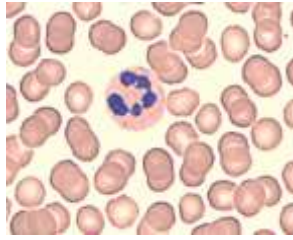


1. What are methods of cell counting?
2. \_\_\_\_\_ the thinnest solid rods class of the cytoskeletal fibers; they are active in muscle contraction.

3. Identify figure

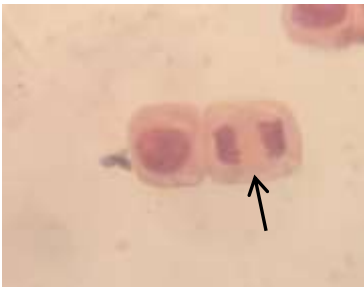


4. A special slide use to count the number of cells such as white blood cells is called \_\_\_\_\_.

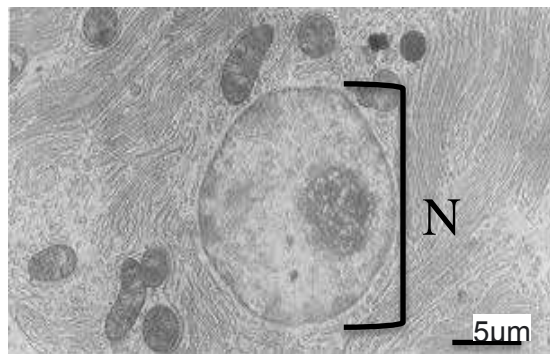
5. Give example for the following cell shapes

6. Rod \_\_\_\_\_→
7. Columnar shaped cell \_\_\_\_\_→
8. Star shape \_\_\_\_\_→
9. Kidney Shaped \_\_\_\_\_→

10. Identify figure



11. Draw and label cell membrane
12. Determine the real length of the nucleus of this electron micrograph, if you know that the length of nucleus on the graph is equal to 60 mm and length of bar is 10 mm? ( marks)

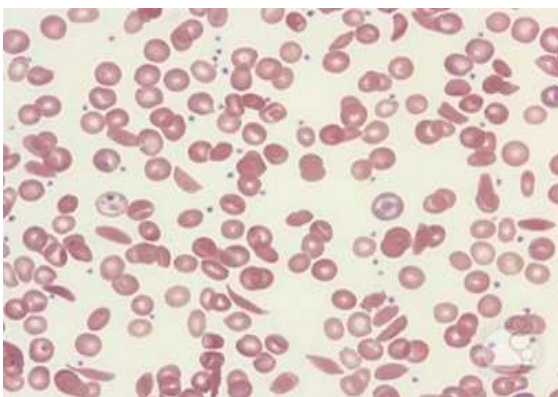


13. Define Tonoplast

14. Write about Cellular respiration
15. Defin Hyperplasia
16. What methods of cell counting have we done in our lab?
17. For each blood smear we need 2 slides, one to put a drop of blood on and the other to spread the blood that it called \_\_\_\_\_
18. Anaerobic respiration or fermentation is divided into \_\_\_\_\_ and \_\_\_\_\_ types.
19. There are three cellular regions near the tip of an onion root \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
20. Oval shape cell \_\_\_\_\_→
21. Columnar shaped cell \_\_\_\_\_→
22. Polyhedral shape cell \_\_\_\_\_→
23. Draw and label cell cycle
24. . Identify the figure



25. Identify the figure?



26. Mention the purpose of using Methyl alcohol in blood smear
27. using of Warm HCl used in squash and maceration thechnique

28. Aim of uses Ocular micrometer

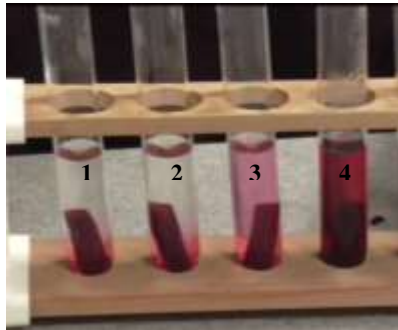
29. Define Metaplasia

30. What are stages of Cellular respiration

31. What is Cytoskeleton

32. Determine the real length of the vacuole of this electron micrograph, if you know that the length of vacuole on graph is equal to 35 mm and magnification power is 3500X (2 marks)

33. Write the name of the experiment ?and explain the results?



34. Based on below microscopic field, find the number of cells in  $1\text{mm}^2$ , if you know the radius of the field is equal to 10 units (lines) of stage micrometer at 100X. (4 marks)

