



1. What is microtechnique?
2. What are types of microtechnique?
3. What are non section methods and give an example for each?
4. What are types of sectioning methods?
5. Define paraffin method
6. What are main steps of paraffin method?
7.is a medical treatment that prevents patients from feeling pain during procedures like surgery, certain screening and diagnostic tests, tissue sample removal (e.g., skin biopsies), and dental work.
8. is popularly used in veterinary anesthesia for all animal species.
9. Define gross examination
10. Define Surgical resection specimens
11. Gross examination includes.....
12. Define biopsy.
13. What are types of biopsies and describe them?
14. What is the purpose of fixation?
15. What will happen with removed tissues without doing preservation?
16. What are properties of perfect fixation?
17. What are factors affecting fixation?
18. Give two examples of fixatives.
19. What are components of bouns fluid?
20. The process by which the water present in the tissue are removed and replaced by alcohol is called
21. Explain dehydration and support it with figure.
22. What are dehydration agents?
23. What is clearing?
24. What are agents that can be used for clearing?
25. What will happen if we skip dehydration in paraffin method?
26. Define infiltration, then what is the purpose of this step in paraffin method?
27. What is embedding?
28. What are types of microtome and in which step of paraffin method do we need microtome ?

29. Why staining is important?
30. Classify stains according to stained parts of the cell?
31. What is vital stain?
32. What are basic steps in staining and mounting paraffin sections?
33. What are types of mounting media?
34. Explain types of mounting media and give example for each
35. Define bluing
36. Define TEM
37. What are difference between TEM?
38. What are advantages and disadvantages of TEM and SEM?
39. What are steps of plastic method?
40. What are components of durcupan mixture?
41. What are types of sections and what are differences between them?
42. Write about staining in TEM
43. What is difference between primary and secondary electron in SEM?
44. What are the advantages and disadvantages of SEM?
45. What are source of specimen contamination in SEM?
46. What are the steps of specimen preparation for SEM?
47. Define IHC?
48. Write about principle of IHC
49. What are applications of IHC?
50. What are types of IHC?
51. What are differences between direct and indirect IHC?
52. Define multiplex IHC
53. What are steps of preparing specimen for IHC?
54. What are advantages and disadvantages of IHC?
55. Define cell culture
56. What are types of cell culture
57. What is the difference between adherent and suspension cell culture?

- 58.**What are sources of cells for cell culture?
- 59.** What are advantages and disadvantages of cell culture ?
- 60.** What are main steps of cell culture ?
- 61.**What is the goal of imaging and analysis of microscopic data?
- 62.**What are steps involved in imaging and analysis of microscopic data?
- 63.** What are common features that are extracted from microscopy image ?
- 64.**Define live cell imaging

Dr. Khder Hussein Rasul