



SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES & TECHNOLOGY
THIRUVANANTHAPURAM—695 011, INDIA.

(An Institute of National Importance under Govt. of India)

Phone—(91)0471—2443152 Fax—(91)0471—2446433, 2550728

Email-sct@sctimst.ac.in Web site—www.sctimst.ac.in

ROLL NUMBER:

WRITTEN TEST FOR MFCP OF TECHNICAL ASSISTANT (LAB)
PATHOLOGY – A TO B

DATE : 26/11/2019

TIME : 9.30 AM

DURATION : 60 MINUTES

TOTAL MARKS : 50

INSTRUCTIONS TO THE CANDIDATE

1. Write your Roll Number on the top of the Question Booklet and in the Answer Sheet.
2. Each question carries 1 mark.
3. There will not be any Negative Marking.
4. Write legibly the alphabet of the most appropriate answer in the separate answer sheet provided.
5. Over-writing is not permitted.
6. Marking more than one answer will invalidate the answer.
7. Candidate should sign on the Answer Sheet.
8. Candidate should hand over Answer Sheet to the invigilator before leaving the examination hall.

WRITTEN TEST FOR IMFCP - TECHNICAL ASSISTANT (LAB) PATHOLOGY – A TO B

1. The tissue processing stages include all, *except*:
A. Dehydration B. Infiltration C. Clearing D. Dissolution
2. Neutral buffered formalin is a:
A. Dehydrant coagulant fixative C. Compound fixative
B. Non-coagulant cross-linking fixative D. Physical fixative
3. All of the following influence tissue processing, *except*:
A. Agitation B. Vacuum C. Viscosity D. Specific gravity
4. The most widely used clearing agent in tissue processing is:
A. Benzene B. Toluene C. Xylene D. Histosolve
5. All of the following are true regarding paraffin wax, *except*:
A. Inexpensive C. Provides quality sections
B. Suitable for Electron Microscopy D. Suitable for Immunohistochemistry
6. The commonest microtome routinely used in Histopathology is:
A. Rotary microtome C. Sliding microtome
B. Ultra-microtome D. Base sledge microtome
7. The following are the common requirements for paraffin section cutting, *except*:
A. Tissue flotation bath C. Dessicator
B. Camel haired brush D. Slide drying oven
8. Thick and thin zones parallel to blade edge seen in sections is known as:
A. Charter B. Carter C. Chatter D. Chalet
9. Sections will not form ribbons in all of the cases, *except*:
A. Paraffin wax too hard C. Debris on knife edge
B. Incorrect clearance angle D. Block edges not parallel
10. Frozen sections are cut in:
A. Thermostat B. Cryostat C. Freezer D. Lyophiliser
11. Frozen sections are useful for all, *except*:
A. Intraoperative diagnosis C. Lipid stain
B. Enzyme histochemistry D. Calcium stain
12. The purpose of anti-roll plate in cryostat is to:
A. Prevent upward curl of frozen sections C. Enable upward curl of frozen sections
B. Compress sections D. Rotate sections
13. The most common agent used to freeze skeletal muscle biopsies is:
A. Thiopentane cooled in liquid nitrogen C. Isopentane cooled in liquid nitrogen
B. Isopentane cooled in carbon dioxide D. Thiopentane cooled in carbon dioxide
14. The role of mordant present in haematoxylin is to:
A. Decrease tissue affinity C. Confer a net negative charge
B. Increase tissue affinity D. Interact with eosin
15. All of the following are alum haematoxylins, *except*:
A. Mayer's B. Harris's C. Ehrlich's D. Heidenhain's
16. The method of Haematoxylin and Eosin staining used in our laboratory is:
A. Regressive B. Progressive C. Intermediate D. Neutral

WRITTEN TEST FOR I MFCP - TECHNICAL ASSISTANT (LAB) PATHOLOGY - A TO B

17. The Haematoxylin presently used in our laboratory is:
A. Alum haematoxylin C. Molybdenum haematoxylin
B. Tungsten haematoxylin D. Iron haematoxylin
18. The color of skeletal muscle fibres in Masson trichrome stain is:
A. Blue B. Red C. Orange D. Yellow
19. The crucial step in staining of elastic fibres by van Gieson method is:
A. Differentiation B. Fixation C. Dehydration D. Clearing
20. PAS stain is used for detection of the following, *except*:
A. Glycogen B. Mucin C. Fungus D. Myelin
21. Kulchitsky Pal (K Pal) stain is used for detection of:
A. Myelin C. Basement membrane
B. Collagen D. Elastin
22. The color of myelin in Kulchitsky Pal (K Pal) stain is:
A. Blue B. Brown C. Black D. Grey
23. Heat is used during Ziehl-Neelsen staining to:
A. Help the dye to stain the Mycobacteria
B. Prevent the dye from staining the Mycobacteria
C. To protect the capsule
D. To kill the Mycobacteria
24. Lepra bacilli are best demonstrated by:
A. Warthin-Starry method C. Gimenez method
B. Modified Fite method D. Ziehl-Neelsen method
25. All of the following stains are used to detect fungal organisms, *except*:
A. PAS C. Mucicarmine
B. Grocott's methenamine silver D. Warthin-Starry
26. Nissl stain uses:
A. Cresyl violet B. Crystal violet C. Methylene blue D. Toluidine blue
27. Before Kulchitsky Pal (K Pal) stain, the nerve biopsy is fixed overnight in:
A. Alexander's solution C. Robert's solution
B. Fleming's solution D. Colin's solution
28. All of the following are components of Fleming's solution used in Kulchitsky Pal (K Pal) stain, *except*:
A. Osmium tetroxide C. Chromium trioxide
B. Glacial acetic acid D. Formic acid
29. The following has to be done after staining with Lugol's iodine for 2 hours:
A. Wash in tap water C. Wash in deionised water
B. Do not wash in water D. Wash in alcohol
30. The routine enzyme histochemical stains performed on muscle biopsy include all, *except*:
A. MGT B. SDH C. NADH-TR D. Acid phosphatase
31. The following stains are useful for identifying type 1 and type 2 fibres in muscle biopsies, *except*:
A. ATPase C. Slow myosin
B. Fast myosin D. Haematoxylin and Eosin

Handwritten signature

WRITTEN TEST FOR I MFCP - TECHNICAL ASSISTANT (LAB) PATHOLOGY - A TO B

32. The blue color seen in NADH-TR is due to formation of the following:
A. Quinone B. Formazan C. Tetrazolium D. Nitrite
33. All of the following are muscle immunostains, *except*:
A. Dystrophin B. Sarcoglycan C. Dysferlin D. GFAP
34. The color of mitochondria in MGT stain is:
A. Green B. Red C. Brown D. Black
35. The method of immunohistochemistry used in our laboratory is:
A. Direct antibody labelling C. Tertiary antibody labelling
B. Secondary antibody labelling D. Quaternary antibody labelling
36. The most commonly used enzyme label and chromogen combination used for immunohistochemistry is:
A. HRP and DAB C. HRP and Vector red
B. Alkaline phosphatase and Fast red D. Alkaline phosphatase and DAB
37. All of the following methods are used for epitope retrieval (antigen unmasking), *except*:
A. Proteolytic enzyme digestion C. Pressure cooking
B. Microwave heating D. Nitric acid
38. Protein block is used to:
A. Enhance the action of chromogen C. Reduce background staining
B. Decrease the action of chromogen D. Block endogenous peroxidase activity
39. Positive control is required for performing all of the following immunostains, *except*:
A. R132H-mutant IDH1 C. G34R-mutant H3
B. K27M-mutant H3 D. ATRX
40. All of the following antibodies stain the nuclei, *except*:
A. p53 B. MIB-1 C. PRL D. TTF1
41. All of the following antibodies stain the cytoplasm, *except*:
A. Vimentin B. Cytokeratin C. GFAP D. ATRX
42. The pituitary panel performed in our laboratory includes the following immunostains, *except*:
A. GH B. STAT6 C. ACTH D. PRL
43. Presently, in our laboratory, all of the following tests are performed by ELISA technique, *except*:
A. NMDA B. ANCA C. APLA D. MUSK
44. The strength of the color change in ELISA is measured using a:
A. Gel Doc C. Spectroscope
B. Spectrophotometer D. Fluorescent microscope
45. All of the following acids are used for decalcification, *except*:
A. Nitric acid B. Hydrochloric acid C. Formic acid D. Citric acid
46. The stain commonly used to demonstrate internal elastic lamina in blood vessels is:
A. van Gieson stain B. Masson trichrome C. Reticulin stain D. PAS
47. All of the following muscle immunostains stain the membrane (sarcolemma), *except*:
A. Dystrophins B. Sarcoglycans C. Merosin D. Emerin

Handwritten signature

WRITTEN TEST FOR IMFCP - TECHNICAL ASSISTANT (LAB) PATHOLOGY - A TO B

48. In our laboratory, the recommended fixative for nerve biopsy is:
- A. Neutral buffered formalin
 - B. 2.5% glutaraldehyde
 - C. Normal saline
 - D. 20% formalin
49. In our laboratory, the epilepsy panel includes all of the following immunostains, *except*:
- A. NeuN
 - B. Neurofilament (NF)
 - C. GFAP
 - D. p53
50. In our laboratory, all of the following immunological tests are performed for myasthenia gravis, *except*:
- A. Acetylcholine receptor
 - B. MuSK
 - C. Titin
 - D. LRP4

Handwritten signature

MFCP -Technical Assistant (Lab) Pathology-A to B

Answer Key

| | | | | | |
|----|---|----|---|----|---|
| 1 | D | 20 | D | 39 | D |
| 2 | B | 21 | A | 40 | C |
| 3 | D | 22 | C | 41 | D |
| 4 | C | 23 | A | 42 | B |
| 5 | B | 24 | B | 43 | A |
| 6 | A | 25 | D | 44 | B |
| 7 | C | 26 | A | 45 | D |
| 8 | C | 27 | B | 46 | A |
| 9 | D | 28 | D | 47 | D |
| 10 | B | 29 | B | 48 | B |
| 11 | D | 30 | D | 49 | D |
| 12 | A | 31 | D | 50 | D |
| 13 | C | 32 | B | | |
| 14 | B | 33 | D | | |
| 15 | D | 34 | B | | |
| 16 | A | 35 | B | | |
| 17 | A | 36 | A | | |
| 18 | B | 37 | D | | |
| 19 | A | 38 | C | | |

Kant