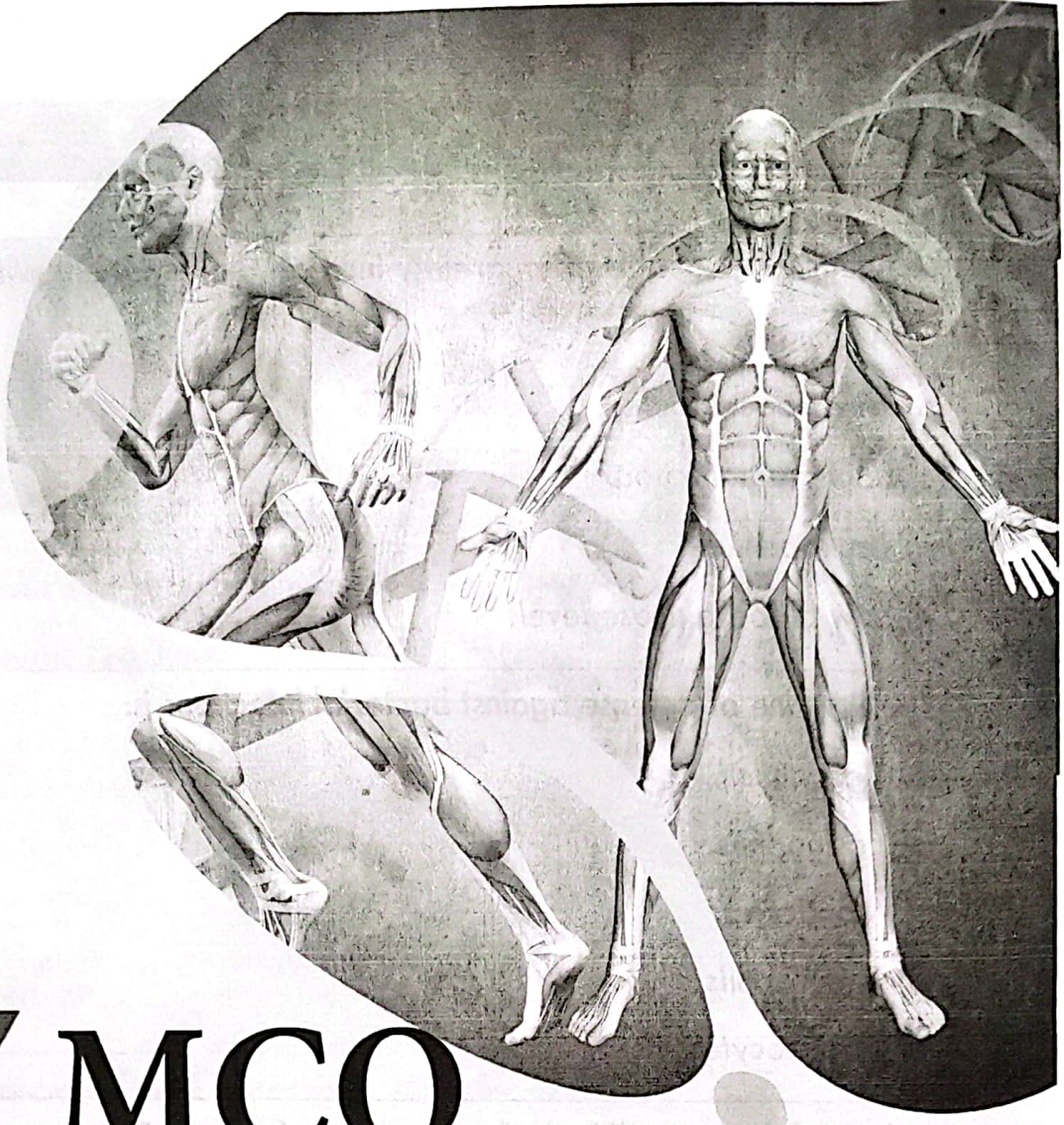
Level (1)
Sem (2)



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L.E

# MCQ PHYSIOLOGY HIS

## LECTURE (2)

Dr. M.M

# MCQ physio HIS 2

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| **1. The neurophil count is often greatly increased in a patient with:**<br>a) Anemia.<br>b) Thrombocytopenia.<br>c) Bacterial infection.<br>d) Leukopenia.<br>e) Low blood glucose level. | **C** |
| **2. The first line of defense against bacterial infections is:**<br>a) Basophils.<br>b) Eosinophils.<br>c) Monocytes.<br>d) Neutrophils.<br>e) Lymphocytes. | **D** |
| **3. Which of these conditions often causes leukocytosis?**<br>a) Leukopenia.<br>b) Thrombocytopenia.<br>c) Erythropoiesis.<br>d) Anemia.<br>e) Leukemia | **E** |
| **4. Which leukocyte's main function is phagocytosis?**<br>a) Basophils.<br>b) Lymphocytes.<br>c) Mast cells.<br>d) Neutrophils.<br>e) Eosinophils. | **D** |

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| ***5. ..... are the smallest leukocytes, some produce antibodies:***<br>*a) Basophils.*<br>*b) Eosinophils.*<br>*c) Lymphocytes.*<br>*d) Monocytes.*<br>*e) Neutrophils* | **C** |
| ***6. These leukocytes produce heparin and histamine, they play a role in inflammatory and allergic reactions:***<br>*a) Basophils.*<br>*b) Eosinophils.*<br>*c) Lymphocytes.*<br>*d) Monocytes.*<br>*e) Neutrophils.* | **A** |
| ***7. Leukocytes that is associated with allergies or parasitic infections:***<br>*a) Basophils.*<br>*b) Eosinophils.*<br>*c) Lymphocytes.*<br>*d) Monocytes.*<br>*e) Neutrophils.* | **B** |
| ***8. ..... are phagocytic cells and make up the largest percentage of leukocytes***<br>*a) Basophils.*<br>*b) Eosinophils.*<br>*c) Lymphocytes.*<br>*d) Monocytes.*<br>*e) Neutrophils.* | **E** |

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| **9. Which of the following is the function of white blood cells?**<br>a) *Transport oxygen.*<br>b) *Maintain homeostasis.*<br>c) *Defend against infection.*<br>d) *Produce hemoglobin.*<br>e) *Regulation of blood volume and tissue fluid formation.* | **C** |
| ***10. Which of White blood cell give immunoglobulin (antibodies) :***<br>a) *B-lymphocyte.*<br>b) *Neutrophil.*<br>c) *Basophile.*<br>d) *Monocyte.*<br>e) *T-lymphocyte.* | **A** |
| ***11. The largest cells in the blood that leave the bloodstream to become macrophages are the:***<br>a) *Eosinophils.*<br>b) *Monocytes.*<br>c) *Basophils.*<br>d) *Neutrophils.*<br>e) *Lymphocytes.* | **B** |
| ***12. A person with eosinophilia, increase numbers of eosinophils, is most likely suffering from:***<br>a) *Anemia.*<br>b) *Allergies or internal parasites.*<br>c) *Diabetes.*<br>d) *Bacterial infection.*<br>e) *Viral infection.* | **B** |

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| ***13. Name of cell that produce erythropiotin in liver is :***<br>*a) histocyte*<br>*b) reticular cell*<br>*c) kupffer cell*<br>*b) microglia* | **C** |
| ***14. Which of the following indicates a normal white blood cell count?***<br>*a) 150,000 to 300,000/mm3.*<br>*b) 2000 to 3000/mm3.*<br>*c) 4000 to 11000/mm3.*<br>*d) 15000 to 20000/mm3.*<br>*e) 20000 to 40000/mm3.* | **C** |
| ***15. An increase in the number of white blood cells is called:***<br>*a) Anemia.*<br>*b) Leukopenia.*<br>*c) Leukocytosis.*<br>*d) Agranulocytosis.*<br>*e) Polycythemia.* | **C** |
| ***16. Name of condition through which bone marrow dails to produce WBCs leaving body unprotected against infection is***<br>*a) Anemia*<br>*b) Leukopenia.*<br>*c) Leukocytosis.*<br>*d) Agranulocytosis.*<br>*e) Polycythemia.* | **D** |

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| **17. Which white blood count may indicate an infection in the body?**<br>a) 30000/mm3.<br>c) 5000/mm3.<br>b) 10000/mm3.<br>d) 4000/mm3.<br>e) 9000/mm3. | **A** |
| **18. Heparin is secreted by:**<br>a) Kidney.<br>b) Blood cells.<br>c) Nerve cells.<br>d) Liver.<br>e) Lung. | **B** |
| **19. The first line of defense against bacterial infection is:**<br>a) Basophils.<br>b) Eosinophils.<br>c) Monocytes.<br>d) Neutrophils.<br>e) Lymphocytes. | **D** |
| **20. The reticuloendothelial system performs all the following functions except:**<br>a) Formation of blood cells.<br>b) Repair of injured tissues.<br>c) Destruction of old blood cells.<br>d) synthesis of haemoglobin. | **D** |
| **21. Violent antigen-antibody reactions occur due to release of:**<br>a) Histamine.<br>b) Serotonin.<br>c) Acetyl choline.<br>d) Catecholamine. | **A** |

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| ***22. The enzyme in neutrophils that kills the ingested bacteria is:***<br>*a) Carbonic anhydrase.*<br>*b) Peroxidase.*<br>*c) Histaminase.*<br>*d) G-6-P dehydrogenase.* | **B** |
| ***23. Microphages are characterized by all the following except:***<br>*a) They are the most numerous white blood cells.*<br>*b) They are actively phagocytic.*<br>*c) They contain many lysosomal granules.*<br>*d) They can produce immunoglobulins.* | **D** |
| ***24. The B-lymphocytes:***<br>*a) Produce lymphokines.*<br>*b) Are the precursors of the NK cells.*<br>*c) Cause cell mediated immunity.*<br>*d) Are the precursors of the plasma cells.* | **D** |
| ***25. The neutrophil granulocytes:***<br>*a) Are immotile so they cannot leave the blood stream.*<br>*b) Are the least numerous leukocytes in the blood.*<br>*c) Contain lysosomes and oxidizing agents.*<br>*d) Have a life span of about 120 days.* | **C** |
| ***26. Immunoglobulins are produced by the:***<br>*a) Granulocytes.*<br>*b) Monocytes.*<br>*c) Erythrocytes.*<br>*d) Plasma cells.*<br>*c) Liver cells.* | **D** |

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| **27. What are the largest leucocytes?**<br>A) Eosinophils.<br>B) Lymphocytes.<br>C) Monocytes.<br>D) Neutrophils.<br>E) Reticulocytes. | **C** |
| **28. 0-70% of WBCs is formed of:**<br>A. Lymphocytes.<br>B. Monocytes.<br>C. Basophiles.<br>D. Neutrophils. | **D** |
| **29. The average life span for granulocytes is:**<br>A. 4-5 days.<br>B. 12-14 days.<br>C. 4-5 weeks.<br>D. 120 days. | **A** |
| **30. One of the following is a function of monocytes:**<br>A. Liberation of heparin.<br>B. Can phagocytose up to 100 bacteria.<br>C. Liberation of histamine during allergy.<br>D. Protection of the body against parasitic infection | **B** |
| **31. Uncontrolled production of WBCs (very high number) is:**<br>A. Leukocytosis.<br>B. Lymphocytosis.<br>C. Leukemia.<br>D. Leukopenia. | **C** |

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| **32. A condition in which bone marrow has little WBCs production is:**<br>A. Agranulocytosis.<br>B. Leukocytosis<br>C. Leukemia.<br>D. Leukopenia. | **D** |
| **33. The function of basophiles is:**<br>A. Protection against parasitic infection.<br>B. Powerful phagocytic cell.<br>C. Liberation of heparin.<br>D. phagocytose up to 100 bacteria. | **C** |
| **34. The most abundant of leukocytes are the:**<br>a) Neutrophils.<br>b) Eosinophils.<br>c) Basophils.<br>d) Monocytes.<br>e) Lymphocytes. | **A** |
| **35. Which of the following is CORRECT concerning the eosinophilic granulocytes:**<br>a) They produce antibodies.<br>b) They contain heparin.<br>c) They are weak phagocytic cells.<br>d) They have no nuclei.<br>e) They are attracted to a site of tissue damage by chemical agents secreted by this tissue. | **C** |
| **36. Monocytes:**<br>a) Are active in blood.<br>b) Are also called microphages.<br>c) Release heparin.<br>d) Become active when entering the tissues. | **D** |

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| **37. Which of the following is an example of a tissue macrophage?**<br>a) Kupffer cells in the liver<br>b) Red blood cells in the bloodstream<br>c) Platelets in the bone marrow<br>d) Osteocytes in the bone | **A** |
| **38. Which type of tissue macrophage is found in the central nervous system?**<br>a) Microglia<br>b) Alveolar macrophages<br>c) Kupffer cells<br>d) Langerhans cells | **A** |
| **39. Which of the following is not a function of tissue macrophages?**<br>a) Phagocytosis of foreign substances<br>b) Antigen presentation<br>c) Production of antibodies<br>d) Tissue repair and remodeling | **C** |
| **40. Tissue macrophages are derived from which type of precursor cells?**<br>a) Neutrophils<br>b) Eosinophils<br>c) Monocytes<br>d) Basophils | **C** |
| **41. Which of the following is an example of a tissue macrophage?**<br>a) Alveolar macrophages in the lungs<br>b) Neutrophils in the bloodstream<br>c) Basophils in allergic reactions<br>d) Eosinophils in parasitic infections | **A** |

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| **42. Which of the following is an antimicrobial substance released by neutrophils during phagocytosis?**<br>a) Interleukin-2<br>b) superoxide and hydrogen peroxide<br>c) Interferon-gamma<br>d) Tumor necrosis factor-alpha | **B** |
| **43. Which of the following is an example of an opsonin?**<br>a) Interferon<br>b) Lysozyme<br>c) Complement protein C3b<br>d) Histamine | **C** |
| **44. Opsonization is the process of:**<br>a) Engulfing pathogens by neutrophils<br>b) Coating pathogens with opsonins to enhance their recognition by neutrophils<br>c) Destroying pathogens through the release of toxic substances<br>d) Activating neutrophils to initiate phagocytosis | **B** |
| **45. Opsonins are molecules that:**<br>a) Are secreted by neutrophils to kill pathogens<br>b) Attach to pathogens to facilitate their recognition and uptake by neutrophils<br>c) Block the phagocytic receptors on neutrophils<br>d) Inhibit the release of inflammatory mediators by neutrophils | **B** |
| **46. Phagocytosis is a function of:**<br>a) B lymphocytes.<br>b) T-helper cells.<br>c) Neutrophils.<br>d) Basophils.<br>e) Platelets. | **C** |

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| **47. Phagocytosis is the main function of:**<br>a) *B-lymphocytes.*<br>b) *T-helper cells.*<br>c) *Monocytes.*<br>d) *Basophils.*<br>e) *Platelets.* | **C** |
| **48. Which of the following statements is CORRECT concerning the basophilic granulocytes:**<br>a) *They produce antibodies.*<br>b) *They contain heparin.*<br>c) *They are phagocytic WBCs.*<br>d) *They have no nuclei.*<br>e) *They are attracted to a site of tissue damage by chemical agents.* | **B** |
| **49. Which of the following statements about monocytes is correct:**<br>a) *It is converted into macrophages in an inflamed tissue.*<br>b) *It is more active in the blood than in the attacked tissue.*<br>c) *It is produced in the adult by the liver.*<br>d) *It does not accumulate outside the circulation in an area of inflammation.*<br>e) *It is classified as granulocytes.* | **A** |
| **50. About the white blood cells, all the following are true EXCEPT:**<br>a) *B & T lymphocytes are concerned with humoral and cellular immunity.*<br>b) *Eosinophils increase in allergic conditions and parasitic infections.*<br>c) *Basophils contain heparin and histamine.*<br>d) *Neutrophils are the least abundant leukocytes.* | **D** |

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| **51. Leucopenia is characterized by deficiency of:**<br>a) WBC number.<br>b) Hemoglobin value.<br>c) Protein C.<br>d) Platelets number.<br>e) Vitamin B12. | A |
| **52. Leucopenia is characterized by:**<br>a) A decrease in platelet number less than 100,000.<br>b) A decrease in RBC number less than 2 million.<br>c) A decrease in WBC number less than 4000.<br>d) Uncontrolled production of WBCs. | C |
| **53. Antibodies are:**<br>a) Produced by plasma cells.<br>b) Produced by basophils.<br>c) Produced by T lymphocytes.<br>d) Responsible for humoral and cellular immunities.<br>e) Non specific, each antibody attacks several kinds of antigens. | A |
| **54. The immunoglobulin responsible for allergic disorders is:**<br>a) IgA.<br>b) IgD.<br>c) IgG.<br>d) IgM.<br>e) IgE. | E |
| **55. Which are the two most common types of white blood cells?**<br>A. neutrophils and lymphocytes<br>B. erythrocytes and neutrophils<br>C. neutrophils and eosinophils<br>D. monocytes and lymphocytes | A |

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| **56. Which blood cell fits the following description: multi- lobed nucleus, inconspicuous cytoplasmic granules, most common type of blood cell except for red blood cells?**<br>A. neutrophil<br>B. eosinophil<br>C. basophil<br>D. lymphocyte | **A** |
| **57. If a blood sample is taken for DNA testing, which of the following would be examined?**<br>A. leucocytes<br>B. erythrocytes<br>C. thrombocytes<br>D. plasma proteins | **A** |
| **58. Which is the LEAST common type of white blood cell?**<br>A. lymphocyte<br>B. basophil<br>C. thrombocyte<br>D. neutrophil | **B** |
| **59. Which of the following WBCs have the longest life span?**<br>A. Neutrophils<br>B. Eosinophils<br>C. Basophils<br>D. Monocytes | **D** |
| **60. Which of the WBCs is similar to mast cells in its function?**<br>A. Neutrophil<br>B. Basophil<br>C. Eosinophil<br>D. Monocyte | **B** |

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| ***61. Asim, a 5 years old boy falls from his bicycle and receives a cut over the knee. His tissue macrophages & fibroblasts will move to the site of injury for repair by:***<br>*a. Ciliary movement*<br>*b. Ameboid movement*<br>*c. Chemotaxis*<br>*d. Margination*<br>*e. Whip-like movement* | **B** |
| ***62. A 45-years old man presents to the emergency with a 2-week history of diarrhea that has worsened progressively over the last several days. He has minimal urine output and is admitted to the hospital to get rehydrated. His stool specimen is positive for parasitic eggs. Which type of White Blood Cells would be elevated in number?***<br>*a. Eosinophils*<br>*b. Neutrophils*<br>*c. T lymphocytes*<br>*d. B lymphocytes*<br>*e. Monocytes* | **A** |
| ***63. Very young & very old patients are more likely to develop uncontrolled leukocytosis which may be indicative of:***<br>*a. Physiological jaundice*<br>*b. Haemolytic disease*<br>*c. Aplastic anemia*<br>*d. Leukemia*<br>*e. Bleeding disorder* | **D** |

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| **64. A young boy was brought to hospital emergency with complaint of acute pain in right iliac fossa. On history, examination & clinical investigation, he was diagnosed to have acute appendicitis. His TLC (per microlit.) is likely to be:**<br>a. 4,000<br>b. 6,000<br>c. 8,000<br>d. 10,000<br>e. 14,000 | **E** |
| **65. Regarding Opsonization:**<br>a. It involves breakdown of antibodies<br>b. It means neutralization of antigen by antibody<br>c. Antigen gets attached directly to the phagocyte receptor<br>d. Antibody makes a bridge between antigen & receptor<br>e. The antigen is surrounded by edges of cell membrane | **D** |
| **66. The mechanism of action of the following substance involves chemotaxis:**<br>a. Bacterial & viral toxins<br>b. Fungal & parasitic toxins.<br>c. Regenerative products of inflamed tissues<br>d. Plasma clotting enzymes<br>e. Reaction Products caused by inflammation. | **A** |
| **67. Which of the following is correct concerning B-lymphocytes?**<br>A. They are responsible for cellular immunity.<br>B. They differentiate into plasma cells that secrete gamma globulin or antibodies.<br>C. They are microphages that attack and destroy invading bacteria and viruses.<br>D. They can squeeze through the pores of the blood capillaries by diapedesis. | **B** |

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| **68. Which of these cells are macrophages?**<br>A. Neutrophils.<br>B. Eosinophils.<br>C. Basophils.<br>D. Monocytes. | **D** |
| **69. The neutrophil:**<br>A. Are immotile so they cannot leave the blood stream.<br>B. Are the least numerous leucocytes in the blood.<br>C. Have a life span of about 120 days.<br>D. Contains granules containing myeloperoxidase enzyme. | **D** |
| **70. The most important functional process that neutrophils and monocytes carry out is:**<br>A. Coagulation.<br>B. Antibody formation.<br>C. Phagocytosis.<br>D. Heparin secretion | **C** |
| **71. What immunologic signal causes mast cells to release their granular contents (e.g., heparin, histamine, brady- kinin, serotonin, and leukotrienes)?**<br>A) Release of interleukin (IL)-1 by macrophages<br>B) Cross-linking of cell surface-bound immunoglobulin E (IgE) by antigen<br>C) Binding of antigen-antibody complexes to immunoglobulin G (IgG) receptors<br>D) Binding of tissue factor to surface glycoproteins | **B** |
| **72. Which phagocytes can extrude digestion products and continue to survive and function for many months?**<br>A) Neutrophils<br>B) Basophils<br>C) Macrophages.<br>D) Eosinophils | **C** |

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| **73. A 65-year-old alcoholic experienced chest pain and cough with an expectoration of sputum. A blood sample revealed that his WBC count was 21,000/µl. What is the origin of these WBCs?**<br>A) Pulmonary alveoli<br>B) Bronchioles:<br>C) Bronchi<br>D) Trachea<br>E) Bone marrow | **E** |
| **74. Which cell type migrates into inflammatory sites to clean up necrotic tissue and direct tissue remodeling?**<br>A) Neutrophil<br>B) Macrophage<br>C) Dendritic cell<br>D) Eosinophil | **B** |
| **75. What is the term for binding of IgG and complement 3 to an invading microbe to facilitate recognition?**<br>A) Chemokinesis.<br>B) Opsonization<br>C) Phagolysosome fusion<br>D) Signal transduction | **B** |
| **76. What will occur after presentation of antigen by a macrophage?**<br>A) Direct generation of antibodies<br>B) Activation of cytotoxic T cells<br>C) Increase in phagocytosis<br>D) Activation of helper T cells | **D** |

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| 17. **Which of the following is true about helper T cells?**<br>A) They are activated by the presentation of antigen by an infected cell<br>B) They require the presence of a competent B-cell system<br>C) They destroy bacteria by phagocytosis<br>D) They are activated by the presentation of antigen by macrophage or dendritic cells | **D** |