the screening drug-testing laboratory is a division, section, or a unit of a Clinical Laboratory, it shall be headed by:

A. Licensed physician/Medical technologist

B. Pharmacist

C. Chemist/Chemical Engineer

D. AOTA

175. A drug test is valid for_____.

A. Three months

B. Six months

C. One year

D. Two years

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

176. The LICENSE TO OPERATE (LTO) issued to the Clinical Laboratory is valid for:

- A. One year
- B. Two years
- C. Three years
- D. Four years

177. The LICENCE TO OPERATE (LTO) of Blood Services Facilities is valid for a period of __ years.

- A. One year
- B. Two years
- C. Three years
- D. Four years

178. According to the DOH A.O 2006-0024, certificate of accreditation of laboratories for DRINKING WATER ANALYSIS is valid for ____ year(s) and expires on the last day of December.

- A. One year
- B. Two years
- C. Three years
- D. Four years

179. Organ Donation Act of 1991:

- A. RA 1517
- B. RA 4688
- C. RA 7170
- D. RA 9165

180. The process of working with people and resources to accomplish organizational goals:

- A. Authority
- B. Supervision
- C. Management
- D. Leadership

181. What is the most important role of the manager in charge?

- A. Independent decision making
- B. Communication
- C. Informal discussions
- D. None of the above

182. Focus on people and operational delivery of laboratory services:

- A. Laboratory supervisor
- B. Laboratory manager
- C. Laboratory director
- D. Administrator

183. Sentinel event:

- A. Insufficient specimen
- B. Positive blood culture
- C. Wrong medication
- D. Surgery on wrong patient or body part

184. Bayanihan to HEAL AS ONE act:

- A. R.A 11467
- B. R.A 11469
- C. R.A 11459
- D. R.A 11499

185. Bayanihan to RECOVER AS ONE act:

- A. R.A 11494
- B. R.A 11459
- C. R.A 11499
- D. R.A 11467

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

186. R.A 11223:

- A. Universal Health Care Act
- B. Human Trafficking Act of 1995
- C. Science and Technology Act
- D. Universal Water Care Act

187. It refers to the process by which samples of bodily fluid or tissue are collected for research use to improve our understanding of Health and Disease:

- A. Biosafety
- B. Biobanking
- C. Biosecurity
- D. Biology controls

188. Grants the MTB with the authority to hear and determine questions of fact to which legislative policy is to apply and to decide in accordance with the standards laid down by the law itself in enforcing and administering the same law:

- A. Administrative
- B. Quasi-legislative
- C. Quasi-judicial
- D. Executive

189. Every applicant who has satisfactorily passed the required examination for medical technologist shall be issued a certificate of registration (COR) as such: Provided, that no such certificate shall be issued to any successful applicant who has not attained the age of _____.

- A. 20 y/o
- B. 21 y/o
- C. 22 y/o
- D. 23 y/o

190. Consists of educational arrangements such as curricular qualifications and teaching learning requirements that leads to diplomas and qualifications:

- A. Formal learning
- B. Non-formal learning
- C. Informal learning
- D. Professional work experiences

191. Occurs in daily life and is assessed through recognition, validation and accreditation process and can contribute to a qualification:

- A. Formal learning
- B. Non-formal learning
- C. Informal learning
- D. Professional work experiences

192. True about R.A 7719, except:

- A. Approved on May 5, 1994
- B. Repealed RA 1517
- C. Approved by President Ferdinand Marcos Sr.
- D. Phased out all commercial blood bank 2 years after the law's effectivity

193. According to service capability, which Blood Service Facility is responsible for the recruitment, retention and care of voluntary blood donors?

- A. Blood Station
- B. Blood Collection Unit
- C. Blood Bank
- D. Blood Center

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

194. Storage and issuance of whole blood and blood components obtained from a BC:

- A. Blood Station
- B. Blood Collection Unit
- C. Blood Bank
- D. Blood Center

195. An agency attached to DOH that is primarily tasked to ensure the implementation of the country's response to the HIV and AIDS situation:

- A. Philippine Red Cross
- B. Philippine National AIDS Council (PNAC)
- C. Philippine Movement AIDS Council
- D. None of these

196. Newborn Screening Act of 2004:

- A. R.A 9299
- B. R.A 9228
- C. R.A 9288
- D. R.A 9289

197. Most common inborn error of metabolism in the Philippines:

- A. Maple Syrup Urine Disease
- B. Phenylketonuria
- C. Cretinism
- D. G6PD

198. Validity of COA of a screening Drug Test Laboratory:

- A. 6 months
- B. 1 year
- C. 2 year
- D. Indefinite

199. National Reference Laboratory for Drug Test:

- A. EAMC
- B. SLH
- C. LCP
- D. RITM

200. Perform standard methods to detect and estimate bacterial coliform organisms in water sample:

- A. Chemical Analysis Lab
- B. Biological Analysis Lab
- C. Bacteriological Analysis Lab
- D. Radiological Analysis Lab

201. Refers to a list of minimum legally core parameters for drinking water analysis such as total dissolved solids, thermotolerant coliform and chemicals:

- A. Water Analysis Parameters
- B. Control parameters
- C. Bacteriological Parameters
- D. Mandatory Parameters

202. ISO Standard and certification formulated for clinical laboratories:

- A. ISO 15179
- B. ISO 15197
- C. ISO 15189
- D. ISO 15198

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

1203. Which Quality Management error is included in the Pre-examination phase? A. Poor quality of instrument printer

B. Instrument malfunction

C. Interfering substances present

D. Patient misidentification

204. Which Quality Management error is included during the Examination phase?

A. Incorrect storage of specimen

B. Instrument malfunction

C. Poor handwriting

D. Reagent deterioration

205. All of the following are Quality Management errors during the post examination phase, except:

A. Failure to call critical values

B. Inability to identify interfering substance

C. Misinterpretation of QC data

D. Poor handwriting

206. Checking the difference between a patient's laboratory results and consecutive previous results which exceed a predefined limit:

A. Calibration

B. Delta check

C. Queuing theory

D. Procedure protocol

207. Comparison of an instrument measure or reading to a known physical constant.

A. Calibration

B. Delta Check

C. Queuing Theory

D. Procedure Protocol

208. Provides recommendations for the number of staff needed to handle an unpredictable workload.

A. Calibration

B. Delta Check

C. Queuing Theory

D. Procedure Protocol

209. Proper Donning:

A. Gown – Goggles or Face Shield – Mask or Respirator – Gloves

B. Gown – Mask or Respirator – Gloves – Goggles or Face Shield

C. Gown – Mask or Respirator – Goggles or Face Shield – Gloves

D. Gloves – Mask or Respirator – Goggles or Face Shield – Gown

210. Proper Doffing:

A. Gown – Goggles or Face Shield – Mask or Respirator – Gloves

B. Gown – Mask or Respirator – Gloves – Goggles or Face Shield

C. Gloves – Gown – Mask or Respirator – Goggles or Face Shield

D. Gloves – Goggles or Face Shield – Gown- Mask or Respirator

211. In NFPA Diamond, under the Red Diamond what does the number 4 signifies?

A. Above 75 F

B. Below 75 F

C. Below 100 F

D. Above 100 F

212. When fire is first discovered:

A. Alarm - Rescue - Contain - Extinguish /Evacuate

B. Rescue - Alarm - Contain – Extinguish/Evacuate

C. Rescue - Alarm – Contact personnel – Extinguish/Evacuate

D. Rescue - Alarm – Extinguish/Evacuate - Contact personnel

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

213. When operating a fire extinguisher:

- A. Pull the pin - Aim at the base of the fire - Squeeze the handle - Sweep nozzle, up to down
- B. Pull the pin - Aim at the top of the fire - Squeeze the handle - Sweep nozzle, side to side
- C. Pull the pin - Aim at the base of the fire - Squeeze the handle - Sweep nozzle, side to side
- D. Pull the pin - Aim at the base of the fire - Sweep nozzle, side to side - Squeeze the handle

214. When washing hands, rinse hands in a _____ position to prevent recontamination of hands and wrists:

- A. Upward
- B. Downward
- C. Facing the faucet
- D. None of these

215. Sharps and pressurized container:

- A. Black
- B. Green
- C. Orange
- D. Red

216. Refers to the ability of a performance of program to produce the intended or expected results in the field:

- A. Effectiveness
- B. Efficiency
- C. Efficacy
- D. Evaluation

217. Ability to produce results under ideal condition:

- A. Effectiveness
- B. Efficiency
- C. Efficacy
- D. Evaluation

218. Refers to the ability of the program to produce the intended results with a minimum expenditure of time and resources:

- A. Effectiveness
- B. Efficiency
- C. Efficacy
- D. Evaluation

219. Epidemiologist records whether each study participant is exposed or not, and then tracks the participants to see if they develop the disease of interest:

- A. Cross-sectional study
- B. Cohort study
- C. Case control studies
- D. Causation Study

220. Compares those people with the disease (case persons) from those without (control):

- A. Cross-sectional study
- B. Cohort study
- C. Case control studies
- D. Causation Study

221. A sample of persons from a population is enrolled and their exposures and health outcomes are measured simultaneously.

- A. Cross-sectional study
- B. Cohort study
- C. Case control studies
- D. Causation Study

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

222. Pre-analytical Phase:

- A. Cervical cytology/biopsy correlation
- B. Critical value reporting
- C. Turn-around time
- D. Blood culture contamination

223. Post analytical Phase:

- A. Critical value reporting
- B. Accuracy of point-of-care testing
- C. Cervical cytology/biopsy correlation
- D. Patient identification

224. Expression of Dissatisfaction:

- A. Error
- B. Adverse Reaction
- C. Accident
- D. Complaint

225. Formally requires all professional performing regulated professions under PRC to mandatory comply with the CPD requirements:

- A. RA 10912
- B. RA 10913
- C. RA 10914
- D. RA 10915

226. Who is the Father of PAMET?

- a. Crisanto G. Almario
- b. Charlemagne Tamondong
- c. Ronaldo E. Puno
- d. Januario D. Veloso

227. The board Chairman of medical technology

- a. Medical Technologist
- b. Secretary of health
- c. CHED chairman
- d. Pathologist

228. To be a board member, one should be in the practice of laboratory medicine or medical technology for at least _____ prior to his appointment

- a. 2 years
- b. 5 years
- c. 7 years
- d. 10 years

229. Removal of Board Members

- a. neglect of duty
- b. incompetency
- c. malpractice
- d. AOTA

230. Which among the ff. subjects is a minor subject in the board exam?

- a. Clinical microscopy
- b. Clinical chemistry
- c. Microbiology
- d. Hematology

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

231. An RMT reprimanded for fraudulent reports should surrender his Certificate of registration, after the decision has been final, within _____ a.
- a. a day
 - b. 15 days
 - c. 30 days
 - d. 3 days
232. All laboratory must secure a license from DOH
- a. Every 6 months
 - b. Every 2 years
 - c. Annually
 - d. Every 3 years
233. Anyone who will transfer his laboratory must inform the bureau of research and laboratory
- a. 15 days after the transfer
 - b. 15 days before the transfer
 - c. Within 15 days before the transfer
 - d. At the end of the year before renewing the license
234. According to AO. No.2007-0027, a lab offering a molecular pathology functions as
- a. Clinical pathology
 - b. Anatomic pathology
 - c. Forensic pathology
 - d. Government/reference lab owned
235. A laboratory that offers gram staining is categorized as
- a. primary
 - b. secondary
 - c. tertiary
 - d. Limited service capability
236. An individual included in the list of qualified voluntary blood donors , who is ready to donate blood when needed in his/her community
- a. Walking blood donor
 - b. Voluntary blood donor
 - c. Donor
 - d. Recipient
237. Providing an individual information on the biomedical aspects of HIV/AIDS and emotional support to any psychological implications
- a. Pre test counseling
 - b. Post test counseling
 - c. Anonymous testing
 - d. Prophylaxis
238. A parent or guardian can refuse newborn screening on ground of
- a. Freedom to reject any health service
 - b. Anyone can reject health service as long as he is not a minor
 - c. Severe illness of a newborn
 - d. religious belief
239. An individual can be a PRC chairperson except
- a. he is at least 40 yrs old
 - b. familiar with the principles and methods of professional regulation
 - c. at least 5 years of executive management
 - d. Attended leadership seminar conducted by Civil service commission

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

240. Employees tend to act in the way they are expected to act by their leaders

- a. Theory Z
- b. Pygmalion effect
- c. fishbone
- d. pareto

241. What is due depends on what has been given/received

- a. Utilitarian
- b. Equity
- c. Equality
- d. Egalitarian

242. A patient complained to the chief medical technologist that she has a bruise on her left arm because of a brutal venipuncture. What should the chief medical technologist do?

- A. Know the phlebotomist's name from the nurse in charge
- B. Give immediate sanction to the phlebotomist
- C. Just listen to the patient then do nothing
- D. Ask phlebotomy supervisor to investigate the incident

243. What is the best thing to do if an acidic reagent spilled on your forearm?

- A. Neutralize with a basic reagent then flush with water
- B. Flush with water for 15 minutes and call a physician
- C. Wash with soap for 10 minutes then flush with water
- D. Wipe with isopropyl alcohol and call the physician

244. Which of the following statements describes the perspective of Theory Y managers?

- A. All workers have initiative.
- B. Manager-worker engagement is needed.
- C. All workers are industrious and diligent.
- D. AOTA

245. Who will ensure that a newborn screening was done?

- a. Chief medtech
- b. Parents/guardian
- c. Practitioner
- d. AOTA

246. The color of death certificate is

- a. blue
- b. white
- c. pink

247. How many lab technician/s is/are supervised by a registered medical technologist?

- a. 4
- b. 3
- c. 2
- d. 1

248. Who among the ff. can have his/her license revoked?

- a. Registered medical technologist
- b. Laboratory technician
- c. Both a and b
- d. RMT – revocation, LT – disqualification from taking the board

249. The deadline for filing of application for the licensure exam should not be later than _____ before the first day of examination

- a. 20 days
- b. 14 days
- c. 1 month
- d. 1 week

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

250. All patient requests and reports shall be kept

- a. at least 1 yr
- b. at most 2yr
- c. indefinite
- d. at least 6 months

251. What should be posted in the laboratory?

- a. License of the RMTs
- b. Proficiency of the physician in charge
- c. Copy of rules and regulations
- d. AOTA

252. A newborn baby in NICU is required to undergo newborn screening not later than

- a. a week
- b. 3 days
- c. 2 days
- d. 24hrs

253. Window period – refers to the period of time usually lasting from 2 weeks to _____ during which an infected individual will test “negative” upon HIV testing

- a. 3 months
- b. 1 yr
- c. 6 months
- d. 2 yrs

254. Certificate of accreditation granted to a water analysis lab expires

- a. Annually
- b. Every 2 years
- c. At the end of every year
- d. Every 3 years

255. Overall Activities conducted by the institution are dedicated toward assuring the quality of the produces and services provided

- a. Quality assurance
- b. Quality control
- c. Continuous Quality
- d. Standardization

256. A system used to monitor the analytical process to detect and prevent errors that would impact on the accuracy and precision of laboratory test results; includes both statistical and nonstatistical parameters

- a. Quality assurance
- b. Quality control
- c. Continuous Quality
- d. Standardization

1. Person who may execute a donation, EXCEPT:

- a. Spouse
- b. Either parent
- c. Donor daughter of legal age
- d. Pathologist

257. Process whereby the clearing agent is completely removed from the tissue and replaced by a medium that will completely fill all the tissue cavities:

- a. Embedding
- b. Blocking
- c. Infiltration
- d. Casting

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

258. When placed in a solution whose refractive index is similar to the refractive index of tissue proteins, the tissue becomes:

- a. Fragile
- b. Hard
- c. Small
- d. Translucent

259. Steps in automation designed to mimic manual techniques include:

- a. Pipetting of specimen
- b. Pipetting of reagents
- c. Measurement of chemical reactions
- d. All the above

260. When using paraffin with a melting point of 55°C to 57°C, the most common temperature for floating sections on a flotation bath is approximately:

- a. 15°C to 20°C
- b. 35°C to 40°C
- c. 45°C to 50°C
- d. 55°C to 60°C

261. Proficiency testing, EXCEPT:

- a. Bacteriology
- b. Urinalysis
- c. HIV testing
- d. Drug testing

262. EA50 is the second counterstain in Pap's smear that stains:

- a. Mature cells
- b. Immature cells
- c. Dead cells
- d. Nucleus

263. Microscopic examination of an H&E stained section reveals marked background staining. This is most likely caused by:

- a. Albumin spread on the slide with a finger
- b. Excess section adhesive on the slide
- c. Sections taken immediately after "rough facing" of block
- d. Flotation bath not cleaned between blocks

264. A clearing agent for use in processing tissues for paraffin embedding must be miscible with the:

- a. Fixative and paraffin
- b. Dehydrant and paraffin
- c. Fixative and dehydrant
- d. Paraffin and water °

265. The process of decalcification is best performed:

- a. Before fixation
- b. After fixation
- c. After impregnation
- d. NOTA

266. Air holes found during trimming:

- a. Incomplete fixation
- b. Incomplete dehydration
- c. Insufficient clearing
- d. Incomplete impregnation

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

267. When liver is cut in the cryostat, the sections obtained are alternately thick and thin, with a distinct "venetian blind" effect. The most probable cause is that the:

- a. Anti-roll plate is adjusted wrong
- b. Block is too cold
- c. Knife is dull
- d. Liver is fatty

268. All of the following are not stains for collagen, EXCEPT:

- a. Warthin-starry
- b. Masson's trichome
- c. Masson-fontana
- d. VonKossa

269. The first symptom of Acute Respiratory Distress Syndrome:

- a. Perspiration
- b. Shortness of breath
- c. Irritable
- d. Trembling of hands

270. Staining methods that include a destaining or differentiation step are referred to as:

- a. Regressive staining
- b. Progressive staining
- c. Background staining
- d. AOTA

271. Secondary change in somatic death important in establishing time of death:

- a. Putrefaction
- b. Algor mortis
- c. Rigor mortis
- d. Livor mortis

272. Which of the following items should NOT be contained within a job advertisement?

- a. Name of organization
- b. Starting salary
- c. Position title
- d. Licensure requirements

273. The last container through which tissue pass through in an automatic tissue processor contains:

- a. Paraffin
- b. Formalin
- c. Xylol
- d. Alcohol

274. Technique to highlight various individual tissue component:

- a. Giemsa staining
- b. H and E staining
- c. Immunohistochemistry
- d. Special staining

275. Panunumpa ng Propesyonal: “Kasihan nawa ako ng_____.”

- a. Diyos
- b. Maykapal
- c. Bathala
- d. Allah :

276. All of the following are blueing agents, EXCEPT:

- a. Saturated lithium carbonate
- b. Sodium chloride
- c. Ammonium hydroxide
- d. Scott’s solution

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

277. The Professional Regulation Commission (PRC) is a three-man commission attached to:

- a. CHED
- b. PHILHEALTH
- c. Office of the President
- d. DOLE

278. The dry celloidin embedding method is employed chiefly for the:

- a. Bones and teeth
- b. Whole organs
- c. Large brain blocks
- d. Eyes

279. Which of the following is the cellular infiltrate in acute inflammation:

- a. Neutrophils
- b. Plasma cells
- c. Macrophage
- d. Lymphocytes

280. What specimens may be appropriate for IHC?

- a. Formalin fixed tissues
- b. Frozen sections
- c. Acetone fixed tissues
- d. All of these

281. All of the following are under post examination phase, EXCEPT:

- a. Out-of-control quality control results
- b. Verbal reporting of results
- c. LIS incompatibility error
- d. Confusion about reference ranges

282. Minimum personnel in drug test screening laboratory:

- a. Head of the laboratory, authorized collector
- b. Head of the laboratory, authorized collector, analyst
- c. Authorized collector, analyst
- d. Head of the laboratory, analyst

283. All of the following are slow acting clearing agents hence not suited for urgent biopsies EXCEPT:

- a. Benzene
- b. Clove oil
- c. Cedarwood oil
- d. Methyl benzoate

284. Which of the following conducts Proficiency Workshops in HIV and Hepatitis Testing for all medical technologists?

- a. LCP
- b. NKTI
- c. RITM
- d. SACCL-SLH

285. In papanicolaou staining, metaplastic cells will color:

- a. Both green and pink at once
- b. Yellow
- c. Crisp blue to black
- d. Orange to pink

286. All of the following are health indicators, EXCEPT:

- a. Life expectancy
- b. Mortality
- c. Incidence or prevalence
- d. Injury rate

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

287. DOH approved form used to document the collection, transport, security, and test results of the specimen for drug test:

- a. Turnaround time
- b. Chain of infection
- c. Custody and control form
- d. Request form

288. Method for heat-induced epitope retrieval:

- a. Steaming
- b. Water bath
- c. Autoclaves
- d. All of the above

289. Temperature used for MTB fixation:

- a. 40°C
- b. 0-4°C
- c. 60°C
- d. 100°C

290. Staining result in the routine hematoxylin and eosin method:

- a. Nuclei pink, cytoplasm blue to blue-black
- b. Nuclei blue to blue-black, cytoplasm pink
- c. Nuclei and cytoplasm pink
- d. Nuclei and cytoplasm blue-black

291. If the cell or tissue antigen of interest is detected by directly binding a labeled primary antibody specific for that antigen:

- a. Direct immunohistochemistry
- b. Indirect immunohistochemistry
- c. Both of these
- d. None of these

292. Manual records can be corrected as long as:

- a. The original entry is neither obliterated nor deleted
- b. The person making the correction dates and initials the change
- c. The item to be corrected is crossed off with a single line
- d. All of the above

293. Section 21 of RA 5527:

- a. Qualification for Examination
- b. Oath-taking
- c. Issuance of Certificate of Registration
- d. Penal Provisions

294. Autopsy technique that involves “en bloc” removal of organs:

- a. R.virchow
- b. A. Ghon
- c. C.Rokitansky
- d. M. letulle

295. Microtome suitable for fatty tissues:

- a. Rotary
- b. Rocking
- c. Cold Microtome
- d. Sliding

296. Which of the following will require tissue softening prior to sectioning?

- a. Tuberculous organs
- b. Bones
- c. Teeth
- d. Nails

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

297. Removal of clearing agent as well as filling up tissue cavities and spaces may be accomplished using which of the following agents:

- a. Amyl acetate
- b. Methyl salicylate
- c. Paraffin wax
- d. Terpeneol

298. pH level of phosphate-buffered formalin:

- a. pH4
- b. pH6
- c. pH7
- d. pH5

299. Which of the following is NOT a professional course?

- a. Hematology
- b. Understanding the self
- c. Bacteriology
- d. CPH

300. The routine stain for cytology is:

- a. Gram's stain
- b. Pap's stain
- c. Wright's stain
- d. H&Estain

301. Harris hematoxylin is used on tissue sections to stain:

- a. Fat
- b. Glycogen
- c. Nuclei
- d. Cytoplasm

302. Considered to be an expression of dissatisfaction, which requires a response:

- a. Reaction
- b. Adverse reaction
- c. Complaint
- d. Discrepancy

303. Trains laboratory personnel, analysts and the drinking water sampler: a. RITM

- b. SanLazaro Hospital
- c. East Avenue Medical Center
- d. Lung Center of the Philippines

304. For good fixation it is recommended that the tissue be no larger than:

- a. 2cmsquare and 1-2 mm thick
- b. 2cmsquare and 3-4 mm thick
- c. 3cmsquare and 1-2 mm thick
- d. 3cmsquare and 3-4 mm thick

305. All are physical preservation of tissue, EXCEPT:

- a. Heat
- b. Vapor
- c. Microwave
- d. Freeze drying

306. Which of the following causes the characteristic foul smell in cadavers due to GIT decomposition?

- a. Cadaverine
- b. Putrescine
- c. Skatole
- d. Indole

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

307. Laboratory documents, EXCEPT:

- a. Quality control information
- b. Quality manual
- c. Standard operating procedures
- d. Reference materials

308. Ratio of tissue to fixative:

- a. 10:1
- b. 1:10
- c. 20:1
- d. 1:20

309. All are fixatives used for electron microscopy, EXCEPT:

- a. Paraformaldehyde
- b. Glutaraldehyde
- c. Heidenhain's Susa
- d. Osmium tetroxide

310. The chromogen used in partnership with HRP is:

- a. Para dimethylaminobenzaldehyde
- b. Diaminobenzidine
- c. P-dimethyl-l-naphthylamine
- d. NOTA

311. The routine stain for surgical tissue section is:

- a. Gram's stain
- b. Pap's stain
- c. Wright's stain
- d. H&Estain

312. Clearing agent recommended for CNS and Cytologic studies

- a. Chloroform
- b. Cedarwood oil
- c. Xylene
- d. Aniline oil

313. Autopsy performed in cases of violent, suspicious or sudden deaths, deaths without medical assistance or during surgical procedure:

- a. Clinical or pathological
- b. Medico-legal or forensic
- c. Anatomical or academic
- d. Virtual or medical imaging

314. Government agency responsible for the regulation and licensing of nuclear facilities and radioactive materials:

- a. DOLE
- b. DOST
- c. DOH
- d. PNRI

315. The temperature of the oven used to maintain a supply of melted paraffin for embedding tissue should be about:

- a. 43°C
- b. 43°F
- c. 60°C
- d. 60°F

316. The antibody class most frequently used in immunofluorescent and immunoenzyme staining is:

- a. IgM
- b. IgE
- c. IgG
- d. IgA

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

317. Formalin fixes tissue by:

- a. Causing a loss of color
- b. Forming cross-links
- c. Forming formic acid
- d. Facilitating numerous staining techniques

318. Lowest in hierarchy of controls:

- a. Elimination
- b. Engineering
- c. PPE
- d. Substitution

319. One of its functions is to test units of blood for TTIs:

- a. Blood bank
- b. Blood collection unit
- c. Blood station
- d. NOTA

320. Generally, an increase in the temperature of the fixative solution:

- a. Decreases the tissue autolysis
- b. Decreases the fixative penetration
- c. Increases the speed of fixation
- d. Increases the volume of fixative needed

321. Which of the following is added to prevent growth of molds in Mayer's egg albumin?

- a. Glycerine
- b. Phenol
- c. Thymol crystals
- d. Sugar

322. All laboratory reports on various examinations of specimens shall bear:

- a. Name of the RMT
- b. PRC registration number of the RMT
- c. Signature of the RMT
- d. AOTA

323. Which of the following fixatives is recommended for tumor skin biopsies?

- a. Zenker's fluid
- b. Heidenhain's Susa
- c. Carnoy's
- d. Acetone

324. The cryostat is an apparatus used in fresh tissue microtomy. It consists of a microtome, kept inside a cold chamber which has been maintained at a temperature of:

- a. 20deg C
- b. -20 deg C
- c. 4degC
- d. -4 deg C

325. Water microbiology analyst, EXCEPT:

- a. Registered medical technologist
- b. Certified microbiologist
- c. Registered food technologist
- d. Registered pharmacist

326. Key attributes for good documentation, except:

- a. Accurate
- b. Attributable
- c. Legible
- d. Always computer-generated

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

327. This technique entails the use of specific dyes, which differentiate particular substances by staining them with a color that is different from that of the stain itself:

- a. Orthochromatic staining
- b. Counterstaining
- c. Metachromatic staining
- d. Vital staining

328. To prevent the formation of formalin pigment in tissues, formalin should be:

- a. Heated
- b. Cooled
- c. Buffered
- d. Acidified

329. Most commonly used fixative for cytology:

- a. Glutaraldehyde
- b. Osmium Tetroxide
- c. 95%ETOH(Ethanol)
- d. Paraformaldehyde

330. Ensuring adequate rest breaks in the laboratory is under what type in the hierarchy of controls?

- a. Elimination
- b. Engineering
- c. Administrative
- d. Substitution

331. What is the main purpose of frozen section:

- a. For rapid results while the patient is in the operating room
- b. For more accurate results
- c. To avoid tissue distortion
- d. All of these

332. All post-mortem procedures require adherence to:

- a. Isolation techniques
- b. Isolation precautions
- c. Standard precautions
- d. Noneof these

333. Tissues are subjected to a series of different reagents in a closed processor by:

- a. Tissue transfer
- b. Fluid transfer
- c. Heat transfer
- d. Linear transport

334. Specimen retention for paraffin blocks/slides:

- a. 10years
- b. 7years
- c. 5years
- d. 3years

335. Which of the following components of the Papanicolau stain stains nothing?

- a. Hematoxylin
- b. Bismarck Brown Y
- c. OG-6
- d. Eosin Azure

336. Improvement methodology referring to non-value-added activities considered as waste:

- a. Scrum
- b. Agile
- c. Lean
- d. Six Sigma

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

337. What is the most important role of the manager in charge?

- a. Independent decision making
- b. Communication
- c. Informal discussions
- d. None of the above

338. The DOH-LTO is:

- a. Transferable
- b. Non-transferable
- c. Transferable, depending on the situation
- d. Transferable, if given permission

339. What is the most commonly used tissue fixative in routine Histopathology laboratory?

- a. 95% ethanol
- b. 95% ethanol and ether
- c. 10% BNF
- d. Osmium tetroxide

340. Alcohol is removed in toluene or in other agents in which both alcohol and paraffin are miscible. Which step in tissue processing is described?

- A. Dehydration
- B. Clearing
- C. Fixation
- D. Embedding

341. ALL are Practice of Medical Technologist EXCEPT:

- A. Doing clinical research studies
- B. Reading of blood smear
- C. Reading of tissues and interpretation
- D. Preparation and standardization of reagents

342. Which of the following is NOT a practice of Medical Technologists?

- A. Blood typing and cross-matching
- B. tissue processing
- C. Autopsy
- D. Preparation and standardization of reagents

343. Under the Medical Technology Act, who is the chairman of the council of medical technology?

- A. Director of Bureau of Research and Laboratories of DOH
- B. Secretary of Education of Director of Private Education
- C. Board of Medical Technology
- D. A representative of the deans or heads of the Private schools of medical technology

344. ALL are functions of the council of medical technology, EXCEPT:

- A. To recommend minimum required curriculum
- B. To determine and prescribe the number of students, account the student-instructor ratio, and the availability of facilities for instruction
- C. To administer, implement and enforce the regulatory policies of the national government with respect to the regulation and licensing of the medical technologists
- D. To approve medical technology school meeting the requirements and recommended closure to those who found to be substandard

345. Under the Section 6 of Republic Act 5527, the minimum required course for medical technology shall be at least:

- A. 4 years, including a 12-months satisfactory internship in an accredited clinical laboratory
- B. 4 years, including a 6-months satisfactory internship in an accredited clinical laboratory
- C. Both statements are applicable
- D. NOTA

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

346. Which of the following is NOT a professional subject in medical technology?

- A. Hematology
- B. Analysis of Urine and other Body Fluids
- C. Organic Chemistry
- D. Molecular Biology and Diagnostics

347. Which of the following is a core subject in medical technology?

- A. Health Information System for Medical Laboratory Science
- B. Clinical Chemistry 1 and 2
- C. Laboratory Management
- D. Principles of Medical Laboratory Science Practice 1

348. How many hours are required for the Histopathologic Techniques and Cytology internship rotation?

- A. 300
- B. 200
- C. 250
- D. 100

349. In the new curriculum, what is the target total number of exposure or contact hours for medical technology interns during their internship?

- A. 1000
- B. 1500
- C. 1664
- D. 6969

350. What is the composition of the Board of Medical Technology?

- A. Two pathologists and two medical technologists
- B. One pathologist and two medical technologists
- C. One pathologist, one medical technologist and one lawyer
- D. One pathologist, one medical technologist, and one medical laboratory technician

351. Dr. Tom Jerry, a prominent cardiologist in the United States from 1983-2003 wanted to be a Filipino. In 2007, he became a naturalized citizen of our country. Can he sit as the chairman of our Board of Medical Technology?

- A. No, naturalized citizens are not allowed to handle any Board positions here in the Philippines
- B. Yes, it is stated that naturalized citizens can also sit as a Board examiner of MT
- C. No, because he is not a pathologist but he can sit as a member of the Board provided that his pre-medicine course is medical technology
- D. No, he cannot be a chairman nor be a member because he is not a pathologist and lacks the number of years of laboratory experience

352. Who is the executive officer of the Board responsible to the conduct of licensure examination for Medical Technologist?

- A. Secretary of the Board of Examiners
- B. PAMET President
- C. Commissioner of Civil Service
- D. President of the Philippines

353. The following are functions of the Board of Medical Technology, EXCEPT:

- A. Administer oaths
- B. Issue, suspend and revoke certificates of registration for the practice of medical technology and medical laboratory technician
- C. Investigate violations to the rules and regulations violated by a medical technologist
- D. Monitoring of License to Operate (LTO) issued to all clinical laboratories

354. In accordance to Medical Technology Law, who shall approve schools of medical technology?

- A. DOH
- B. PAMET
- C. FDA
- D. Department of Education

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

355. When is the deadline for filing an application with the PRC to take the medical technologist licensure examination?

- A. 30 days after the date of examination
- B. 2 months prior to the date of examination
- C. 3 months prior to the date of examination
- D. 1 month prior to the date of examination

356. On the day of the actual examination, what is the MOST IMPORTANT thing or document to bring?

- A. OR
- B. Pencil
- C. NOA
- D. Calculator

357. In order to pass the medical technologist licensure examination, a candidate must obtain:

- A. An average of seventy-five percent
- B. An average of seventy-five percent in the three major subjects
- C. An average of seventy-five but failed in sixty percent of the subject
- D. An average of seventy-five percent in the written test with no rating below fifty percent in any major subject

358. Which among the choices below is NOT a major subject in the medical technologist licensure examination?

- A. Clinical Chemistry
- B. Clinical Microscopy
- C. Hematology
- D. Blood Banking and Serology

359. For Jericho to pass the next board examination, what subject/s must be improved?

- A. Clinical Chemistry
- B. Microbiology and Parasitology
- C. Clinical Microscopy
- D. Microbiology and Parasitology and Histopathologic Techniques, MT Laws

360. A medical laboratory technician to be registered must have obtained a grade within _____ range in the Medical Technologist Licensure examination.

- A. 65.0% - 74.50%
- B. 60.0% - 74.90%
- C. 70.00% - 74.90%
- D. 68.00% - 74.90%

361. All successful examinees shall be required to take their oath:

- A. Before the President of the Philippines
- B. Before the President of PAMET
- C. Before any judge
- D. Before the Board of Examiners or before any person authorized to administration oaths

362. Kath is a BS Medical Technology graduate, passed the licensure examination last March 26, 2024. Her birthday was March 25, 2003. Will she be able to avail a PRC ID if she wishes to?

- A. Yes, because she was already 21 years old and makes her qualified to be issued a license
- B. Yes, since all passers regardless of age are eligible to claim their licenses
- C. No, because there must be a three-month gap prior to the issuance of ID
- D. No, because she must take the board examination first and wait for the results

363. What is the legal age for issuance of certificate of registration (COR)?

- A. 18 years old
- B. 21 years old
- C. 25 years old
- D. Any age as long as you passed the board examination

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

364. The certificate of Registration of Medical Technologist must be:

- A. Displayed at the place of work
- B. Displayed at her residence
- C. Displayed at the Medical Director's Office
- D. AOTA

365. Who will sign the certificate of registration to be issued to the Medical Technologists?

- A. Members of the board and PRC President
- B. Members of the Council and PRC Commissioner
- C. PRC Commissioner and Board Members
- D. Board Members and PAMET President

366. How many years is the PRC ID valid for?

- A. 2
- B. 3
- C. 4
- D. 5

367. The Board shall refuse to issue a Certificate of Registration to:

- A. Any person convicted by a court
- B. Any person with unsound mind or guilty of immoral conduct
- C. Both of the above
- D. None of the above

368. No penalty of revocation shall be imposed on a medical technologist unless there is:

- A. At least one vote from any member of the Board of Medical Technology
- B. A vote from the Chairman and one member of the Board of Medical Technology
- C. A majority vote of all three members of the Board of Medical Technology
- D. A unanimous vote of all three members of the Board of Medical Technology

369. Administrative investigations shall be conducted by _____.

- A. At least one member of the Board
- B. Three members of the Board
- C. At least one member of the Board with one legal officer
- D. At least two member of the Board with one legal officer

370. All of the following information regarding the registered medical technologist is included in the Roster, EXCEPT:

- A. Name
- B. Address
- C. Citizenship
- D. Date of examination

371. The penal provision is applicable to all of the following cases, EXCEPT:

- A. A medical technologist who shall be knowingly make a fraudulent laboratory report
- B. A medical technologist who refuses or fails to display his/her certificate of registration after due warning from the Board
- C. A person who shall use revoked or suspended certificate of registration
- D. A medical laboratory technician who practices medical technology under the guidance of a medical technologist

372. With the proposed amendment of RA 5527, what additional licensure examination is expected?

- A. HIV Proficiency
- B. Phlebotomy certification
- C. Drug Testing
- D. Proficient testing for STDs

373. The clinical laboratory law required that:

- A. The clinical laboratory is headed by the medical technologist
- B. The clinical laboratory is headed by a pathologist
- C. The clinical laboratory has a pathologist, medical technologist, and a medical laboratory technician
- D. The pathology owns the clinical laboratory

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

374. In areas where pathologists are not available, a _____ with a _____ training on clinical laboratory on clinical laboratory medicine, quality control and laboratory management, may take over the management.

- A. Licensed physician, 6 months
- B. Licensed physician, 1 year
- C. Licensed physician 3 months
- D. Licensed physician, 5 months

375. In reporting, all laboratory results on various examinations of specimens shall bear the name of:

- A. Registered medical technologist, section head
- B. Registered medical technologist, pathologist
- C. Registered medical technologist, senior medical technologist
- D. Laboratory technician, registered medical technologist

376. What should be first secured by the owner from the Department of Health prior to submission of an application for a petition to operate? A. Mayor's permit

- B. BIR permit
- C. License to Operate
- D. Permit to construct and design

377. Which of the following is allowed to issue the certificates of CrCL?

- A. DOLE
- B. Office of the President
- C. DOH through HFSRB
- D. NRL-SLH/SACCL

378. When can a clinical laboratory operates?

- A. When there is a proper permit from the municipal office
- B. When there is proper license and valid permit from the office of the supreme court
- C. When there is a proper license and permit from the hospital administrator
- D. When there is a proper and valid license from the DOH thru HFSRB

379. All clinical laboratories:

- A. Are entitled to choose whether to participate or not in EQAP given by the designated NRL
- B. Shall participate in an EQAP given by the designated NRL
- C. No need of participating in such activities
- D. Can participate provided they only choose a specific NRL to be joined to

380. Under the new rules and regulations governing the regulation of clinical laboratories, to which category does Pap smear belong?

- A. Primary
- B. Secondary
- C. Tertiary
- D. Secondary and Tertiary

381. HIV/AIDS patient:

- A. Screening test +
- B. Confirmatory test +
- C. Both
- D. NOTA

382. Who shall ensure the implementation of the country's response to the HIV and AIDS situation?

- A. DOH through HFSRB
- B. DOLE
- C. PRC
- D. DOH through PNAC

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

383. Trisha is a thirteen-year-old pregnant teen mother who is hesitant about getting an HIV test because she's worried about the potential stigma and discrimination associated with HIV/AIDS. What should Trisha do?

- A. Proceed with the test because it is needed for her health and the health of her unborn child
- B. Refuse the HIV test without providing any reason or seeking clarification from her OB-GYNE
- C. Defer the testing and perform it after 2-6 weeks
- D. Discuss her concerns with her OB-GYNE and ask about confidentiality measures and support options before making a decision

384. Compulsory HIV testing shall be applied in which of the following instances?

- A. Filipinos migrating abroad
- B. An individual applying for a driver's license
- C. Members of the arm forces of the Philippines
- D. When resolving a Family Code dispute

385. What is the NEWEST HIV confirmatory test in the Philippines?

- A. Western Blot
- B. rHIVda
- C. GC-MS
- D. PCR

386. A blood unit tested positive for HIV. To which reference laboratory should this blood unit be sent?

- A. SACCL
- B. RITM
- C. NKTI
- D. EAMC

387. NRL for CBC and Platelet counting:

- A. LCP
- B. NKTI
- C. PHC
- D. MakatiMed

388. Reference laboratory for toxic substances:

- A. EAMC
- B. Asian Hospital and Medical Center
- C. St. Luke's Medical Center
- D. SLH

389. Which of the following is allowed to issue an official confirmatory result based on rHIVda algorithm?

- A. Any public or private hospitals
- B. Molecular laboratories
- C. CrCL
- D. All anatomic pathology laboratories

390. The CrCL certificate is a pre-requisite for the issuance of LTO, which is valid for how many year/s?

- A. 1
- B. 2
- C. 3
- D. 4

391. What is required to any medical technologist who will perform rHIVda?

- A. PRC ID
- B. Certificate of CrCL
- C. COR
- D. HIV proficiency training

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

392. In CrCL, what is the minimum number of samples per eight hours can one medical technologist manually perform?

- A. 20
- B. 25
- C. 35
- D. 50

393. Who implements the annual NEQAS of CrCLs?

- A. NRL-SLH/SACCL
- B. DOLE
- C. Office of the President
- D. DOH through HFSRB

394. NEQAS certificates of CrCLs are valid for how many year/s?

- A. 1
- B. 2
- C. 3
- D. 4

395. Interpret HIV result: T1 + T2 + T3 +

- A. HIV POSITIVE
- B. INVALID
- C. HIV NEGATIVE
- D. HIV INCONCLUSIVE

396. Interpret HIV result: FIRST TEST: T1 - SECOND TEST: T1 -

- A. HIV POSITIVE
- B. INVALID
- C. HIV NEGATIVE
- D. HIV INCONCLUSIVE

397. Interpret HIV result: T0 + T1 -

- A. HIV POSITIVE
- B. INVALID
- C. HIV NEGATIVE
- D. HIV INCONCLUSIVE

398. Interpret HIV result: T1 + T2 -

- A. HIV POSITIVE
- B. INVALID
- C. HIV NEGATIVE
- D. HIV INCONCLUSIVE

399. Interpret HIV result: T1 + T2 + T3 -

- A. HIV POSITIVE
- B. INVALID
- C. HIV NEGATIVE
- D. HIV INCONCLUSIVE

400. ALL ARE NOT TRUE of NEQAS for HIV, EXCEPT:

- A. All clinical laboratories should participate
- B. Well characterized sera in proficiency panels
- C. Done twice a year
- D. Done in RITM

401. What refers to the procedures to account for each drug testing specimen by tracking its handling and storage from collection until its disposal?

- A. Chain of custody
- B. Chain of infection
- C. Supervision
- D. Client recording

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

402. What is a rapid test performed to establish potential/presumptive positive result?

- A. Confirmatory
- B. Initial test
- C. Screening
- D. Final test

403. What is an analytical test using a device, tool or equipment with a different chemical or physical principle that is more specific which will validate and confirm the result of the screening test?

- A. Confirmatory
- B. Initial test
- C. Screening
- D. Final test

404. Who license and accredit drug-testing laboratories to assure the quality, competence and integrity in the conduct of drug testing?

- A. PDEA
- B. EAMC
- C. DOH through HFSRB
- D. DDB

405. What is the National Reference Laboratory (NRL) for Toxicology and Micronutrient Assay?

- A. SLH
- B. EAMC
- C. LCP
- D. NKTl

406. Mandatory drug testing, EXCEPT:

- A. Applicants for driver's license
- B. Applicants for firearm's license
- C. Officers and employees of public and private office whether domestic or overseas
- D. Officers and members of the military, police, and law enforcers

407. For the physical plant of a drug testing laboratory, the SCREENING laboratory must have a work area of _____:

- A. 5 sq. m.
- B. 10 sq. m.
- C. 15 sq. m.
- D. 20 sq. m.

408. For the physical plant of a drug testing laboratory, the CONFIRMATORY laboratory must have a work area of _____:

- A. 15 sq. m.
- B. 20 sq. m.
- C. 25 sq. m.
- D. 30 sq. m.

409. All can be an analyst in drug testing laboratory, EXCEPT:

- A. Chemist
- B. Medical Technologist
- C. Nurse
- D. Pharmacist

410. What is the minimum requirement of laboratory personnel for screening drug laboratory?

- A. Analyst, head pathologist, authorized specimen collector
- B. Analyst, head pathologist
- C. Analyst, authorized specimen collector
- D. Head pathologist, authorized specimen collector

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

411. ASC in drug testing laboratory:

- A. Must be at least high school graduate
- B. Must have undergone appropriate training
- C. Verifies the identity of the client/donor
- D. AOTA

412. The certificate of accreditation for SCREENING drug testing laboratories is valid for how many year/s?

- A. 1
- B. 2
- C. 3
- D. 4

413. The certificate of accreditation for CONFIRMATORY drug testing laboratories is valid for how many year/s?

- A. 1
- B. 2
- C. 3
- D. 4

414. What form is used to document the security of the specimen and all aliquots of the specimen during testing and storage?

- A. COC document
- B. CCF
- C. MFR
- D. Drug Testing Consent Form

415. What is the approved form used to document the collection, transport, security, and test results of the specimen?

- A. COC document
- B. CCF
- C. MFR
- D. Drug Testing Consent Form

416. How many copies of CCF should a client or donor needs to accomplish prior to drug testing?

- A. 2
- B. 3
- C. 4
- D. 5

417. Which of the following form shall be used to record and document specimen that had been rejected or cancelled that includes reason and corrective measures done?

- A. COC document
- B. CCF
- C. MFR
- D. Drug Testing Consent Form

418. Specimens for drug testing, EXCEPT:

- A. Urine
- B. Blood
- C. Scalp hair
- D. Sputum

419. What is the required volume of urine sample intended for drug testing?

- A. 60 mL in a single container
- B. 50 mL in a split specimen
- C. 5 mL
- D. 30 mL in a single container

420. What is the minimum quantity of blood sample intended for drug testing?

- A. 60 mL in a single container
- B. 50 mL in a split specimen
- C. 5 mL
- D. 30 mL in a single container

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

421. Standard panel drug test, EXCEPT:

- A. THC
- B. Opiates
- C. Cocaine
- D. Acetone

422 . Methylendioxyamphetamine (MDMA) is commonly known as _____:

- A. Shabu
- B. Marijuana
- C. Ecstasy
- D. Opium

423. Cannabis: Marijuana; Poppy:

- A. Opium
- B. Shabu
- C. Ecstasy
- D. Meth

424. What method of collection involves collection of specimen wherein it is entirely placed in a single 60-mL bottle?

- A. Single
- B. Double
- C. Split
- D. Midstream clean catch

425. What method of collection involves collection of specimen wherein specimen is collected at same time but placed in 2 separate containers at least 30 mL each?

- A. Single
- B. Double
- C. Split
- D. Midstream clean catch

426. What details are typically included on the FRONT label when labeling urine specimen bottles for drug testing?

- A. Name of donor
- B. Laboratory Accession Number, Date and time of specimen collection
- C. Date and time of specimen collection, Donor's signature and ASC signature
- D. Name of donor, Laboratory Accession Number, Date and time of specimen collection

427. What details are typically included on the BACK label when labeling urine specimen bottles for drug testing?

- A. Name of donor
- B. Laboratory Accession Number, Date and time of specimen collection
- C. Date and time of specimen collection, Donor's signature and ASC signature
- D. Name of donor, Laboratory Accession Number, Date and time of specimen collection

428. What details are typically included on the BOTTLE SEALING label when labeling urine specimen bottles for drug testing?

- A. Name of donor
- B. Laboratory Accession Number, Date and time of specimen collection
- C. Date and time of specimen collection, Donor's signature and ASC signature
- D. Name of donor, Laboratory Accession Number, Date and time of specimen collection

429. The following persons are NOT authorized to collect specimen, EXCEPT:

- A. Employer of the client/donor
- B. ASC
- C. Complainant
- D. Investigator at the crime scene

430. Conditions when unobserved specimen collection is ALLOWED, EXCEPT:

- A. Involved in crime scene
- B. Physically unable to go
- C. Problem with logistics going to the laboratory
- D. Critically ill

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

431. What tampering is involved when specimen has been derived through switching or replacement of the original sample?

- A. Adulterated
- B. Diluted
- C. Substituted
- D. Contaminated

432. What tampering is involved when there is a presence of substance that is not normal constituent for that type of specimen?

- A. Adulterated
- B. Diluted
- C. Substituted
- D. Contaminated

433. What tampering is involved when specimen with less than normal physiological constituents?

- A. Adulterated
- B. Diluted
- C. Substituted
- D. Contaminated

434. Up to this day, this method is considered to be the gold standard method for drug testing:

- A. Rapid immunoassay methods
- B. GC-MS
- C. TLC
- D. HPLC

435. Interpret Drug Test result: CONTROL ZONE – (+) Band TEST ZONE – (-) Band

- A. POSITIVE
- B. NEGATIVE
- C. REACTIVE
- D. INVALID

436. Interpret Drug Test result: CONTROL ZONE – (+) Band TEST ZONE – (+) Band

- A. POSITIVE
- B. NEGATIVE
- C. REACTIVE
- D. INVALID

437. How long can a marijuana be detected in a urine sample?

- A. 2 to 3 days
- B. 8 days to 3 weeks
- C. 2 days to 3 weeks
- D. 7 days

438. How long can a shabu be detected in a urine sample?

- A. 2 to 3 days
- B. 8 days to 3 weeks
- C. 2 days to 3 weeks
- D. 7 days

439. How long can a cocaine be detected in a urine sample?

- A. 2 to 3 days
- B. 8 days to 3 weeks
- C. 2 days to 3 weeks
- D. 7 days

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

440. ALL are documentary requirements for positive screened drug test results for confirmatory testing, EXCEPT:

- A. Request letter for confirmation
- B. Birth certificate of client or donor
- C. CCF-D
- D. Initial laboratory result 300

441. ALL are markings in the resealed bottle of a positive screened drug test results for confirmatory testing, EXCEPT:

- A. Signature of ASC
- B. Signature of Analyst
- C. Signature of HOL
- D. Signature of Client/Donor

442. Urine samples for drug testing shall have a corresponding laboratory result issued within how many day/s?

- A. 1
- B. 3
- C. 7
- D. 15

443. Who should bear signatures on the screening drug test results?

- A. ASC, analyst
- B. Analyst, ASC, and Head of the laboratory
- C. Analyst, Head of the laboratory
- D. Analyst, Chief Chemist and Head of the Laboratory

444. Who should bear signatures on the screening drug test results?

- A. ASC, analyst
- B. Analyst, ASC, and Head of the laboratory
- C. Analyst, Head of the laboratory
- D. Analyst, Chief Chemist and Head of the Laboratory

445. Who shall be the ONLY authorize laboratory to release final drug testing results?

- A. NRL
- B. Confirmatory laboratory
- C. Screening Laboratory
- D. PDEA

446. GLP:

- A. Gas-Liquid Partitioning
- B. Government Laboratory Protocol
- C. Global Leadership Program
- D. Good Laboratory Practice

447. Drug test results is valid for how many year/s?

- A. 1
- B. 2
- C. 3
- D. 4

448. Confirmatory drug testing results is valid for how many year/s?

- A. 1
- B. 2
- C. 3
- D. 4

449. Newborn screening is performed:

- A. After 24 hours of life but not later than 3 days
- B. By 7 days of age in cases of newborns in intensive care
- C. With consent from the parents
- D. AOTA

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

450. Reference laboratory for NBS:

- A. SLH
- B. NKTl
- C. PHC
- D. UP-NIH

451. Who is the chairman of the advisory committee on Newborn Screening?

- A. SOH
- B. Executive Director of the NIH
- C. Undersecretary of the DILG
- D. Executive Director of the Council for the Welfare of Children

452. Interpret the NBS result: NEGATIVE SCREEN

- A. Normal
- B. For confirmation
- C. Invalid
- D. Healthy baby

453. In case of a miscarriage, what important form should be accomplished to report the stillbirth?

- A. Death Report
- B. Death Certificate
- C. Fetal Death Report
- D. Fetal Death Certificate

454. ALL are commonly screened during the Newborn screening procedure EXCEPT:

- A. G6PD deficiency
- B. Phenylketonuria
- C. Galactosemia
- D. Hemoglobinopathies

455. What is the MOST COMMON inborn error of metabolism disorder in the Philippines?

- A. G6PD deficiency
- B. MSUD
- C. Galactosemia
- D. Phenylketonuria

456. What hereditary disorder occurs when a newborn infant is born without the ability to make normal amounts of thyroid hormones?

- A. Congenital hypothyroidism
- B. Congenital adrenal hyperplasia
- C. Galactosemia
- D. Phenylketonuria

457. What group of genetic disorders affect the adrenal glands, a genetic problem results in a lack of one of the enzyme needed to make adrenal hormones?

- A. Congenital hypothyroidism
- B. Congenital adrenal hyperplasia
- C. Galactosemia
- D. Phenylketonuria

458. All are included in the Expanded Newborn Screening test, EXCEPT:

- A. G6PD deficiency
- B. Phenylketonuria
- C. Neonatal diabetes
- D. Congenital hypothyroidism

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

4459. Blood transfusion transmissible infections (TTIs), EXCEPT:

- A. HBV
- B. Dengue
- C. Syphilis
- D. HIV

460. Referred laboratory for positive screened blood units for TTIs:

- A. SLH
- B. RITM
- C. LCP
- D. NKTI

461. Which of the following can perform red cell antibody screening?

- A. Blood bank
- B. Blood center
- C. Blood station
- D. Blood Collection Unit

462. What is the correct order of property of persons who may execute a donation?

- A. Either parent · spouse · son/daughter of legal age · brother/sister of legal age
- B. Spouse · son/daughter of legal age · either parent · brother/sister of legal age
- C. Spouse · either parent · son/daughter of legal age · brother/sister of legal age
- D. Either parent · brother/sister of legal age · spouse · son/daughter of legal age

463. Personal information:

- A. Age
- B. Marital status
- C. Name
- D. School graduated from

464. What is the primary reason for emphasizing data privacy in laboratory settings?

- A. To prevent unauthorized access to lab equipment
- B. To ensure the confidentiality of experimental methods
- C. To minimize the risk of chemical spills
- D. To comply with international standards on laboratory safety

465. The Professional Regulation Commission (PRC) is a three-man commission attached to _____ for administrative supervision and control.

- A. DOLE
- B. Office of the President
- C. PhilHealth
- D. CHED

466. Which of the following is NOT a continuing education activity?

- A. Lectures
- B. Short courses
- C. Scientific conference
- D. Vlogs

467. Which is NOT accredited for CPD units?

- A. Attending PAMET convention
- B. Attending local seminar on laboratory management
- C. Attending RITM seminar
- D. Attending a product presentation

468. How many CPD units is required for the renewal of PRC license of Registered Medical Technologist?

- A. 15
- B. 30
- C. 45
- D. 60

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

469. How many CPD units is required for the renewal of PRC license of Medical Laboratory Technicians?

- A. 15
- B. 30**
- C. 45
- D. 60

470. Major areas of CPD units for Medical Technologist, EXCEPT:

- A. Research and Management**
- B. Standards of Professional Practice
- C. Enhancement of Professional Practice and Technical Competence
- D. Environmental Factors Affecting the Profession

471. What type of water analysis is involved in the detection and estimation bacterial coliform organisms in the water sample?

- A. Bacteriologic**
- B. Physical
- C. Chemical
- D. Biological

472. What type of water analysis measures the aesthetic characteristics of the water sample?

- A. Bacteriologic
- B. Physical**
- C. Chemical
- D. Biological

473. What type of water analysis is involved in the detection and estimation the chemical substances in the water sample?

- A. Bacteriologic
- B. Physical
- C. Chemical**
- D. Biological

474. What is the minimum technical requirement for a physical plant of a water analysis laboratory? (in sq. m.)

- A. 10
- B. 20**
- C. 30
- D. 40

475. The certificate of accreditation for water testing laboratories is valid for how many year/s?

- A. 1
- B. 2**
- C. 3
- D. 4

476. Daniel is working in a clinical laboratory near Quezon City, is also teaching interns in a certain college during his free period. Is Daniel violating the Code of Ethics for Medical Technologist?

- A. Yes, he has more than one job and the Code of Ethics prohibits it
- B. No, as long as there is no conflict of interest**
- C. Yes, he's teaching in interns without the necessary master's degree
- D. No, as long as his two jobs are near each other

477. In accordance with the principles of professional conduct for Medical Technologists, what is the commitment expected regarding the treatment of confidential information acquired during the course of work?

- A. Share it with colleagues for professional discussions
- B. Disclose it publicly for transparency
- C. Treat it as strictly confidential, divulging only to authorized persons or entities**
- D. In accordance with the principles of professional conduct for Medical Technologists, what is the commitment expected regarding the treatment of confidential information acquired during the course of work?

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

478. Which is NOT a good behavior in relation to Medical Technology?

- A. Professionalism
- B. Fairness
- C. Respect
- D. Religious

479. In the Professional Oath for Medical Technologists in the Philippines, what specific commitments and responsibilities are expressed by the individual taking the oath?

- A. Adhering to ethical and professional standards, and fulfilling duties with dedication
- B. Avoiding any legal obligations and evading responsibilities
- C. Disregarding the Constitution of the Philippines
- D. Following orders selectively based on personal beliefs

480. The last word in the “Panunumpa ng Propesyunal” is:

- A. Diyos
- B. Panginoon
- C. Maykapal
- D. Bathala

481. A 22-year-old woman was admitted to the hospital with a headache, stiff neck, and photophobia but an intact mental status. Laboratory tests reveal cryptococcal meningitis, an infection commonly associated with HIV infection. When given the diagnosis, she adamantly refuses to be tested for HIV. How should the medical technologist handle the situation?

- A. Test for HIV despite the patient's refusal
- B. Do not test for HIV, because as for any other medical procedure, testing should be done only with the informed consent of the patient
- C. Test the patient for HIV anonymously, without any identifying remarks
- D. Report the patient's cryptococcal meningitis to the Department of Health and ask the Department to test the patient for HIV

482. On repeated occasions, the day shift supervisor has observed a medical technologist on the night shift sleeping. Which of the following is the MOST APPROPRIATE initial course of action for the day supervisor?

- A. Ignore the repeated incidents
- B. Advise the laboratory director
- C. Notify the personnel department
- D. Discuss the incidents with the medical technologist's immediate supervisor

483. How can you show sympathy to your patient?

- A. Acknowledge their pain
- B. Practice bedside manners
- C. Respect the patient
- D. Share your personal interest

484. Health: Blue; Red:

- A. Flammability
- B. Stability
- C. Special
- D. Reactivity

485. The blue portion on the NFPA Safety Diamond indicates _____.

- A. Fire hazard
- B. Reactivity
- C. Specific hazard
- D. Health

486. Hazard 3:

- A. Slight hazard
- B. Moderate hazard
- C. Serious
- D. Extreme

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

487. What color of waste bag should you use when you have a wet, infectious wastes?

- A. Yellow with black band
- B. Green
- C. Yellow
- D. Blue

488. What is the best way to break the chain of infection?

- A. Quarantine
- B. Home isolation
- C. Handwashing
- D. Contact tracing

489. What is benchmarking?

- A. A four-step cycle that allows you to implement change, solve problems, and continuously improve processes
- B. Provides recommendations for the number of staffs needed to handle and unpredictable workload
- C. Measurement of an organization's products or services against specific standards for comparison and improvement
- D. The process by which samples of bodily fluid or tissue are collected, annotated, stored and redistributed for research to improve understanding of health and diseases

490. The rider delayed the release of send out test result, what type of error is indicated?

- A. Pre-analytical
- B. Analytical
- C. Post-analytical
- D. AOTA

491. Which among the choices is a normal angle used in venipuncture?

- A. 25
- B. 35
- C. 45
- D. 32

492. The physician request for the following laboratory tests: FBS, LIPID PROFILE, CBC and PLATELET STUDIES. What is the order of draw?

- A. Purple – Blue – Red
- B. Red – Green – Purple
- C. Blue – Red – Purple
- D. Yellow – Purple – Red

493. In the basic units of SI system, what is the unit name of mass?

- A. Meter
- B. Second
- C. Kilogram
- D. Candela

494. Which of the following is a greenhouse gas that traps heat in the atmosphere?

- A. Carbon dioxide
- B. Nitrogen
- C. Hydrogen
- D. Oxygen

495. Who introduced the medical technology practice in the Philippines after WW II?

- A. Dr. Pio de Roda
- B. Dr. Prudencia Sta. Ana
- C. 26th Medical Laboratory of the 6th US Army
- D. Dr. Mariano Icasiano

496. What is the first school that offers BS Medical Technology in the Philippines?

- A. FEU
- B. UST
- C. PCU
- D. EAC

HISTOPATHOLOGY & MEDTECH LAWS EXAMINATION AND RATIO

497. The Father of Philippine Association of Medical Technologist (PAMET):

A. Mr. Nardito Moraleta

B. Mr. Crisanto Almario

C. Mr. Charlemagne Tamondong

D. Sen. Arturo Tolentino

498. Who is the current Secretary of Health?

A. Dr. Maria Rosario Singh-Vergeire

B. Dr. Francisco T. Duque

C. Dr. Teodoro J. Herbosa

D. Dr. Enrique A. Tayag

499. A medical technologist can work in all of the following, EXCEPT:

A. Nuclear medicine laboratory

B. Forensic laboratory

C. Doctor's office

D. NOTA

500. Philippine Medical Technology Week:

A. 1st week of September

B. 2nd week of September

C. 3rd week of September

D. 4th week of September