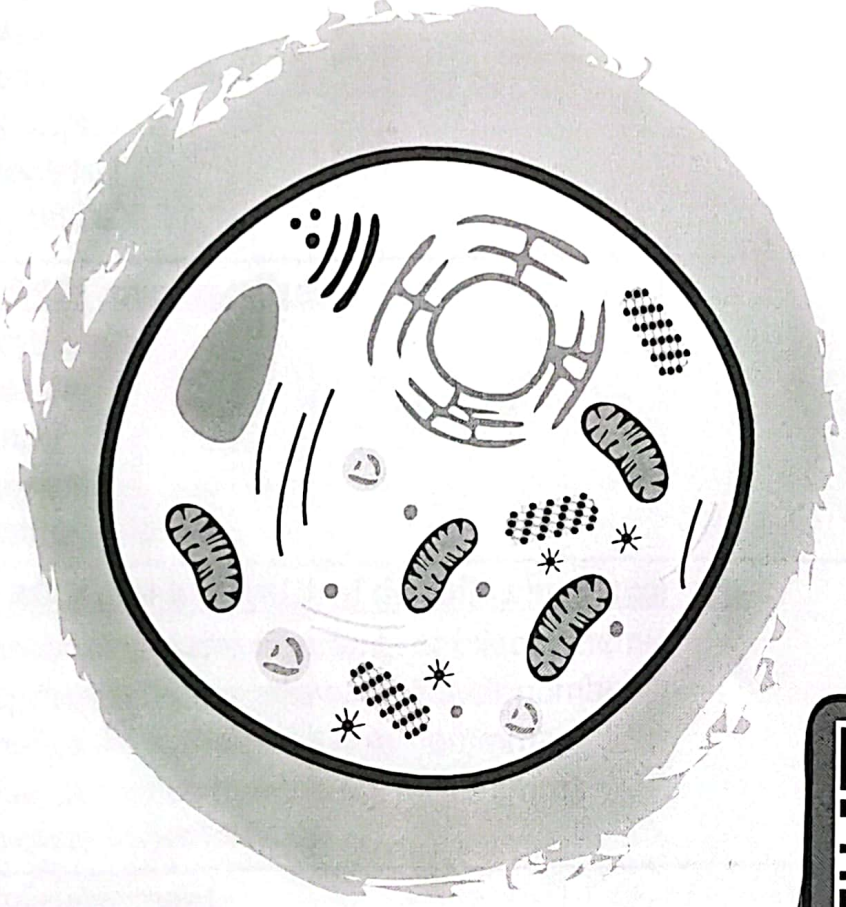
Level-1 Semester-2

Histology - HIS

BERLIN



SCAN ME

MCQ Lecture 1

RBCs + PLATELETS

DR M. YUSUF

MCQ on RBCs + Platelets

1. What is the light microscopic picture of platelets:- a) Appear biconcave disc shaped b) Appear oval non-nucleated discs c) Irregular cell membrane with thick cell coat d) Their inner part is transparent (Hyalomere) e) Their outer part is dark stained (Granulomere)	***B***
2. What is the normal life span of platelets:- a) 1-2 days b) 7-10 days c) 30-35 days d) 1-2 months e) 5-10 months	***B***
3. Decreased RBCs count is called:- a) Polycythemia b) Leukemia c) Anemia d) Leukopenia e) Thrombocytopenia	***C***
4. Regarding RBCs number, which of the followings is correct:- a) Its number increases in anemia or oligocythemia b) Polycythemia means decrease in their number c) Normal count in males 4.5-6 million/mm3 d) Normal count in females 6-6.5 million/mm3 e) It increases in hemorrhage	***C***
5. Decreased platelet count:- a) Leucopenia b) Anemia c) Leukocytosis d) Thrombocytopenia e) Thrombocytosis	***D***

6. Increased platelet count:- a) Leucopenia b) Anemia c) Leukocytosis d) Thrombocytopenia e) Thrombocytosis	**E**
7. Mature erythrocytes:- a) Their life span is about 4 months b) Have a diameter of about 12 picometer c) Have nuclei and cell organoids d) Are rounded shaped cells e) Have segmented nucleus	**A**
8. All of the following are adaptability of RBC to its function except:- a) Cell membrane is highly selective b) Absence of nucleus and organoids c) Biconcave surface of RBC d) Cytoplasm contains large amount of granules e) Flexibility of cell membrane	**D**
9. Individual RBC appears:- a) Blue in color b) Colorless c) Rounded with biconcave surface d) Rounded with biconvex surface e) Nucleated cell	**C**
10. In stained sections, Normal RBCs with normal Hb appear:- a) Acidophilic color with pale center b) Deep acidophilic appearance with stained center c) Pale acidophilic appearance d) Basophilic color with pale center e) Pale basophilic appearance	**A**

11. Normal shape of single RBC:- a) Sphere shaped b) Swollen c) Sickle cell d) Rounded with biconcave surface e) Rouleux formation	***D***
12. Normal RBCs count in males:- a) 4.5-6 million/mm3 b) 4-4.5 million/mm3 c) 3-3.5 million/mm3 d) 7-8 million/mm3 e) 8-9 million/mm3	***A***
13. Normal structure of RBCs:- a) Non-nucleated with organoids and Hb b) Non-nucleated, No organoids with selective permeability of membrane c) Non-nucleated, No organoids, no Hb d) Nucleated with Hb and no organoids e) None of the above	***B***
14. Normal platelet count:- a) 10000-15000/mm3 b) 150000-400000/mm3 c) 4000-11000/mm3 d) 4-5.5 million/mm3 e) 4.5-6 million/mm3	***B***
15. Life span of platelets:- a) 15-20 days b) 7-10 days c) 60 days d) 24 hours e) 120 days	***B***

16. Delta granules of platelets contain:- a) Lysosomes b) Platelet derived growth factor c) Mitochondria d) Serotonin e) DNA	**D**
17. Alpha granules of platelets contain:- a) Lysosomes b) Platelet derived growth factor c) Mitochondria d) Serotonin e) ATP	**B**
18. Serotonin is secreted from which of platelet granules:- a) Alpha granules b) Beta granules c) Delta granules d) Lambda granules e) Lysosomes	**C**
19. True about platelets:- a) Contain serotonin inside alpha granules b) Contain actin filaments in granulomere c) Contain fibrinogen inside delta granules d) Lack nucleus e) Contain lysosomal granules in hyalomere	**D**
20. Blood platelets in human:- a) Have multilobed nucleus b) 25000-35000/mm3 c) Have phagocytic function d) Produce antibodies e) Play a role in hemostasis	**E**

21. Concerning adaptation of RBCs:- a) Its biconvexity increases surface area for gas exchange b) The tough cell membrane prevents them from being squeezed in narrow vessels c) The permeable cell membrane allows hemoglobin to pass out d) Absence of nuclei allows more space for hemoglobin e) None of the above	**D**
22. Platelets:- a) True cells b) Are fragments of Megakaryocytes c) Measure 6-9 micron d) Range 4000-10000/mm3 e) Play a role in oxygen delivery to tissues	**B**
23. Red bone marrow is present in which of the followings:- a) In shafts of long bones in adults b) Intervertebral discs c) In most of the bones of the fetus d) Mucoid connective tissue e) Tendons of muscles	**C**
24. Erythropoiesis means the development of:- a) Red blood cells b) Lymphocytes c) Monocytes d) Basophils e) Eosinophils	**A**
25. Main site of erythropoiesis in middle age is:- a) Red bone marrow b) Amniotic cavity c) Yolk sac d) Lymph node e) Lung	**A**

26. Regarding platelet development:- a) Stimulated by erythropoietin hormone b) Megakaryoblasts have acidophilic granular cytoplasm c) Megakaryocyte is very small d) Megakaryocyte has large lobulated nucleus e) Pro-megakaryocytes are small with acidophilic non-granular cytoplasm	D
27. Erythropoiesis:- a) Means the development of platelets b) Occurs in myeloid cell lineage c) HB formation is the first step in it d) Occurs in yellow bone marrow e) Reticulocytes are basophilic	B
28. Nucleus disappears in erythropoiesis in:- a) Reticulocyte b) CFU erythroblast c) Basophilic erythroblast d) Proerythroblast e) Polychromatic erythroblast	A
29. During erythropoiesis, hemoglobin starts to appear in:- a) Basophilic erythroblast b) CFU-Erythroblast c) Reticulocyte d) Normoblast e) Polychromatic erythroblast	E
30. Megakaryocytes have one of the following characters:- a) Small cell b) Produce platelets by mitosis c) Extend their long wide processes to produce platelets d) Have kidney-shaped nucleus e) Non-granular	C

31. Concerning reticulocytes:- a) They are smaller than mature erythrocytes b) Appear in peripheral blood not more than 2% c) Contain well-developed nucleus d) Contains numerous rER e) The first precursor cell in erythropoiesis	**B**
32. Blood smears are routinely stained with:- a) Acidic stain b) Basic stain c) Mixed acidic & basic stains d) PAS stain e) Silver stain	**C**
33. The mother cell of all blood cells hematopoiesis is called:- a) Pluripotent hemopoietic stem cell b) Colony forming unit c) Precursor cell d) Progenitor cell e) Blast cell	**A**
34. The progenitor cell for the development of platelets is:- a) CFU-erythrocytes b) CFU-granulocytes c) CFU-monocytes d) CFU-lymphocytes e) CFU-megakaryocytes	**E**
35. Yellow bone marrow can revert to red bone marrow in case of:- a) Diabetes mellitus b) Hypertension c) Thrombosis d) Bleeding e) Congestion	**D**

36. Biconvex RBCs can be detected in:- a) Sickle cell anemia b) Spherocytosis c) Iron deficiency anemia d) Local hypertonic media e) G6PD deficiency	**B**
37. Normal size of mature erythrocyte:- a) 3-4 micron b) 5-7 micron c) 6-9 micron d) 10-12 micron e) 15-20 micron	**C**
38. Normal RBCs count in females:- a) 4-5.5 million/mm3 b) 4.5-6 million/mm3 c) 5-6.5 million/mm3 d) 5.5-7 million/mm3 e) 6-7.5 million/mm3	**A**
39. Increased RBCs count is called:- a) Anemia b) Leukopenia c) Thrombocytopenia d) Leukocytosis e) Polycythemia	**E**
40. Normal life span of RBCs:- a) 30 days b) 60 days c) 90 days d) 120 days e) 7-10 days	**D**

41. Site of erythropoiesis in early embryo is:- a) Liver b) Yolk sac mesoderm c) Red bone marrow d) Spleen e) Yellow bone marrow	**B**
42. Site of erythropoiesis in 2nd trimester:- a) Liver b) Yolk sac mesoderm c) Red bone marrow d) Spleen e) Yellow bone marrow	**A**
43. The first precursor cell for RBCs is:- a) CFU-erythrocyte b) Basophilic erythroblast c) Proerythroblast d) Polychromatic erythroblast e) Normoblast	**C**
44. In erythropoiesis, mitosis (proliferation) is lost in:- a) CFU-erythrocyte b) Basophilic erythroblast c) Proerythroblast d) Polychromatic erythroblast e) Normoblast	**E**
45. Normal diameter of platelets:- a) 6-9 micron b) 5-7 micron c) 3-6 micron d) 2-4 micron e) 10-12 micron	**D**

46. Platelet specific proteins for blood clotting are found in:- a) Delta granules b) Alpha granules c) Beta granules d) Lambda granules e) Hyalomere	B
47. The largest cell in thrombopoiesis is:- a) Megakaryocyte b) Pro-megakaryocyte c) Megakaryoblast d) Promyelocyte e) Proerythroblast	A
48. The highly basophilic cell in thrombopoiesis is:- a) Megakaryocyte b) Pro-megakaryocyte c) Megakaryoblast d) Promyelocyte e) Proerythroblast	C
49. Which of the following cells is directly responsible for platelet production:- a) CFU cell b) Pro-megakaryocyte c) Megakaryoblast d) Megakaryocyte e) Metamyelocyte	D
50. Which one of the following describes the erythrocyte's cell membrane:- a) It has thick cell coat b) It is discontinuous membrane c) It is rigid and tough d) It shows microvilli e) It shows selective permeability	E