KMCT COLLEGE OF ALLIED HEALTH SCIENCES
MUKKOM, KOZHIKODE, KERALA.
DEPARTMENT OF PHYSIOTHERAPY.
SECOND YEAR BPT

PATHOLOGY- QUESTION BANK

LONG ESSAYS

1. Classify arthritis. Describe the features of rheumatoid arthritis
2. Classify meningitis. Describe the pathology and laboratory diagnosis of tuberculosis meningitis.
3. Define and classify shock. Describe the pathogenesis of septic shock
4. Classify bone tumors. Explain the clinical and morphological features of osteosarcoma
5. Name the vascular lesions of the central nervous system. Describe the etiology, pathology and complications of any one of them
6. Define thrombosis. Discuss the pathogenesis and fate of thrombosis
7. Define thrombosis. Discuss the pathogenesis and fate of thrombosis
8. Classify hemolytic anemias. Describe the pathogenesis and laboratory diagnosis of hereditary spherocytosis
9. Define neoplasia and classify tumors. Differentiate between benign and malignant tumors
10. Classify meningitis. Describe the pathology and laboratory diagnosis of meningitis
11. Discuss rheumatic heart disease and mention the types of endocarditis
12. Define inflammation. Describe in detail about granulomatous inflammation.
13. Define necrosis. Describe in detail, the different types of necrosis with examples
14. Define necrosis. Describe in detail, the different types of necrosis with examples
15. Write the definition, classification and biological behaviour of benign and malignant neoplasms
16. . Explain in detail about types of necrosis and gangrene

17. Describe the types and pathogenesis of shock.
18. . Define inflammation and explain in detail about acute and chronic inflammation.
19. Describe wound healing by primary intention. Mention two factors which influence wound healing.
20. . Enumerate types of arthritis. Describe etiopathogenesis, lab diagnosis and morphology of rheumatoid arthritis
21. Describe the different types of necrosis with examples.
22. Classify bone tumors. Describe morphology and clinical features of osteosarcoma
23. Define and classify neoplasia. Discuss the differences between benign and malignant tumor
24. Define thrombus. Discuss etiopathogenesis and fate of thrombus.
25. . What is osteomyelitis. Describe about its etiology, pathogenesis, sequence of pathologic changes and complications.
26. What is Osteomyelitis. Describe about its etiology, pathogenesis, sequence of pathologic changes and complications"
27. Define edema. Discuss etiopathogenesis and types of edema
28. What are the causative agents and mode of transmission of tuberculosis. Write about its pathogenesis and laboratory diagnosis
29. Classify gangrene. Tabulate the differences between dry gangrene and wet gangrene.
30. Describe in detail the etiology and pathology of osteomyelitis
31. Define meningitis. Types of meningitis, CSF findings in each types of meningitis.
32. Define atherosclerosis. Discuss etiopathogenesis and complications of atherosclerosis
33. . Classify anemia. Describe in detail the clinical features and laboratory diagnosis of iron deficiency anemia
34. Define necrosis. Write types of necrosis and describe each types of necrosis.
35. Explain in detail about blood transfusion, grouping and transmissible infections including HIV and Hepatitis

36. Define inflammation. Describe the various vascular and cellular events involved in acute inflammation. Add a note on morphology and fate of acute inflammation

37. Define shock. Discuss the pathogenesis, types and morphologic changes seen in shock.

38. Define and classify shock. Describe the pathogenesis of septic shock

39. Describe wound healing by primary and secondary unions with a special note on fracture healing. Mention the factors affecting wound healing.

40. Define anemia. Classify anemias and give laboratory diagnosis of iron deficiency anemia.

41. Write a note on inflammation, its ethiopathogenesis and add a note on inflammatory cells and mediators

42. Define thrombosis. Describe pathophysiology of thrombosis and fate of thrombus

43. Define inflammation and name the types. Mention the features and causes of acute inflammation and explain in detail the vascular events

44. Define neoplasia. Describe the differences between benign and malignant neoplasms. Discuss various pathways of spread of malignant neoplasms.

45. Define and classify Amyloidosis. Describe the pathogenesis and special stains to demonstrate amyloid.

46. Define anaemia and classify. Give the aetiology of iron deficiency anaemia. Explain in detail clinical features and lab diagnosis of iron deficiency anaemia

47. Describe about congenital heart disease, etiopathogenesis and types

48. Define inflammation. Describe the vascular and cellular events acute in inflammation

49. . Define thrombosis. Classify thrombi based on site. Explain in detail etiopathogenesis of thrombus formation.

SHORT ESSAYS

1. Pathogenesis of shock.
2. Fracture healing
3. Megaloblastic anemia
4. Filariasis
5. Thrombosis
6. Gangrene
7. Brain Abscess
8. Cardiac oedema
9. Leukoplakia
10. Malignanat melanoma
11. Pathogenesis of gouty arthritis.
12. Diabetic nephropathy.
13. Lab diagnosis of AIDS.
14. Pathogenesis of atherosclerosis.
15. Metastasis.
16. Graves disease.
17. Basal cell carcinoma.
18. Osteoporosis.
19. Pathological calcification.
20. Sickle cell anemia.
21. Amyloidosis
22. Granulomatous inflammation
23. Lepromatous leprosy
24. Opportunistic infections

25. Metastasis
26. Clinical features and laboratory diagnosis of iron deficiency anemia
27. Mention the types and morphological changes in shock
28. Clinical features and laboratory diagnosis of iron deficiency anemia
29. Mention the types and morphological changes in shock
30. Factors influencing wound healing
31. Types of necrosis with examples.
32. Type -I hypersensitivity reaction.
33. Bronchiectasis
34. Pathogenesis of rheumatoid arthritis.
35. Describe the cellular events in acute inflammation
36. Amyloidosis
37. Cardiac edema
38. Thrombosis
39. Lab diagnosis of AIDS
40. Sickle cell anaemia
41. Metastasis
42. CSF findings in pyogenic meningitis and tubercular meningitis
43. Phagocytosis
44. . Meningioma
45. Osteomyelitis
46. Lab diagnosis of iron deficiency anemia
47. Kwashiorkor
48. Lepromatous leprosy
49. Describe the pathology of granulomatous inflammation

50. Pathogenesis of septic shock
51. Describe the pathology of granulomatous inflammation
52. Pathogenesis of septic shock
53. Wound healing
54. Sickle cell anemia
55. Marasmus and kwashiorkor
56. Explain the process of thrombus formation
57. Poliomyelitis
58. Describe in detail the pathogenesis of occupational lung diseases
59. Describe the aetio-pathogenesis and diagnosis of Jaundice.
60. Classification of amyloidosis.
61. Osteogenic sarcoma.
62. Renal calculi.
63. Iron deficiency anemia.
64. Basal cell carcinoma
65. Pathogenesis and laboratory diagnosis of pneumonia
66. Explain about thrombosis and embolism
67. Pathologic calcification.
68. Describe the pathogenesis of edema.
69. Spread of cancer.
70. Nephrotic syndrome.
71. Hereditary spherocytosis
72. Pathogenesis and morphology of alcoholic liver disease
73. Define and classify shock. Describe pathogenesis and pathology of shock
74. Pyogenic meningitis.

75. Cholelithiasis (gall stones).
76. Thrombosis.
77. Rheumatic heart disease
78. Hemophilia A
79. Describe causes, morphology and clinical features of cerebral infarction
80. Define inflammation. Describe the vascular and cellular events in acute
81. Inflammation
82. Wound healing
83. Hemophilia
84. Rheumatic heart disease
85. Hemophilia A
86. Infarction
87. Hepatitis
88. Myxedema
89. Describe about etiopathogenesis, morphologic features and diagnosis of ischemic
90. heart disease.
91. Define and classify shock. Discuss about pathogenesis and complications of shock.
92. Describe necrosis and gangrene with its types..
93. Cerebrospinal fluid (CSF) findings in pyogenic meningitis and tubercular meningitis
94. Pyogenic meningitis
95. Define metaplasia with examples
96. Classification and microscopy of leprosy
97. Morphology of osteosarcoma.
98. Hashimoto`s thyroiditis
99. Define necrosis. Name the different types of necrosis with examples.

100. Define anaemia. Discuss etiopathogenesis with blood and bone marrow picture In iron deficiency anaemia
101. Iron deficiency anaemia causes
102. Thrombosis
103. Pathological calcification
104. Factors affecting healing
105. Rickets
106. Mention the pathogenesis of thrombus formation
107. Describe the types of pathological calcification in detail
108. Define edema. Discuss etiopathogenesis of edema.
109. Define and classify neoplasia. Discuss the difference between benign and malignancy
110. Tumors
111. Tuberculosis
112. Anaemias and types
113. Malignant neoplasia
114. Malaria
115. Parkinsonism
116. Define and classify pneumonia. What are the etiological factors and pathologic
117. changes involved in lobar pneumonia
118. Define anaemia. Classify hemolytic anaemia. Write about its etiopathogenesis and
119. laboratory diagnosis
120. Describe the bone healing of fractures in long bones.
121. 3Metastasis
122. Types of necrosis
123. Thalassemia

124. Embolism
125. Wound healing
126. Cirrhosis
127. Describe the pathogenesis and morphology of Alcoholic Liver Disease.
128. Define and classify shock. Describe the pathogenesis of septic shock
129. Discuss vascular and cellular events in acute inflammation.
130. . Describe the process of wound hea
131. Neonatal Jaundice
132. Glomerular nephritis
133. Marasmus
134. Define pneumonia and types
135. Leukoplakia
136. Describe healing of fractured bone
137. Define neoplasm. What are the differences between benign and malignant neoplasms
138. Define gangrene and classify. Explain in detail gas gangrene.
139. Define embolism. Explain in detail fat embolism.
140. Megaloblastic anemia
141. Gangrene
142. Rheumatic heart disease
143. Amyloidosis
144. Aneurysm
145. Describe necrosis with types.
146. Define embolism and mention different types of embolism.
147. Define repair. Explain in detail wound healing by primary union.
148. Define shock and classify. Explain the etiopathogenesis of cardiogenic shock

149. Diabetes mellitus.
150. Tumor.
151. Osteomyelitis.
152. Pathological calcification.
153. Jaundice
154. Pathological calcification
155. Describe the pathogenesis and lab diagnosis of pulmonary tuberculosis
156. Explain in detail osteoarthritis.
157. Define pneumonia. Explain in detail lobar pneumonia.

SHORT ANSWERS

1. Atrophy
2. Necrosis
3. Asbestosis
4. Ulcer
5. Tuberculosis meningitis
6. Hypertrophy
7. Scurvy
8. Sickle cell anemia
9. Gastritis
10. Alcoholic cirrhosis
11. CSF findings in pyogenic meningitis.
12. Four causes of hematuria.
13. List cardinal signs of inflammation.
14. Fallot's tetralogy- components.

15. What is necrosis. Explain the types
16. Marasmus
17. List the population at risk of developing AIDS.
18. Types of Gangrene with examples
19. Explain Osteomyelitis
20. Enumerate the transfusion transmitted infections.
21. Vitamin D deficiency
22. Leukemoid reaction
23. Endocarditis
24. Pleomorphic adenoma
25. Basal cell carcinoma
26. Gross and microscopy of ulcerative colitis
27. Gumma
28. Components of Fallots tetralogy
29. Bronchiectasis
30. Complications of diabetes mellitus
31. Gross and microscopy of ulcerative colitis
32. Gumma
33. Components of Fallots tetralogy
34. Bronchiectasis
35. Complications of diabetes mellitus
36. Ashcoffs body
37. Stages of pneumonia
38. Multi nodular goiter.
39. Poliomyelitis

40. Causes of peptic ulcer
41. Gohn's Complex
42. Aschoff body
43. Sequestrum
44. Laboratory diagnosis of megaloblastic anemia
45. CSF findings in tuberculous meningitis.
46. Vitamin D deficiency
47. Types of gangrene
48. Causes of hematuria
49. Alcoholic cirrhosis
50. Ulcer
51. Hashimoto’s thyroiditis
52. Involucrum
53. Barrett’s esophagus
54. Odema
55. Hyaline change
56. Warthin tumor
57. Nephrotic syndrome
58. Cysticercosis
59. Gout
60. Hashimoto thyroiditis
61. Gout
62. Lepromatous leprosy.
63. Neuroblastoma
64. Sickle cell anemia

65. Alzheimer’s disease
66. Gout
67. Lepromatous leprosy.
68. Neuroblastoma
69. Sickle cell anemia
70. Alzheimer’s disease
71. Mention the stages of lobar pneumonia
72. Write two differences between hyperplasia and hypertrophy
73. Atrophy
74. Classify ischemic heart disease
75. Syringomyelia
76. Causes of lymph node enlargement
77. Iron deficiency anemia
78. Protein energy malnutrition
79. Polyps
80. Iodine deficiency goiter
81. Granulation tissue.
82. Marasmus and Kwashiorkor.
83. Primary complex.
84. Chemical carcinogens.
85. Three causes of lymph node enlargement
86. Define edema and its types
87. Define Neoplasm and give it's classification
88. Aneurysm
89. Myocardial infarction

90. Reversible cell injury
91. Stages of lobar pneumonia
92. Types of aneurysms
93. What is cirrhosis liver
94. Skeletal features of rickets
95. .Hashimoto thyroiditis
96. Graves' disease of thyroid
97. Scurvy
98. Diabetic neuropathy
99. Factors influencing wound healing
100. Routes of transmission of HIV infection
101. Granuloma.
102. Tuberculoid leprosy.
103. Osteoarthritis.
104. Any three features of SLE
105. Etiology of peptic ulcer.
106. Define edema. What are the types of edema
107. Obesity
108. Tuberculous meningitis
109. Gouty arthritis
110. Iron deficiency anemia
111. List any four signs of acute inflammation.
112. Granuloma.
113. Components of Fallot's tetralogy
114. Mention four components of diabetes mellitus.

115. Metastatic calcification
116. Bronchitis
117. Types of cirrhosis
118. Mention four complications of diabetes mellitus
119. Mention types of hypersensitivity reactions
120. Atrophy
121. Alcoholic liver disease
122. Bronchiectasis
123. HIV
124. Carcinogenesis
125. Wound healing
126. Enumerate the types of congenital heart diseases.
127. Type IV hypersensitivity reaction.
128. Enumerate the conditions that cause COPD.
129. Osteoporosis.
130. Types of emphysema
131. Mention three laboratory diagnosis of beta thalassemia
132. Cardinal signs of inflammation
133. Four examples of congenital heart diseases
134. Classify bleeding disorders
135. Thromboembolism
136. Tetralogy of Fallot
137. Tumour spread
138. Meningitis
139. Osteoarthritis

140. Bronchiectasis
141. Peptic ulcer
142. Protein energy malnutrition
143. Vitamin D Deficiency.
144. Hypersensitivity type 1 reaction
145. Types of embolism
146. Jaundice
147. Atrophy.
148. Osteoporosis
149. Ghon's complex.
150. Parkinsonism
151. Pyogenic meningitis
152. Complications of diabetes mellitus
153. Neurological changes in syphilis
154. Occupational lung diseases
155. Atherosclerosis
156. Hemophilia
157. Hashimoto's thyroiditis
158. Rheumatoid arthritis
159. Alcoholic liver disease
160. Asthma
161. Coagulopathies
162. Autolysis
163. Osteomalacia
164. Scleroderma

165. Gouty arthritis
166. Benign vs malignant neoplasm
167. Bronchial asthma
168. Obesity
169. Gastric ulcer
170. Necrosis.
171. Hypertrophy and hyperplasia.
172. Type 1 hypersensitivity reaction.
173. Lobar pneumonia.
174. Classify leprosy
175. Osteomyelitis
176. Leukemoid reaction
177. Rickets
178. Thyroiditis
179. Leukoplakia
180. Chemical carcinogenesis
181. Alzheimer's disease
182. Vitamin D deficiency
183. Hashimoto's thyroiditis
184. Sequestrum
185. Lobar pneumonia
186. Gout
187. Rickets
188. Rheumatic heart disease
189. Diabetic nephropathy

190. Amyloidosis
191. Atrial septal defect
192. Ulcer
193. Atrophy
194. Gangrene
195. Vitamin D deficiency
196. Define necrosis. What are the types of necrosis
197. Bronchiectasis
198. Osteoarthritis
199. Poliomyelitis
200. Fate of a thrombus.
201. Chemical carcinogens.
202. Type 1 hypersensitivity reaction.
203. Fallot's tetralogy
204. Complications of diabetes mellitus
205. Paget's disease of bone
206. Scurvy
207. Hemophilia
208. Bronchiectasis
209. Granulomatous inflammation
210. Bronchiectasis
211. Osteoporosis
212. Lab diagnosis of iron deficiency anemia
213. Types of aneurysm
214. Gastric Ulcer.

215. Chronic venous congestion lung.
216. Kwashiorkor.
217. Rickets.
218. Aneurysm.
219. Gastric ulcer.
220. Psoriasis.
221. Hypertrophy.
222. Cholecystitis.
223. Urinary tract infection.
224. Ischemia.
225. Modes of transmission of HIV infection
226. Type IV Hypersensitivity reaction
227. Poliomyelitis
228. Grave's disease
229. Gout
230. Primary complex.
231. Leukemia.
232. Dystrophic calcification.
233. Fatty liver.
234. Pyogenic meningitis.

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PATHOLOGY- ANSWER KEYS

1. Classify arthritis. Describe the features of rheumatoid arthritis:
   - Arthritis can be classified into various types, including rheumatoid arthritis, osteoarthritis, gout, etc.
   - Rheumatoid arthritis is an autoimmune disease characterized by chronic joint inflammation, primarily affecting small joints.
   - Features include joint pain, swelling, stiffness, and deformities. It often involves symmetrical joints.
2. Classify meningitis. Describe the pathology and laboratory diagnosis of tuberculosis meningitis:
   - Meningitis can be classified as viral, bacterial, fungal, or parasitic.
   - Tuberculosis meningitis is caused by Mycobacterium tuberculosis.
   - Pathology involves inflammation of the meninges (the protective membranes of the brain and spinal cord).
   - Laboratory diagnosis includes cerebrospinal fluid (CSF) analysis, PCR, and culture for tuberculosis.
3. Define and classify shock. Describe the pathogenesis of septic shock:
   - Shock is classified into various types, including hypovolemic, cardiogenic, obstructive, and distributive shock.
   - Septic shock is a type of distributive shock caused by severe infection.
   - Pathogenesis involves an exaggerated immune response, widespread inflammation, and vasodilation leading to hypotension.
4. Classify bone tumors. Explain the clinical and morphological features of osteosarcoma:
   - Bone tumors are classified as benign or malignant.
   - Osteosarcoma is a malignant bone tumor that primarily affects long bones.

- Clinical features include bone pain and swelling. Morphologically, it shows malignant osteoid formation.

5. Name the vascular lesions of the central nervous system. Describe the etiology, pathology, and complications of any one of them:
   - Vascular lesions include aneurysms, arteriovenous malformations (AVMs), and strokes.
   - For example, an aneurysm can be caused by arterial wall weakness, leading to the ballooning of blood vessels and potentially causing rupture and hemorrhage.
6. Define thrombosis. Discuss the pathogenesis and fate of thrombosis:
   - Thrombosis is the formation of blood clots in blood vessels.
   - Pathogenesis involves Virchow's triad: endothelial injury, blood stasis, and hypercoagulability.
   - The fate of thrombosis can be resolution, organization, or embolization.
7. Classify hemolytic anemias. Describe the pathogenesis and laboratory diagnosis of hereditary spherocytosis:
   - Hemolytic anemias are classified into intrinsic and extrinsic types.
   - Hereditary spherocytosis is an intrinsic hemolytic anemia due to red blood cell membrane defects.
   - Laboratory diagnosis includes osmotic fragility tests and peripheral blood smear examination.
8. Define neoplasia and classify tumors. Differentiate between benign and malignant tumors:
   - Neoplasia is the uncontrolled growth of cells leading to tumor formation.
   - Tumors are classified as benign (non-cancerous) or malignant (cancerous).
   - Benign tumors do not invade nearby tissues or metastasize, while malignant tumors can.
9. Define thrombosis. Discuss the pathogenesis and fate of thrombosis:
   - (Repeat of question 6)
10. Classify meningitis. Describe the pathology and laboratory diagnosis of meningitis:
    - Meningitis can be classified based on causative agents (viral, bacterial, fungal).

- Laboratory diagnosis involves CSF analysis, including cell count, protein, and glucose levels.

11. Rheumatic Heart Disease and Endocarditis Types:

- Rheumatic heart disease is a condition resulting from untreated streptococcal throat infections that can damage heart valves.
- Types of endocarditis:
- Infective Endocarditis: Caused by bacterial or fungal infections affecting the heart valves.
- Non-Infective Endocarditis: Associated with conditions like systemic lupus erythematosus (SLE) or Libman-Sacks endocarditis.

12. Inflammation and Granulomatous Inflammation:

- Inflammation is the body's response to injury or infection, characterized by redness, heat, swelling, pain, and loss of function.
- Granulomatous inflammation is a type of chronic inflammation where immune cells form granulomas (nodular structures) to contain persistent irritants.
- Examples: Tuberculosis or Crohn's disease.

13. Necrosis and Types with Examples:

- Necrosis is cell death due to pathological causes.
- Types:
- Coagulative Necrosis (e.g., myocardial infarction).
- Liquefactive Necrosis (e.g., brain infarction).
- Caseous Necrosis (e.g., tuberculosis granulomas).
- Fat Necrosis (e.g., pancreatitis).
- Gangrenous Necrosis (e.g., dry gangrene in diabetes).
- Necrosis and Types with Examples (repeated):

14. Necrosis is cell death due to pathological causes.

- Types:
- Coagulative Necrosis (e.g., myocardial infarction).
- Liquefactive Necrosis (e.g., brain infarction).
- Caseous Necrosis (e.g., tuberculosis granulomas).
- Fat Necrosis (e.g., pancreatitis).

- Gangrenous Necrosis (e.g., dry gangrene in diabetes).

15. Benign and Malignant Neoplasms:
    - Benign neoplasms are non-cancerous growths, often encapsulated, and do not invade nearby tissues.
    - Malignant neoplasms (cancer) are invasive, can metastasize, and have the potential to be life-threatening.
    - Biological behavior: Benign neoplasms are usually slow-growing and localized, while malignant neoplasms are aggressive and can spread.
16. Types of Necrosis and Gangrene:
    - Types of necrosis: Coagulative, Liquefactive, Caseous, Fat, Gangrenous (dry and wet).
    - Gangrene is the death of a body part often due to lack of blood supply, typically seen in limbs. Dry gangrene is a result of coagulative necrosis, while wet gangrene involves liquefactive necrosis.
17. Types and Pathogenesis of Shock:
    - Types: Hypovolemic, Cardiogenic, Distributive (e.g., septic, anaphylactic), Obstructive.
    - Pathogenesis varies but generally involves inadequate tissue perfusion and oxygen delivery.
18. Inflammation, Acute, and Chronic Inflammation:
    - Inflammation is the body's response to injury or infection.
    - Acute inflammation is rapid, short-term, and characterized by neutrophil infiltration.
    - Chronic inflammation is prolonged, involves lymphocytes and macrophages, and can lead to tissue damage.
19. Wound Healing by Primary Intention:
    - Primary intention healing occurs when wound edges are closely approximated.
    - Factors influencing healing: Nutrition, infection, and systemic diseases like diabetes.
20. Types of Arthritis, Rheumatoid Arthritis:

- Types: Osteoarthritis, Rheumatoid arthritis, Gouty arthritis, Ankylosing spondylitis, Psoriatic arthritis.
- Rheumatoid arthritis: Autoimmune disease, diagnosed through rheumatoid factor and anti-CCP antibodies, characterized by synovial inflammation and joint destruction.

21. Types of Necrosis:

- Coagulative Necrosis (e.g., Myocardial infarction)
- Liquefactive Necrosis (e.g., Brain abscess)
- Caseous Necrosis (e.g., Tuberculosis granuloma)
- Fat Necrosis (e.g., Pancreatitis)
- Gangrenous Necrosis (e.g., Ischemic gangrene)

22. Classification of Bone Tumors:

- Benign Bone Tumors (e.g., Osteoma)
- Malignant Bone Tumors (e.g., Osteosarcoma)

  Osteosarcoma:

- Morphology: Highly aggressive, osteoid-producing tumor.
- Clinical Features: Pain, swelling, and often occurs in the long bones (e.g., Femur).

23. Neoplasia Classification:

- Benign Neoplasm: Non-cancerous, localized growth.
- Malignant Neoplasm (Cancer): Invasive, can spread to distant sites.

24. Thrombus:

- Definition: Blood clot within a blood vessel.
- Etiopathogenesis: Endothelial damage, stasis of blood flow, hypercoagulability.
- Fate: Can dissolve (thrombolysis), organize, or embolize.

25. Osteomyelitis:

- Definition: Infection of bone.
- Etiology: Bacterial (commonly Staphylococcus aureus).
- Pathogenesis: Bacteria enter bone, causing inflammation and bone destruction.
- Pathologic Changes: Acute inflammation, abscess formation, bone necrosis.
- Complications: Septicemia, bone deformities.

26. Osteomyelitis (repeated):
    - Same as above.
27. Edema:
    - Definition: Abnormal accumulation of fluid in tissues.
    - Etiopathogenesis: Increased capillary permeability, reduced colloid osmotic pressure, lymphatic obstruction.
    - Types: Pitting (depression remains after pressing), Non-pitting (no depression).
28. Tuberculosis:
    - Causative Agent: Mycobacterium tuberculosis.
    - Mode of Transmission: Airborne via respiratory droplets.
    - Pathogenesis: Inhaled bacteria multiply in lungs, forming granulomas.
    - Laboratory Diagnosis: Acid-fast staining, culture.
29. Gangrene Classification:
    - Dry Gangrene: Coagulative necrosis, no bacterial infection.
    - Wet Gangrene: Liquefactive necrosis, bacterial infection.
30. Osteomyelitis Etiology and Pathology:
    - Etiology: Bacterial infection (e.g., Staphylococcus aureus).
    - Pathogenesis: Bacteria invade bone, leading to inflammation, abscess formation, and bone destruction.
31. Meningitis:
    - Definition: Inflammation of meninges (protective membranes of the brain/spinal cord).
    - Types: Viral, Bacterial (e.g., Neisseria meningitidis), Fungal.
    - CSF Findings: Increased white blood cells, elevated protein, decreased glucose (bacterial); viral may show lymphocytic pleocytosis.
32. Atherosclerosis:
    - Definition: Buildup of plaque in arteries.
    - Etiopathogenesis: Endothelial damage, cholesterol deposition, inflammation.
    - Complications: Heart attack, stroke.

33. Anemia Classification:

- Microcytic (e.g., Iron-deficiency anemia)
- Normocytic (e.g., Hemolytic anemia)
- Macrocytic (e.g., Megaloblastic anemia)

Iron Deficiency Anemia:

- Clinical Features: Fatigue, pallor, brittle nails.
- Laboratory Diagnosis: Low hemoglobin, low serum iron, high total iron-binding capacity.

34. Necrosis:

- Definition: Cell death due to injury.
- Types: Coagulative, Liquefactive, Caseous, Fat, Gangrenous.

35. (This question is very broad and covers multiple topics. Please ask specific questions for each sub-topic.)

36. Inflammation:

- Definition: Immune response to injury.
- Vascular Events: Vasodilation, increased permeability.
- Cellular Events: Migration of white blood cells.
- Morphology: Redness, heat, swelling, pain.
- Fate: Resolution, chronic inflammation, scarring.

37. Shock:

- Definition: Inadequate tissue perfusion.
- Pathogenesis: Hypovolemic, cardiogenic, distributive (septic/anaphylactic).
- Morphologic Changes: Cellular hypoxia, organ failure.

38. Septic Shock:

- Pathogenesis: Systemic infection leads to widespread inflammation and vasodilation.

39. Wound Healing:

- Primary Union: Clean, simple wounds, minimal scar.
- Secondary Union: Larger wounds, granulation tissue, more scarring.
- Factors Affecting Healing: Nutrition, infection, age.

40. Anemia:

- Definition: Decreased red blood cell count or hemoglobin.
- Classification: Based on cell size (microcytic, normocytic, macrocytic).
- Diagnosis of Iron Deficiency Anemia: Clinical symptoms, low serum iron, high total iron-binding capacity.

41. (This question repeats the topic of inflammation. Refer to answer #36.)

42. Thrombosis:

- Definition: Formation of a blood clot within a blood vessel.
- Pathophysiology: Virchow's triad (endothelial injury, stasis of blood flow, hypercoagulability).
- Fate: Dissolution, organization, embolism.

43. (This question repeats the topic of inflammation. Refer to answer #36.)

44. Neoplasia:

- Definition: Abnormal cell growth.
- Benign vs. Malignant: Localized vs. invasive, non-cancerous vs. cancerous.
- Spread: Direct invasion, lymphatic spread, hematogenous spread.

45. Amyloidosis:

- Definition: Accumulation of abnormal protein (amyloid).
- Pathogenesis: Misfolding and deposition of amyloid proteins.
- Stains: Congo red stain with apple-green birefringence under polarized light.

46. Iron Deficiency Anemia:

- Etiology: Inadequate dietary iron, malabsorption.
- Clinical Features: Fatigue, pallor, brittle nails.
- Lab Diagnosis: Low hemoglobin, low serum iron, high total iron-binding capacity.

47. Congenital Heart Disease:

- Etiopathogenesis: Developmental abnormalities of the heart.
- Types: Cyanotic (e.g., Tetralogy of Fallot), Acyanotic (e.g., Ventricular Septal Defect).

48. (This question repeats the topic of inflammation. Refer to answer #36.)

49. Thrombosis Classification:

- Arterial Thrombosis (e.g., Coronary artery thrombosis)
- Venous Thrombosis (e.g., Deep vein thrombosis)
- Etiopathogenesis:
- Endothelial injury, stasis of blood flow, hypercoagulability.

SHORT ESSAYS

1. Pathogenesis of shock:

- Shock is a state of inadequate tissue perfusion and oxygen delivery.
- Types include hypovolemic, cardiogenic, distributive (septic, anaphylactic, neurogenic), and obstructive.
- Common pathways involve decreased cardiac output, vasodilation, and inflammation.

2. Fracture healing:

- Healing stages: hematoma formation, inflammation, soft callus formation, hard callus formation, remodeling.
- Soft callus is cartilage, hard callus is woven bone.
- Remodeling replaces woven bone with lamellar bone.

3. Megaloblastic anemia:

- Caused by impaired DNA synthesis due to vitamin B12 or folate deficiency.
- Results in large, immature RBCs (megaloblasts).
- Leads to anemia, fatigue, and neurological symptoms.

4. Filariasis:

- Caused by parasitic worms (filariae) transmitted by mosquitoes.
- Leads to lymphatic system damage, causing lymphedema (elephantiasis).
- Diagnosis through blood tests and microscopic examination.

5. Thrombosis:

- Formation of a blood clot (thrombus) in a blood vessel.
- Can lead to embolism and tissue ischemia.

- Risk factors include stasis, endothelial injury, and hypercoagulability.

6. Gangrene:
   - Necrotic tissue due to impaired blood supply.
   - Types include dry gangrene (coagulative necrosis) and wet gangrene (liquefactive necrosis).
   - Requires surgical debridement.
7. Brain Abscess:
   - Localized infection in the brain.
   - Symptoms include headache, fever, focal neurological deficits.
   - Diagnosed by imaging and treated with antibiotics and drainage.
8. Cardiac Edema:
   - Accumulation of fluid in the interstitial spaces of the heart.
   - Can result from heart failure or other cardiac conditions.
   - Presents as swelling, shortness of breath, and chest pain.
9. Leukoplakia:
   - Precancerous white patch on mucous membranes, often in the oral cavity.
   - Associated with tobacco use.
   - Requires biopsy to rule out malignancy.
10. Malignant Melanoma: - Aggressive skin cancer originating in melanocytes. - Risk factors include UV exposure and genetics. - Early detection is crucial for favorable outcomes.
11. Pathogenesis of Gouty Arthritis: - Caused by the deposition of uric acid crystals in joints. - Elevated uric acid levels result from purine metabolism. - Presents with severe joint pain and inflammation.
12. Diabetic Nephropathy: - Kidney damage in diabetes due to chronic hyperglycemia. - Progresses through microalbuminuria to macroalbuminuria and eventually renal failure. - Management includes blood glucose control and ACE inhibitors.
13. Lab Diagnosis of AIDS: - Involves HIV antibody testing, viral load measurement, and CD4 cell count. - ELISA/Western blot are common antibody tests. - Confirmatory testing is crucial.

14. Pathogenesis of Atherosclerosis: - Begins with endothelial damage, followed by LDL cholesterol infiltration and macrophage activation. - Plaque formation narrows arteries, leading to ischemic events. - Risk factors include hypertension, smoking, and hyperlipidemia.

15. Metastasis: - Spread of cancer cells to distant sites via lymphatic or blood vessels. - Involves invasion, intravasation, transport, extravasation, and colonization. - Major factor in cancer mortality.

16. Graves Disease: - Autoimmune disorder causing hyperthyroidism. - Autoantibodies stimulate the thyroid, leading to excess hormone production. - Symptoms include weight loss, tremors, and goiter.

17. Basal Cell Carcinoma: - Common skin cancer originating in basal cells. - Typically slow-growing and rarely metastasizes. - Sun exposure is a primary risk factor.

18. Osteoporosis: - Progressive bone loss and increased fracture risk. - Common in postmenopausal women. - Diagnosis through bone density scans (DEXA).

19. Pathological Calcification: - Abnormal deposition of calcium salts in tissues. - Dystrophic calcification occurs in damaged tissues, while metastatic calcification results from systemic hypercalcemia. - Associated with atherosclerosis and kidney stones.

20. Sickle Cell Anemia: - Genetic disorder causing abnormal hemoglobin (HbS). - RBCs become rigid and assume a sickle shape, leading to pain and anemia. - Hemoglobin electrophoresis confirms diagnosis.

21. Amyloidosis: - Accumulation of abnormal protein (amyloid) in tissues and organs. - Can affect multiple systems, causing organ dysfunction. - Different types exist based on the precursor protein.

22. Granulomatous Inflammation: - Immune response characterized by granuloma formation. - Examples include tuberculosis and sarcoidosis. - Granulomas contain macrophages and T cells.

23. Lepromatous Leprosy: - Severe form of leprosy caused by Mycobacterium leprae. - Extensive skin and nerve damage. - Diagnosis through skin biopsy and acid-fast staining.

24. Opportunistic Infections: - Infections caused by pathogens that exploit weakened immune systems. - Common in HIV/AIDS and immunosuppressed individuals. - Examples include Pneumocystis pneumonia (PCP).

25. Metastasis (Reiterated): - Process of cancer cells spreading to distant sites. - Key step in cancer progression. - Involves invasion, intravasation, transport, extravasation, and colonization.

26. Clinical Features and Lab Diagnosis of Iron Deficiency Anemia: - Clinical features: fatigue, pallor, weakness. - Lab diagnosis: low hemoglobin, low serum iron, high TIBC, low ferritin.

27. Types and Morphological Changes in Shock (Reiterated): - Types: hypovolemic, cardiogenic, distributive, obstructive. - Morphological changes: decreased tissue perfusion, cell injury, organ dysfunction.

28. Clinical Features and Lab Diagnosis of Iron Deficiency Anemia (Reiterated): - Clinical features: fatigue, pallor, weakness. - Lab diagnosis: low hemoglobin, low serum iron, high TIBC, low ferritin.

29. Types and Morphological Changes in Shock (Reiterated): - Types: hypovolemic, cardiogenic, distributive, obstructive. - Morphological changes: decreased tissue perfusion, cell injury, organ dysfunction.

30. Factors Influencing Wound Healing: - Factors include age, nutrition, blood supply, infection, and chronic diseases. - Impaired wound healing can lead to complications.

31. Types of Necrosis with Examples: - Coagulative (e.g., myocardial infarction). - Liquefactive (e.g., brain abscess). - Caseous (e.g., tuberculosis). - Gangrenous (e.g., dry and wet gangrene). - Fat necrosis (e.g., pancreatitis).

32. Type-I Hypersensitivity Reaction: - Immediate hypersensitivity mediated by IgE antibodies. - Examples include allergic rhinitis and anaphylaxis. - Mast cells release histamine in response.

33. Bronchiectasis: - Chronic lung condition characterized by bronchial dilatation and recurrent infections. - Common causes include cystic fibrosis and chronic infections.

34. Pathogenesis of Rheumatoid Arthritis: - Autoimmune disease targeting synovial joints. - Inflammation leads to joint destruction and deformities. - Rheumatoid factor and anti-CCP antibodies are diagnostic markers.

35. Cellular Events in Acute Inflammation: - Vasodilation, increased vascular permeability. - Migration of neutrophils and macrophages. - Phagocytosis and release of inflammatory mediators.

36. Amyloidosis (Reiterated): - Accumulation of abnormal protein (amyloid) in tissues and organs. - Can affect multiple systems, causing organ dysfunction. - Different types exist based on the precursor protein.

37. Cardiac Edema (Reiterated): - Accumulation of fluid in the interstitial spaces of the heart. - Can result from heart failure or other cardiac conditions. - Presents as swelling, shortness of breath, and chest pain.

38. Thrombosis (Reiterated): - Formation of a blood clot (thrombus) in a blood vessel. - Can lead to embolism and tissue ischemia. - Risk factors include stasis, endothelial injury, and hypercoagulability.

39. Lab Diagnosis of AIDS (Reiterated): - Involves HIV antibody testing, viral load measurement, and CD4 cell count. - ELISA/Western blot are common antibody tests. - Confirmatory testing is crucial.

40. Sickle Cell Anemia (Reiterated): - Genetic disorder causing abnormal hemoglobin (HbS). - RBCs become rigid and assume a sickle shape, leading to pain and anemia. - Hemoglobin electrophoresis confirms diagnosis.

41. Metastasis (Reiterated): - Process of cancer cells spreading to distant sites. - Key step in cancer progression. - Involves invasion, intravasation, transport, extravasation, and colonization.

42. CSF Findings in Pyogenic Meningitis and Tubercular Meningitis: - Pyogenic meningitis: Elevated WBC count, high protein, low glucose. - Tubercular meningitis: Elevated lymphocytes, high protein, low glucose.

43. Phagocytosis: - Cellular process where cells engulf and digest foreign particles. - Essential for immune response and removal of pathogens.

44. Meningioma: - Benign tumor of the meninges (brain and spinal cord coverings). - Often asymptomatic but can cause neurological symptoms.

45. Osteomyelitis: - Bone infection usually caused by bacteria (e.g., Staphylococcus aureus). - Presents with pain, fever, and localized swelling.

46. Lab Diagnosis of Iron Deficiency Anemia (Reiterated): - Clinical features: fatigue, pallor, weakness. - Lab diagnosis: low hemoglobin, low serum iron, high TIBC, low ferritin.

47. Kwashiorkor: - Protein-energy malnutrition with edema. - Common in children with inadequate protein intake. - Presents with swollen abdomen and growth stunting.

48. Lepromatous Leprosy (Reiterated): - Severe form of leprosy caused by Mycobacterium leprae. - Extensive skin and nerve damage. - Diagnosis through skin biopsy and acid-fast staining.

49. Pathology of Granulomatous Inflammation: - Immune response characterized by granuloma formation. - Examples include tuberculosis and sarcoidosis. - Granulomas contain macrophages and T cells.

50. Pathogenesis of Septic Shock: - Septic shock is a severe response to infection. - Bacterial toxins and cytokines lead to widespread vasodilation, hypotension, and organ dysfunction.

51. Pathology of Granulomatous Inflammation (Reiterated): - Immune response characterized by granuloma formation. - Examples include tuberculosis and sarcoidosis. - Granulomas contain macrophages and T cells.

52. Pathogenesis of Septic Shock (Reiterated): - Septic shock is a severe response to infection. - Bacterial toxins and cytokines lead to widespread vasodilation, hypotension, and organ dysfunction.

53. Wound Healing: - Process involving hemostasis, inflammation, proliferation, and remodeling. - Affected by factors like age, nutrition, and infection.

54. Sickle Cell Anemia (Reiterated): - Genetic disorder causing abnormal hemoglobin (HbS). - RBCs become rigid and assume a sickle shape, leading to pain and anemia. - Hemoglobin electrophoresis confirms diagnosis.

55. Marasmus and Kwashiorkor: - Marasmus is protein and calorie deficiency, leading to severe wasting. - Kwashiorkor is protein deficiency with edema. - Both are forms of malnutrition.

56. Thrombus Formation: - Involves Virchow's triad: stasis, endothelial injury, hypercoagulability. - Platelet aggregation and fibrin deposition lead to clot formation.

57. Poliomyelitis: - Viral infection causing muscle weakness and paralysis. - Eradicated in many regions through vaccination.

58. Occupational Lung Diseases: - Various lung conditions caused by workplace exposure to toxins (e.g., asbestosis, silicosis).

59. Aetio-Pathogenesis and Diagnosis of Jaundice: - Jaundice results from bilirubin accumulation. - Causes include hemolysis, liver disease, and bile duct obstruction. - Diagnosed through clinical evaluation and blood tests.

60. Classification of Amyloidosis: - Primary (AL), secondary (AA), and hereditary (ATTR) forms. - Based on the type of protein causing amyloid deposition.

61. Osteogenic Sarcoma: - Malignant bone tumor affecting young individuals. - Presents with pain, swelling, and pathological fractures.

62. Renal Calculi: - Kidney stones formed from minerals and salts. - Symptoms include flank pain and hematuria. - Imaging (e.g., CT scan) aids diagnosis.

63. Iron Deficiency Anemia: - Caused by inadequate iron intake, absorption, or blood loss. - Leads to decreased RBC production and anemia. - Common in menstruating women and gastrointestinal disorders.

64. Basal Cell Carcinoma (Reiterated): - Common skin cancer originating in basal cells. - Typically slow-growing and rarely metastasizes. - Sun exposure is a primary risk factor.

65. Pathogenesis and Lab Diagnosis of Pneumonia: - Pneumonia is lung infection, commonly bacterial. - Diagnosis includes clinical evaluation, imaging, and sputum culture.

66. Thrombosis and Embolism: - Thrombosis is clot formation in blood vessels. - Embolism is the dislodgment of a clot that travels to obstruct distant vessels.

67. Pathological Calcification (Reiterated): - Abnormal deposition of calcium salts in tissues. - Dystrophic calcification occurs in damaged tissues, while metastatic calcification results from systemic hypercalcemia. - Associated with atherosclerosis and kidney stones.

68. Pathogenesis of Edema: - Edema results from increased vascular permeability or impaired lymphatic drainage. - Causes include heart failure, kidney disease, and inflammation.

69. Spread of Cancer: - Cancer spreads through direct invasion, lymphatic, or hematogenous routes. - Metastasis is the primary cause of cancer-related deaths.

70. Nephrotic Syndrome: - Kidney disorder characterized by proteinuria, edema, hypoalbuminemia, and hyperlipidemia. - Often caused by glomerular diseases.

71. Hereditary Spherocytosis: - Genetic disorder causing spherical RBCs and hemolysis. - Presents with anemia, jaundice, and splenomegaly.

72. Pathogenesis and Morphology of Alcoholic Liver Disease: - Alcohol abuse leads to liver damage, including fatty liver, hepatitis, and cirrhosis. - Steatosis (fatty liver) is an early stage, progressing to inflammation and fibrosis.

73. Define and Classify Shock (Reiterated): - Shock is inadequate tissue perfusion and oxygen delivery. - Types include hypovolemic, cardiogenic, distributive, and obstructive. - Common pathway involves decreased tissue perfusion and organ dysfunction.

74. Pyogenic Meningitis: - Bacterial infection of the meninges causing inflammation. - Presents with headache, fever, neck stiffness. - Diagnosis through CSF analysis and treatment with antibiotics.

75. Cholelithiasis (Gallstones): - Formation of stones in the gallbladder or bile ducts. - Can cause biliary colic, jaundice, and pancreatitis. - Diagnosis with ultrasound or imaging.

76. Thrombosis (Reiterated): - Formation of a blood clot (thrombus) in a blood vessel. - Can lead to embolism and tissue ischemia. - Risk factors include stasis, endothelial injury, and hypercoagulability.

77. Rheumatic Heart Disease: - Complication of untreated streptococcal pharyngitis (strep throat). - Autoimmune reaction affects heart valves, leading to stenosis or regurgitation.

78. Hemophilia A: - X-linked genetic disorder resulting in deficiency of clotting factor VIII. - Causes prolonged bleeding and easy bruising.

79. Cerebral Infarction: - Ischemic stroke due to impaired blood flow to the brain. - Causes neurological deficits and tissue infarction.

80. Define Inflammation (Reiterated): - Non-specific immune response to tissue injury or infection. - Vascular and cellular events include vasodilation, increased permeability, leukocyte recruitment, and phagocytosis.

81. Inflammation (Reiterated): - Non-specific immune response to tissue injury or infection. - Vascular and cellular events include vasodilation, increased permeability, leukocyte recruitment, and phagocytosis.

82. Wound Healing (Reiterated): - Process involving hemostasis, inflammation, proliferation, and remodeling. - Affected by factors like age, nutrition, and infection.

83. Hemophilia (Reiterated): - X-linked genetic disorder resulting in deficient clotting factors. - Causes prolonged bleeding and easy bruising.

84. Rheumatic Heart Disease (Reiterated): - Complication of untreated streptococcal pharyngitis (strep throat). - Autoimmune reaction affects heart valves, leading to stenosis or regurgitation.

85. Hemophilia A (Reiterated): - X-linked genetic disorder resulting in deficiency of clotting factor VIII. - Causes prolonged bleeding and easy bruising.

86. Infarction: - Tissue death due to lack of blood supply. - Commonly seen in myocardial infarction (heart attack) and cerebral infarction (stroke).

87. Hepatitis: - Inflammation of the liver, often caused by viral infections (e.g., Hepatitis A, B, C). - Presents with jaundice, fatigue, and liver dysfunction.

88. Myxedema: - Hypothyroidism characterized by mucinous deposits in skin and other tissues. - Causes fatigue, cold intolerance, and weight gain.

89. Ischemic Heart Disease (Reiterated): - Coronary artery disease leading to reduced blood supply to the heart. - Risk factors include atherosclerosis, hypertension, and smoking. - Diagnosis through ECG, stress tests, and angiography.

90. Define and Classify Shock (Reiterated): - Shock is inadequate tissue perfusion and oxygen delivery. - Types include hypovolemic, cardiogenic, distributive, and obstructive. - Common pathway involves decreased tissue perfusion and organ dysfunction.

91. Pathogenesis and Complications of Shock (Reiterated): - Shock leads to inadequate tissue perfusion and oxygen delivery. - Complications include organ failure, multiple organ dysfunction syndrome (MODS), and death.

92. Necrosis and Gangrene with Types: - Necrosis is cell death due to irreversible injury. - Types include coagulative, liquefactive, caseous, gangrenous, and fat necrosis. - Gangrene is necrotic tissue due to impaired blood supply.

93. CSF Findings in Pyogenic Meningitis and Tubercular Meningitis (Reiterated): - Pyogenic meningitis: Elevated WBC count, high protein, low glucose. - Tubercular meningitis: Elevated lymphocytes, high protein, low glucose.

94. Pyogenic Meningitis (Reiterated): - Bacterial infection of the meninges causing inflammation. - Presents with headache, fever, neck stiffness. - Diagnosis through CSF analysis and treatment with antibiotics.

95. Metaplasia with Examples: - Metaplasia is the transformation of one cell type into another. - Example: Barrett's esophagus (squamous to columnar epithelium).

96. Classification and Microscopy of Leprosy: - Leprosy classified as tuberculoid or lepromatous. - Microscopy reveals acid-fast bacilli (Mycobacterium leprae).

97. Morphology of Osteosarcoma: - Osteosarcoma is a malignant bone tumor. - Characterized by osteoid production and atypical cells. - Presents with pain and swelling.

98. Hashimoto's Thyroiditis: - Autoimmune thyroid disease causing hypothyroidism. - Antibodies attack the thyroid gland. - Presents with goiter and hypothyroid symptoms.

99. Define Necrosis and Types with Examples (Reiterated): - Necrosis is cell death due to irreversible injury. - Types include coagulative, liquefactive, caseous, gangrenous, and fat necrosis. - Gangrene is necrotic tissue due to impaired blood supply.

100. Define Anemia and Discuss Etiopathogenesis in Iron Deficiency Anemia: - Anemia is a condition characterized by a decrease in the number of red blood cells or a decrease in the amount of hemoglobin. - Etiopathogenesis of iron deficiency anemia involves inadequate iron intake, absorption, or blood loss.

101. Causes of Iron Deficiency Anemia: - Chronic blood loss (e.g., gastrointestinal bleeding). - Inadequate dietary iron intake. - Poor iron absorption (e.g., celiac disease). - Increased iron demands (e.g., pregnancy).

102. Thrombosis (Reiterated): - Formation of a blood clot (thrombus) in a blood vessel. - Can lead to embolism and tissue ischemia. - Risk factors include stasis, endothelial injury, and hypercoagulability.

103. Pathological Calcification (Reiterated): - Abnormal deposition of calcium salts in tissues. - Dystrophic calcification occurs in damaged tissues, while metastatic calcification results from systemic hypercalcemia. - Associated with atherosclerosis and kidney stones.

104. Factors Affecting Healing: - Factors include age, nutrition, blood supply, infection, and chronic diseases. - Impaired wound healing can lead to complications.

105. Rickets: - Softening and weakening of bones in children due to vitamin D deficiency. - Leads to bone deformities and growth problems. - Corrected with vitamin D supplementation.

106. Pathogenesis of Thrombus Formation (Reiterated): - Involves Virchow's triad: stasis, endothelial injury, hypercoagulability. - Platelet aggregation and fibrin deposition lead to clot formation.

107. Types of Pathological Calcification in Detail: - Dystrophic calcification occurs in damaged tissues with normal calcium levels. - Metastatic calcification occurs in normal tissues due to hypercalcemia.

108. Define Edema and Discuss Etiopathogenesis: - Edema is the accumulation of excess fluid in the interstitial spaces. - Causes include increased vascular permeability or impaired lymphatic drainage.

109. Define and Classify Neoplasia: - Neoplasia is abnormal cell growth leading to tumor formation. - Classified as benign (non-cancerous) or malignant (cancerous). - Malignant tumors can invade nearby tissues and metastasize.

110. Tumors: - Abnormal masses of tissue caused by uncontrolled cell growth. - Benign tumors are non-cancerous and do not invade nearby tissues. - Malignant tumors are cancerous and can metastasize.

111. Tuberculosis: - Infectious disease caused by Mycobacterium tuberculosis. - Affects the lungs primarily but can involve other organs. - Diagnosis through skin test, sputum culture, or chest X-ray.

112. Anaemias and Types: - Anemia is a condition characterized by a decrease in the number of red blood cells or a decrease in the amount of hemoglobin. - Types include iron deficiency anemia, megaloblastic anemia, and hemolytic anemia.

113. Malignant Neoplasia (Reiterated): - Malignant neoplasia refers to cancerous growths. - Characterized by uncontrolled cell proliferation, invasion, and potential metastasis. - Diagnosed through biopsy and imaging.

114. Malaria: - Infectious disease caused by Plasmodium parasites transmitted by mosquitoes. - Symptoms include fever, chills, and anemia. - Diagnosis through blood smears.

115. Parkinsonism: - Neurological disorder with symptoms like tremors, rigidity, and bradykinesia. - Mainly associated with Parkinson's disease. - Due to dopamine deficiency in the brain.

116. Define and Classify Pneumonia (Reiterated): - Pneumonia is lung infection, commonly bacterial. - Classified as community-acquired or hospital-acquired. - Symptoms include fever, cough, and chest pain.

117. Lobar Pneumonia: - A type of pneumonia affecting a single lobe of the lung. - Often caused by Streptococcus pneumoniae. - Presents with consolidation of the affected lobe.

118. Define Anemia and Classify Hemolytic Anemia: - Anemia is a condition characterized by a decrease in the number of red blood cells or a decrease in the amount of hemoglobin. - Hemolytic anemia results from premature destruction of red blood cells. - Types include autoimmune hemolytic anemia and sickle cell anemia.

119. Laboratory Diagnosis of Hemolytic Anemia: - Diagnosis includes peripheral blood smear, reticulocyte count, and Coombs test. - These tests help identify the underlying cause and type of hemolytic anemia.

120. Healing of Fractured Bone in Long Bones: - Fracture healing involves hematoma formation, inflammation, soft callus formation, hard callus formation, and remodeling. - Osteoblasts and osteoclasts play key roles in bone repair. - Long bones undergo complete healing over time.

121. Metastasis (Reiterated): - Process of cancer cells spreading to distant sites. - Key step in cancer progression. - Involves invasion, intravasation, transport, extravasation, and colonization.

122. Types of Necrosis (Reiterated): - Coagulative (e.g., myocardial infarction). - Liquefactive (e.g., brain abscess). - Caseous (e.g., tuberculosis). - Gangrenous (e.g., dry and wet gangrene). - Fat necrosis (e.g., pancreatitis).

123. Thalassemia: - Genetic blood disorder causing reduced hemoglobin production. - Classified as alpha or beta thalassemia. - Results in anemia, fatigue, and other complications.

124. Embolism (Reiterated): - Dislodged material (embolus) travels through the bloodstream and obstructs vessels. - Types include pulmonary embolism, fat embolism, and air embolism.

125. Wound Healing (Reiterated): - Process involving hemostasis, inflammation, proliferation, and remodeling. - Affected by factors like age, nutrition, and infection.

126. Cirrhosis: - Chronic liver disease characterized by fibrosis and scarring. - Often caused by alcohol abuse, viral hepatitis, or fatty liver disease. - Leads to liver dysfunction and complications.

127. Pathogenesis and Morphology of Alcoholic Liver Disease (Reiterated): - Alcohol abuse leads to liver damage, including fatty liver, hepatitis, and cirrhosis. - Steatosis (fatty liver) is an early stage, progressing to inflammation and fibrosis.

128. Pathogenesis of Septic Shock (Reiterated): - Septic shock is a severe response to infection. - Bacterial toxins and cytokines lead to widespread vasodilation, hypotension, and organ dysfunction.

129. Vascular and Cellular Events in Acute Inflammation (Reiterated): - Acute inflammation involves vasodilation, increased vascular permeability, leukocyte recruitment, and phagocytosis.

130. Wound Healing (Reiterated): - Process involving hemostasis, inflammation, proliferation, and remodeling. - Affected by factors like age, nutrition, and infection.

131. Neonatal Jaundice: - Jaundice in newborns due to elevated bilirubin levels. - Physiological jaundice is common and resolves on its own. - Pathological jaundice may indicate underlying issues.

132. Glomerular Nephritis: - Inflammation of the glomeruli in the kidney. - Can result from infections, autoimmune diseases, or other causes. - Leads to proteinuria and hematuria.

133. Marasmus: - Severe protein-energy malnutrition leading to wasting and emaciation. - Common in impoverished regions with inadequate food intake.

134. Define Pneumonia and Types (Reiterated): - Pneumonia is lung infection, commonly bacterial. - Classified as community-acquired or hospital-acquired. - Symptoms include fever, cough, and chest pain.

135. Leukoplakia: - White, thickened patches in the oral mucosa. - May be a precancerous condition. - Associated with tobacco and alcohol use.

136. Healing of Fractured Bone (Reiterated): - Fracture healing involves hematoma formation, inflammation, soft callus formation, hard callus formation, and remodeling. - Osteoblasts and osteoclasts play key roles in bone repair. - Long bones undergo complete healing over time.

137. Define Neoplasm and Differences Between Benign and Malignant Neoplasms (Reiterated): - Neoplasm is abnormal cell growth leading to tumor formation. - Benign tumors are non-cancerous and do not invade nearby tissues. - Malignant tumors are cancerous and can metastasize.

138. Define Gangrene, Classify, and Explain Gas Gangrene: - Gangrene is necrotic tissue due to impaired blood supply. - Types include dry gangrene (coagulative necrosis) and wet gangrene (liquefactive necrosis). - Gas gangrene is caused by Clostridium bacteria, producing gas and spreading rapidly.

139. Define Embolism and Explain Fat Embolism in Detail: - Embolism is the dislodgment of material (embolus) that obstructs blood vessels. - Fat embolism occurs when fat globules enter the bloodstream, often due to bone fractures. - Can lead to respiratory distress and neurological symptoms.

140. Megaloblastic Anemia (Reiterated): - Anemia characterized by large, immature RBCs. - Typically caused by vitamin B12 or folate deficiency. - Diagnosed through blood tests and bone marrow examination.

141. Gangrene (Reiterated): - Necrotic tissue due to impaired blood supply. - Types include dry gangrene (coagulative necrosis) and wet gangrene (liquefactive necrosis). - Gas gangrene is a severe form caused by Clostridium bacteria.

142. Rheumatic Heart Disease (Reiterated): - Complication of untreated streptococcal pharyngitis (strep throat). - Autoimmune reaction affects heart valves, leading to stenosis or regurgitation.

143. Amyloidosis (Reiterated): - Accumulation of abnormal protein (amyloid) in tissues and organs. - Can affect multiple systems, causing organ dysfunction. - Different types exist based on the precursor protein.

144. Aneurysm: - Abnormal dilation of a blood vessel wall. - Can rupture, causing life-threatening bleeding. - Commonly occurs in the aorta and cerebral arteries.

145. Describe Necrosis with Types (Reiterated): - Necrosis is cell death due to irreversible injury. - Types include coagulative, liquefactive, caseous, gangrenous, and fat necrosis. - Gangrene is necrotic tissue due to impaired blood supply.

146. Define Embolism and Mention Different Types (Reiterated): - Embolism is the dislodgment of material (embolus) that obstructs blood vessels. - Types include pulmonary embolism, fat embolism, and air embolism.

147. Define Repair and Explain Wound Healing by Primary Union: - Repair is the body's response to tissue injury, aiming to restore normal structure and function. - Wound healing by primary union occurs in clean, uninfected wounds with minimal tissue loss. - Involves minimal inflammation, fibrin clot, and rapid closure with minimal scarring.

148. Define Shock, Classify, and Explain the Etiopathogenesis of Cardiogenic Shock: - Shock is inadequate tissue perfusion and oxygen delivery. - Cardiogenic shock results from heart failure. - Etiopathogenesis involves reduced cardiac output and poor tissue perfusion.

149. Diabetes Mellitus: - Chronic metabolic disorder characterized by high blood sugar levels. - Types include Type 1 (autoimmune) and Type 2 (insulin resistance). - Leads to various complications, including neuropathy and retinopathy.

150. Tumor (Reiterated): - Abnormal mass of tissue resulting from uncontrolled cell growth. - Can be benign or malignant. - Malignant tumors can invade nearby tissues and metastasize.

151. Osteomyelitis (Reiterated): - Bone infection usually caused by bacteria (e.g., Staphylococcus aureus). - Presents with fever, bone pain, and swelling. - Diagnosis through imaging and culture.

152. Pathological Calcification (Reiterated): - Abnormal deposition of calcium salts in tissues. - Dystrophic calcification occurs in damaged tissues, while metastatic calcification results from systemic hypercalcemia. - Associated with atherosclerosis and kidney stones.

153. Jaundice (Reiterated): - Yellowing of the skin and mucous membranes due to elevated bilirubin levels. - Can result from liver disease, hemolysis, or bile duct obstruction.

154. Pathological Calcification (Reiterated): - Abnormal deposition of calcium salts in tissues. - Dystrophic calcification occurs in damaged tissues, while metastatic calcification results from systemic hypercalcemia. - Associated with atherosclerosis and kidney stones.

155. Pathogenesis and Lab Diagnosis of Pulmonary Tuberculosis (Reiterated): - Infectious disease caused by Mycobacterium tuberculosis. - Diagnosis through sputum culture and acid-fast staining. - Treatment involves antibiotics like isoniazid and rifampin.

156. Osteoarthritis: - Degenerative joint disease characterized by cartilage breakdown and bone spurs. - Common in weight-bearing joints. - Leads to pain and limited joint mobility.

157. Define Pneumonia:

- Pneumonia is an inflammatory lung condition characterized by infection or inflammation of the air sacs (alveoli) in one or both lungs. It leads to the accumulation of fluid and pus within the air sacs, impairing normal gas exchange and causing a range of respiratory symptoms.

  Lobar Pneumonia - Explanation:

  Etiology: Lobar pneumonia is typically caused by bacteria, most commonly Streptococcus pneumoniae, but other pathogens like Haemophilus influenzae or Klebsiella pneumoniae can also be responsible.

  Pathogenesis:

- The infection begins with the inhalation of infectious droplets containing the bacteria.
- The bacteria initially colonize the upper respiratory tract but can descend into the lower respiratory tract under certain conditions.

- Once in the alveoli, the bacteria multiply rapidly, triggering an inflammatory response

SHORT ANSWERS

1. Atrophy
   - Reduction in cell size or tissue due to decreased workload or hormonal changes.
2. Necrosis
   - A form of cell death resulting from external factors, often associated with inflammation. Types include coagulative, liquefactive, and caseous necrosis.
3. Asbestosis
   - A lung disease caused by asbestos exposure, leading to fibrosis and impaired lung function.
4. Ulcer
   - A discontinuity or breach in the skin or mucous membrane, often with underlying tissue loss.
5. Tuberculosis Meningitis
   - An infection of the meninges (membranes covering the brain and spinal cord) caused by Mycobacterium tuberculosis.
6. Hypertrophy
   - Increase in cell size and tissue mass due to increased workload or hormonal stimulation.
7. Scurvy
   - A nutritional deficiency disease caused by a lack of vitamin C, leading to weakness, anemia, and gum disease.
8. Sickle Cell Anemia
   - A genetic blood disorder characterized by abnormally shaped red blood cells, leading to pain, anemia, and organ damage.
9. Gastritis

- Inflammation of the stomach lining, often caused by infection, alcohol, or NSAID use.

10. Alcoholic Cirrhosis
    - Liver damage and scarring (cirrhosis) due to chronic alcohol abuse.
11. CSF Findings in Pyogenic Meningitis
    - Increased white blood cells, elevated protein levels, and decreased glucose levels in cerebrospinal fluid.
12. Causes of Hematuria
    - Kidney stones, urinary tract infections, trauma, and bladder cancer.
13. Cardinal Signs of Inflammation
    - Redness, heat, swelling, pain, and loss of function.
14. Fallot's Tetralogy Components
    - Four heart defects: ventricular septal defect, pulmonary stenosis, overriding aorta, and right ventricular hypertrophy.
15. Necrosis
    - Cell death due to external factors, including coagulative, liquefactive, and caseous necrosis.
16. Marasmus
    - A severe form of protein-energy malnutrition characterized by muscle wasting and extreme weight loss.
17. Population at Risk of Developing AIDS
    - Individuals engaged in unprotected sex, intravenous drug users, and those receiving contaminated blood transfusions.
18. Types of Gangrene
    - Dry gangrene (due to reduced blood flow), wet gangrene (infection in necrotic tissue), and gas gangrene (caused by bacterial infection).
19. Osteomyelitis

- An infection of the bone, often caused by bacteria, resulting in bone pain, fever, and swelling.

20. Transfusion Transmitted Infections
    - HIV, hepatitis B, hepatitis C, and syphilis can be transmitted through blood transfusions.
21. Vitamin D Deficiency
    - A condition resulting from insufficient vitamin D intake, leading to weakened bones and increased risk of fractures.
22. Leukemoid Reaction
    - A reactive increase in white blood cell count, often in response to severe infection or inflammation.
23. Endocarditis
    - Inflammation of the inner lining of the heart, often caused by bacterial infection.
24. Pleomorphic Adenoma
    - A benign salivary gland tumor characterized by mixed cell types.
25. Basal Cell Carcinoma
    - A common skin cancer arising from basal cells in the epidermis.
26. Gross and Microscopy of Ulcerative Colitis
    - Grossly: Ulceration and inflammation of the colonic mucosa. Microscopy: Crypt abscesses, inflammation, and loss of normal architecture.
27. Gumma
    - A soft, tumor-like lesion seen in tertiary syphilis.
28. Components of Fallot's Tetralogy
    - Ventricular septal defect, pulmonary stenosis, overriding aorta, and right ventricular hypertrophy.
29. Bronchiectasis
    - A lung condition characterized by damaged and widened airways, leading to recurrent infections and coughing.

30. Complications of Diabetes Mellitus
    - Includes neuropathy, retinopathy, nephropathy, cardiovascular disease, and foot ulcers.
31. Ashoff's Body
    - Found in rheumatic fever, they are nodules of immune cells in the heart's connective tissue.
32. Stages of Pneumonia
    - Consolidation, red hepatization, gray hepatization, and resolution.
33. Multi Nodular Goiter
    - An enlargement of the thyroid gland with multiple nodules, often caused by iodine deficiency.
34. Poliomyelitis
    - A viral infection causing muscle weakness and paralysis.
35. Causes of Peptic Ulcer
    - Helicobacter pylori infection, NSAID use, smoking, and excessive alcohol consumption.
36. Gohn's Complex
    - A term used to describe tuberculosis infection in the lymph nodes and other organs.
37. Aschoff's Body
    - Found in rheumatic fever, they are nodules of immune cells in the heart's connective tissue.
38. Sequestrum
    - A piece of dead bone that has separated from healthy bone, often seen in osteomyelitis.
39. Laboratory Diagnosis of Megaloblastic Anemia
    - Blood tests revealing macrocytic red blood cells, low vitamin B12 or folate levels, and hypersegmented neutrophils.
40. CSF Findings in Tuberculous Meningitis

- Elevated white blood cells, increased protein levels, and decreased glucose levels in cerebrospinal fluid.

41. Types of Gangrene
    - Dry, wet, and gas gangrene.
42. Causes of Hematuria
    - Kidney stones, urinary tract infections, trauma, and bladder cancer.
43. Alcoholic Cirrhosis
    - Liver damage and scarring (cirrhosis) due to chronic alcohol abuse.
44. Ulcer
    - A discontinuity or breach in the skin or mucous membrane, often with underlying tissue loss.
45. Hashimoto's Thyroiditis
    - An autoimmune thyroid disease leading to hypothyroidism.
46. Involucrum
    - A layer of new bone formation seen in chronic osteomyelitis.
47. Barrett's Esophagus
    - A condition where the esophageal lining changes, increasing the risk of esophageal cancer.
48. Edema
    - Accumulation of excess fluid in tissues. Types include peripheral, pulmonary, and cerebral edema.
49. Hyaline Change
    - A type of cellular change seen in various tissues, characterized by a glassy, eosinophilic appearance.
50. Warthin Tumor
    - A benign salivary gland tumor, often with lymphoid tissue.
51. Nephrotic Syndrome

- A kidney disorder characterized by proteinuria, edema, hypoalbuminemia, and hyperlipidemia.

52. Cysticercosis
    - A parasitic infection caused by the larval form of Taenia solium (pork tapeworm).
53. Gout
    - A type of arthritis caused by the deposition of uric acid crystals in joints.
54. Hashimoto's Thyroiditis
    - An autoimmune thyroid disease leading to hypothyroidism.
55. Gout
    - A type of arthritis caused by the deposition of uric acid crystals in joints.
56. Lepromatous Leprosy
    - A severe form of leprosy characterized by widespread skin lesions and nerve damage.
57. Neuroblastoma
    - A childhood cancer originating in nerve tissue.
58. Sickle Cell Anemia
    - A genetic blood disorder characterized by abnormally shaped red blood cells, leading to pain, anemia, and organ damage.
59. Alzheimer's Disease
    - A progressive neurodegenerative disease causing memory loss and cognitive decline.
60. Gout
    - A type of arthritis caused by the deposition of uric acid crystals in joints.
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64. Alzheimer's Disease

    - A progressive neurodegenerative disease causing memory loss and cognitive decline.

65. Stages of Lobar Pneumonia

    - Congestion, red hepatization, gray hepatization, and resolution.

66. Differences Between Hyperplasia and Hypertrophy

    - Hyperplasia involves an increase in the number of cells, while hypertrophy involves an increase in cell size.
    - Hyperplasia often occurs in response to a stimulus, while hypertrophy is due to increased workload.

67. Atrophy

    - Reduction in cell size or tissue due to decreased workload or hormonal changes.

68. Classify Ischemic Heart Disease

    - It can be classified as stable angina, unstable angina, and myocardial infarction.

69. Syringomyelia

    - A condition characterized by the development of fluid-filled cavities (syrinx) within the spinal cord.

70. Causes of Lymph Node Enlargement

    - Infection, malignancy, autoimmune diseases, and reactive hyperplasia.

71. Iron Deficiency Anemia

    - A condition resulting from insufficient iron intake or absorption, leading to reduced red blood cell production.

72. Protein Energy Malnutrition

- A condition resulting from inadequate intake of protein and calories, leading to growth failure and muscle wasting.

73. Polyps
    - Abnormal growths of tissue that can occur in various organs, including the colon and uterus.
74. Iodine Deficiency Goiter
    - Enlargement of the thyroid gland due to insufficient dietary iodine.
75. Granulation Tissue
    - A healing tissue with abundant blood vessels and fibroblasts, often seen in wound healing.
76. Marasmus and Kwashiorkor
    - Marasmus is severe protein and calorie deficiency, resulting in muscle wasting and emaciation.
    - Kwashiorkor is protein deficiency with edema and skin changes but with some calorie intake.
77. Primary Complex
    - In tuberculosis, it refers to the initial infection of the lung and lymph nodes.
78. Chemical Carcinogens
    - Chemical substances that can cause cancer, such as tobacco smoke and certain industrial chemicals.
79. Causes of Lymph Node Enlargement
    - Infection, malignancy, autoimmune diseases, and reactive hyperplasia.
80. Edema
    - Accumulation of excess fluid in tissues. Types include peripheral, pulmonary, and cerebral edema.
81. Neoplasm Classification
    - Benign neoplasms are non-cancerous growths, while malignant neoplasms are cancerous and can invade nearby tissues.

82. Aneurysm

- A weakening and bulging of an artery wall, which can rupture and cause serious bleeding.

83. Myocardial Infarction

- Heart attack, which occurs when blood flow to the heart muscle is blocked, leading to tissue damage.

84. Reversible Cell Injury

- Cellular changes that can be reversed, such as cellular swelling and fatty changes.

85. Stages of Lobar Pneumonia

- Congestion, red hepatization, gray hepatization, and resolution.

86. Neoplasm (Tumor)

- Abnormal growth of cells.
- Classified as benign or malignant.

87. Aneurysm

- Weakening and bulging of a blood vessel.
- Types: Aortic, cerebral, and peripheral.

88. Myocardial infarction (Heart Attack)

- Death of heart muscle tissue due to blocked blood flow.

89. Reversible cell injury

- Cellular damage that can be repaired.
- Examples: Cellular swelling, fatty change.

90. Stages of lobar pneumonia

- Congestion, red hepatization, gray hepatization, resolution.

91. Types of aneurysms

- Saccular, fusiform, dissecting.

92. Cirrhosis of the liver

- Chronic liver disease with scarring.

- Common causes: Alcohol, viral hepatitis.

93. Skeletal features of rickets
    - Bowlegs, knock-knees, delayed growth.
94. Hashimoto thyroiditis
    - Autoimmune thyroid disease.
    - Leads to hypothyroidism.
95. Graves' disease of thyroid
    - Autoimmune disorder.
    - Results in hyperthyroidism.
96. Scurvy
    - Vitamin C deficiency.
    - Symptoms: Gum bleeding, weakness.
97. Diabetic neuropathy
    - Nerve damage due to diabetes.
    - Causes numbness, pain.
98. Factors influencing wound healing
    - Nutrition, infection, diabetes, age.
99. Routes of transmission of HIV infection
    - Sexual contact, blood transfusion, mother-to-child.
100. Granuloma - Mass of immune cells. - Common in tuberculosis.
101. Tuberculoid leprosy - A form of leprosy with skin lesions. - Minimal systemic involvement.
102. Osteoarthritis - Degenerative joint disease. - Cartilage wears down.
103. Features of SLE (Systemic Lupus Erythematosus) - Butterfly rash, joint pain, kidney involvement.
104. Etiology of peptic ulcer - H. pylori infection, NSAID use.
105. Edema - Excess fluid accumulation in tissues. - Types: Peripheral, pulmonary, cerebral.

106. Obesity - Excessive body fat. - Risk factor for various diseases.
107. Tuberculous meningitis - Meningitis caused by tuberculosis.
108. Gouty arthritis - Inflammatory joint condition. - Due to uric acid crystals.
109. Iron deficiency anemia - Lack of iron in the body. - Causes reduced red blood cells.
110. Signs of acute inflammation - Redness, swelling, heat, pain.
111. Granuloma - Mass of immune cells. - Common in tuberculosis.
112. Components of Fallot's tetralogy - Ventricular septal defect, overriding aorta, pulmonary stenosis, right ventricular hypertrophy.
113. Components of diabetes mellitus - Elevated blood sugar, insulin resistance, impaired insulin production, polyuria.
114. Metastatic calcification - Abnormal calcium deposition in tissues.
115. Bronchitis - Inflammation of bronchial tubes.
116. Types of cirrhosis - Alcoholic, viral, non-alcoholic fatty liver disease.
117. Complications of diabetes mellitus - Neuropathy, retinopathy, nephropathy, cardiovascular disease.
118. Types of hypersensitivity reactions - Type I (immediate), Type II (cytotoxic), Type III (immune complex), Type IV (delayed).
119. Atrophy - Shrinkage of cells or tissues.
120. Alcoholic liver disease - Liver damage due to alcohol consumption.
121. Bronchiectasis - Abnormal dilation of bronchial tubes.
122. HIV - Human Immunodeficiency Virus.
123. Carcinogenesis - Process of cancer development.
124. Wound healing - Repair process of damaged tissue.
125. Types of congenital heart diseases - Tetralogy of Fallot, atrial septal defect, ventricular septal defect, coarctation of the aorta.
126. Type IV hypersensitivity reaction - Delayed-type hypersensitivity mediated by T cells.

127. Conditions that cause COPD - Smoking, long-term exposure to irritants, genetic factors.
128. Osteoporosis - Decreased bone density and strength.
129. Types of emphysema - Centriacinar, panacinar, paraseptal.
130. Laboratory diagnosis of beta thalassemia - Hemoglobin electrophoresis, DNA analysis, complete blood count.
131. Cardinal signs of inflammation - Redness, swelling, heat, pain.
132. Examples of congenital heart diseases - Tetralogy of Fallot, atrial septal defect, ventricular septal defect, transposition of great vessels.
133. Bleeding disorders - Hemophilia, von Willebrand disease, thrombocytopenia.
134. Thromboembolism - Formation of a blood clot that travels through the bloodstream.
135. Tetralogy of Fallot - Congenital heart defect with four abnormalities.
136. Tumor spread - Local invasion, lymphatic spread, hematogenous spread.
137. Meningitis - Inflammation of the meninges (brain and spinal cord covering).
138. Osteoarthritis - Degenerative joint disease.
139. Bronchiectasis - Abnormal dilation of bronchial tubes.
140. Peptic ulcer - Ulcer in the stomach or small intestine.
141. Protein energy malnutrition - Insufficient protein and calorie intake.
142. Vitamin D Deficiency - Lack of vitamin D in the body.
143. Hypersensitivity type 1 reaction:
    - Also known as immediate hypersensitivity or allergic reaction.
    - Involves IgE-mediated immune responses to allergens.
    - Symptoms include hives, itching, sneezing, and anaphylaxis.
144. Types of embolism:
    - Thromboembolism (blood clot).
    - Fat embolism (fat droplets in the bloodstream).
    - Air embolism (air bubbles in blood vessels).
    - Septic embolism (infectious material).

145. Jaundice:
    - Yellowing of the skin and eyes due to elevated bilirubin levels.
    - Can result from liver disease, hemolysis, or bile duct obstruction.
146. Atrophy:
    - Decrease in cell size or tissue volume.
    - Common in disuse, denervation, or aging.
147. Osteoporosis:
    - A bone disorder characterized by reduced bone density.
    - Increases the risk of fractures.
148. Ghon’s complex:
    - A lung lesion seen in tuberculosis.
    - Consists of a primary lesion and associated lymph node involvement.
149. Parkinsonism:
    - Group of neurological disorders with symptoms like those of Parkinson's disease.
    - Includes tremors, bradykinesia, and rigidity.
150. Pyogenic meningitis:
    - Bacterial infection of the membranes surrounding the brain and spinal cord.
    - Can be life-threatening.
151. Complications of diabetes mellitus:
    - Include neuropathy, nephropathy, retinopathy, and cardiovascular issues.
152. Neurological changes in syphilis:
    - Can lead to dementia, tabes dorsalis, and general paresis.
153. Occupational lung diseases:
    - Result from exposure to occupational hazards, e.g., asbestosis or silicosis.
154. Atherosclerosis:
    - The buildup of plaque in arteries.
    - Can lead to heart attacks and strokes.
155. Hemophilia:

- A genetic disorder causing impaired blood clotting.
- Types A and B are the most common.

156. Hashimoto's thyroiditis:
    - Autoimmune thyroid disease causing hypothyroidism.
157. Rheumatoid arthritis:
    - Autoimmune joint disease causing pain and inflammation.
158. Alcoholic liver disease:
    - Liver damage due to excessive alcohol consumption.
159. Asthma:
    - Chronic respiratory condition with airway inflammation and bronchoconstriction.
160. Coagulopathies:
    - Disorders of blood clotting, e.g., hemophilia or DIC.
161. Autolysis:
    - Self-digestion of cells after death.
162. Osteomalacia:
    - Softening of bones due to vitamin D deficiency.
163. Scleroderma:
    - Autoimmune disease leading to skin and connective tissue thickening.
164. Gouty arthritis:
    - Joint inflammation due to uric acid crystals.
165. Benign vs malignant neoplasm:
    - Benign tumors are non-cancerous, while malignant tumors are cancerous and can invade nearby tissues.
166. Bronchial asthma:
    - Chronic respiratory condition characterized by recurrent bronchoconstriction.
167. Obesity:
    - Excessive body fat accumulation.

168. Gastric ulcer:
    - Open sore in the stomach lining.
169. Necrosis:
    - Cell death due to injury or disease.
    - Types include coagulative, liquefactive, and caseous necrosis.
170. Hypertrophy and hyperplasia:
    - Hypertrophy is an increase in cell size, while hyperplasia is an increase in cell number.
171. Type 1 hypersensitivity reaction:
    - IgE-mediated allergic reaction.
172. Lobar pneumonia:
    - Infection and inflammation of an entire lobe of the lung.
173. Classify leprosy:
    - Classified as paucibacillary or multibacillary forms.
174. Osteomyelitis:
    - Infection of bone and bone marrow.
175. Leukemoid reaction:
    - An excessive white blood cell response, often due to infections or cancers.
176. Rickets:
    - Childhood bone disease caused by vitamin D deficiency.
177. Thyroiditis:
    - Inflammation of the thyroid gland.
178. Leukoplakia:
    - White patches in the mouth, often precancerous.
179. Chemical carcinogenesis:
    - The process of cancer development due to exposure to chemicals or carcinogens.
180. Alzheimer's disease:

- Neurodegenerative disorder causing memory loss and cognitive decline.

181. Vitamin D deficiency:
    - Insufficient levels of vitamin D, leading to bone and immune system problems.
182. Hashimoto's thyroiditis:
    - Autoimmune thyroid disease causing hypothyroidism.
183. Sequestrum:
    - A piece of dead bone within a living bone.
184. Lobar pneumonia:
    - Infection and inflammation of an entire lobe of the lung.
185. Gout:
    - Inflammatory joint disease due to uric acid crystals.
186. Rickets:
    - Childhood bone disease caused by vitamin D deficiency.
187. Rheumatic heart disease:
    - Heart disease resulting from untreated strep throat.
188. Diabetic nephropathy:
    - Kidney damage due to diabetes.
189. Amyloidosis:
    - Accumulation of abnormal proteins (amyloids) in tissues.
190. Atrial septal defect:
    - A congenital heart defect involving a hole in the atrial septum.
191. Ulcer:
    - An open sore on the skin or mucous membranes.
192. Atrophy:
    - Decrease in cell size or tissue volume.
193. Gangrene:

- Tissue death often due to lack of blood supply.

194. Vitamin D deficiency:
    - Insufficient levels of vitamin D, leading to bone and immune system problems.
195. Define necrosis. What are the types of necrosis:
    - Necrosis is the premature death of cells or tissues due to injury, toxins, or disease.
    - Types include coagulative, liquefactive, caseous, fat, and fibrinoid necrosis.
196. Bronchiectasis:
    - Chronic dilation and inflammation of bronchial tubes.
197. Osteoarthritis:
    - Degenerative joint disease with cartilage breakdown.
198. Poliomyelitis:
    - Viral infection causing muscle weakness and paralysis.
199. Fate of a thrombus:
    - Can resolve, embolize, or organize into fibrous tissue.
200. Chemical carcinogens:
    - Chemical substances that can cause cancer.
201. Type 1 hypersensitivity reaction:
    - IgE-mediated allergic reaction.
202. Fallot's tetralogy:
    - A congenital heart defect involving four heart abnormalities.
203. Complications of diabetes mellitus:
    - Include neuropathy, nephropathy, retinopathy, and cardiovascular issues.
204. Paget's disease of bone:
    - Bone disorder characterized by abnormal bone remodeling.
205. Scurvy:
    - Vitamin C deficiency causing weakness and gum bleeding.

206. Hemophilia:
    - Genetic disorder causing impaired blood clotting.
207. Bronchiectasis:
    - Chronic dilation and inflammation of bronchial tubes.
208. Granulomatous inflammation:
    - Chronic inflammation with granuloma formation.
209. Bronchiectasis:
    - Chronic dilation and inflammation of bronchial tubes.
210. Osteoporosis:
    - Decreased bone density and increased fracture risk.
211. Lab diagnosis of iron deficiency anemia:
    - Involves low hemoglobin, ferritin, and transferrin saturation.
212. Types of aneurysm:
    - Include true (saccular or fusiform) and false (pseudoaneurysm).
213. Gastric Ulcer:
    - An open sore in the stomach lining.
214. Chronic venous congestion lung:
    - Lung congestion due to impaired venous return.
215. Kwashiorkor:
    - Malnutrition disorder with protein deficiency.
216. Rickets:
    - Childhood bone disease due to vitamin D deficiency.
217. Aneurysm:
    - Abnormal dilation of a blood vessel.
218. Gastric ulcer:
    - An open sore in the stomach lining.

219. Psoriasis:
    - Chronic skin condition characterized by red, scaly plaques.
220. Hypertrophy:
    - Increase in cell size or tissue volume.
221. Cholecystitis:
    - Inflammation of the gallbladder.
222. Urinary tract infection:
    - Infection of the urinary system.
223. Ischemia:
    - Insufficient blood supply to tissues.
224. Modes of transmission of HIV infection:
    - Sexual contact, blood-to-blood contact, and mother-to-child transmission.
225. Type IV Hypersensitivity reaction:
    - Delayed-type hypersensitivity mediated by T cells.
226. Poliomyelitis:
    - Viral infection causing muscle weakness and paralysis.
227. Grave's disease:
    - Autoimmune disorder causing hyperthyroidism.
228. Gout:
    - Inflammatory joint disease due to uric acid crystals.
229. Primary complex:
    - Initial stage of tuberculosis infection in the lungs.
230. Leukemia:
    - Cancer of the blood-forming tissues.
231. Dystrophic calcification:
    - Calcium deposits in damaged or necrotic tissues.

232. Fatty liver:

- Accumulation of fat in liver cells.

233. Pyogenic meningitis:

- Bacterial infection of the membranes surrounding the brain and spinal cord.