**1. Opportunistic infections occur when:**

1. pathogen do not infect the host
2. bacteria cause infectious disease in immunocompromised persons
3. bacteria are spread by poor hand hygiene
4. bacteria spread among hopitalized patients
5. bacteria affect persons in condition of low temperature

**2. An epithelialized track connecting the midportion of the jejunum and a point on the skin three cm left of the umbilicus is an example of a(n):**

1. autolysis
2. choristoma
3. cyst
4. fistula
5. abscess

**3. The "acute phase reaction" in acute inflammation is a group of biochemical changes mediated by:**

1. dilatation of small blood vessels
2. factors released from macrophages
3. histamine and complement components
4. neutrophil injury to tissue
5. the increased erythrocyte sedimentation rate

**4. What's the characteristic cell in inflammation caused by worms:**

1. eosinophil
2. lymphocyte
3. macrophage
4. neutrophil
5. plasma cell

**5.** **Which of the following is associated with acute inflammation:**

1. neutophils
2. macrophages
3. lymphocytes
4. tissue fibrosis
5. tissue sclerosis

**6. Acute inflammation may be triggered by infections, trauma, physical or chemical agents, tissue necrosis, foreign bodies, and immune reactions. Which of the following is NOT seen in acute inflammation:**

1. modification in vascular caliber
2. decreased blood flow
3. structural changes in the microvasculature (edema)
4. plasma proteins and leukocytes leaving the circulation
5. leukocytic infiltrate to eliminate the offending agent

**7. Vascular changes associated with acute inflammation include \_\_\_\_ and \_\_\_\_ vascular permeability.**

1. vasoconstriction; decreased
2. vasoconstriction; increased
3. vasodilatation; decreased
4. vasodilatation; increased
5. vasodilatation; normal

**8. Which of the following is NOT a general principle of the chemical mediators of inflammation:**

1. mediators originate either from plasma or from cells
2. the production of active mediators is triggered by microbial products or by host proteins
3. one mediator can stimulate the release of other mediators by target cells themselves
4. mediators can act on one or few target cell types
5. once activated and released from the cell, most of these mediators last a long time (long-lived)

**9.** **Which of the following is NOT true regarding contribution to inflammation:**

1. lysosomal constituents increase vascular permeability and tissue damage
2. oxygen free radicals amplify the cascade that elicits the inflammatory response
3. neuropeptides help initiate and propagate the inflammatory response
4. the response to hypoxia decreases vascular permeability
5. the response to necrotic cells is pro-inflammatory

**10. One possible outcome of acute inflammation is resolution, with the other outcomes being chronic inflammation and fibrosis (loss of function). Which of the following is NOT associated with resolution:**

1. agenesis
2. clearance of mediators and acute inflammatory cells
3. replacement of injured cells
4. normal function
5. angiogenesis

**11. Which of the following develops, histologically, as an eosinophilic meshwork of threads or sometimes as an amorphous coagulum:**

1. serous inflammation
2. fibrinous inflammation
3. suppurative inflammation
4. ulcers
5. gangrenous inflammation

**12. Which of the following is characterized by the production of large amounts of pus consisting of neutrophils, necrotic cells, and edema fluid:**

1. serous inflammation
2. fibrinous inflammation
3. suppurative inflammation
4. ulcers
5. gangrenous inflammation

**13. Which of the following is marked by the outpouring of a thin fluid that, depending on the size of injury, is derived from either the plasma or the secretions of mesothelial cells lining the peritoneal, pleural, and pericardial cavities:**

1. serous inflammation
2. fibrinous inflammation
3. suppurative inflammation
4. ulcers
5. gangrenous inflammation

**14**. **Granuloma is a focus of chronic inflammation consisting of a microscopic aggregation of macrophages. Which of the following are cause of an infectious granulomas and NOT a foreign body granulomas:**

1. talc
2. sutures
3. microbes
4. sodium urate
5. viruses

**15. Which of the following is NOT a systemic effect of inflammation:**

1. fever
2. increased acute-phase proteins
3. leukocytosis
4. decreased pulse and blood pressure
5. cytokine release (IL-1 and TNF)

**16. On autopsy, the central focal area of coagulative necrosis of the myocardium surrounded by proliferating fibroblasts and angioblasts indicates that the infarction occurred:**

1. 1 to 2 hours before death
2. 7 to 24 hours before death
3. 7 to 14 days before death
4. 25 to 48 hours before death
5. more than 5 months before death

**17. The pain associated with an inflammatory reaction can best be explained by:**

1. damage to nerve endings in direct contact with the inflammatory agent
2. combined effect of increased tissue pressure and certain chemical mediators (e.g. bradykinin)
3. eliberation of serotonin from mast cell
4. direct action of lysosomal eenzymes
5. direct action of histamine and fragments of complement

**18. Which of the following is not considered to be a cardinal sign of inflammation:**

1. pain
2. heat
3. cold
4. reddness
5. swelling

**19. The cardinal signs of inflammation are most likely associated with:**

1. acute inflammatory reactions
2. chronic inflammatory reactions
3. granulomatous inflammatory reactions
4. wounds healing
5. subacute inflammatory reactions

**20. The cell type that occurs with the least degree of frequency in a chronic inflammatory reaction are:**

1. fibroblasts
2. angioblasts
3. macrophages
4. lymphocytes
5. neutrophils
6. **The characteristic cell found in granulomatous inflammation is:**
7. myofibroblast
8. epithelioid cell
9. plasma cell
10. giant cell
11. activated mast cell
12. **Epithelioid cells are derived from:**
13. microglial cells
14. blood monocytes
15. T-lymphocytes
16. activated basophiles
17. giant cells
**23. The inflammatory cell type considered to be the "hallmark" of acute inflammation is:**
18. epithelioid cell
19. myofibroblasts
20. neutrophils
21. B-lymphocytes
22. eosinophils
**24. Which of the following cells have the capacity to reproduce at the site of injury:**
23. neutrophiles and macrophages
24. lymphocytes and eosinophils
25. basophiles and neutrophils
26. macrophages and lymphocytes
27. plasma cells and macrophages

**25. The characteristic feature of early hemodynamic changes in acute inflammation is:**

1. decreased flow of blood to the affected tissue
2. increased permeability of capillaries and venules
3. release of histamine into the affected tissue
4. exudation of neutrophils
5. increased blood flow to the affected tissue

**26. At the early stages of acute inflammation, histamine** **is responsible for increased permeability** **in:**

1. veins and capillaries
2. venules and capillaries
3. large arteries and arterioles
4. arterioles and venules
5. veins and large arteries

**27. Which of the following cell types is not an active component of inflammatory process:**

1. neutrophils
2. basophiles
3. erythrocytes
4. monocytes
5. eosinophils

**28. The process by which mobile leukocytes escape from the blood vessel lumen into perivascular tissue is appropriately referred to as:**

1. endocytosis
2. migration
3. margination
4. phagocytosis
5. chemotaxis

**29. The engulfment of foreign particulate matter by inflammatory cells is appropriately referred to as:**

1. migration
2. phagocytosis
3. chemotaxis
4. leukocytosis
5. anaplasia
**30. Each of the following is true for fibrinous exudate, except:**
6. fibrin is the major constituent of fibrinous exudate
7. fibrinous exudate is associated with inflammatory reactions
8. fibrinous exudate is a major constituent of a phlegmon
9. fibrinous exudate occurs primarily on mucous and serous membranes
10. fibrinous exudate serves as a framework for repair processes
11. **Each of the following is a feature of suppurative exudation except:**
12. presence of neutrophiles
13. presence of pyogenic bacteria
14. death of cells
15. liquefaction
16. diphtheric membranes

**32. An exudate characterized by excessive production of mucin is** **appropriately** **referred to as:**

1. catarrhal exudate
2. serous exudate
3. non-inflammatory exudate
4. hemorrhagic exudate
5. purulent exudate

**33. Which of the following has the greatest capacity to regenerate:**

1. renal glomeruli
2. cardiomyocytes
3. skeletal muscle cells
4. neurons of the central nervous system
5. hepatocytes

**34. Which of following are the types of exudative inflammation:**

1. fibrinous inflammation
2. gangrenous inflammation
3. interstitial inflammation
4. granulomatous inflammation
5. purulent inflammation

**35. Which of following are etiological factors of fibrinous inflammation:**

1. diphtheria bacillus
2. streptococcus
3. anthrax bacillus
4. endointoxication

**e.** staphylococcus

**36. Which of following exudates is characteristic for diphtheritic inflammation:**

1. purulent exudate
2. serous exudate
3. fibrinous exudate
4. hemorrhagic exudate

 **e.** catarrhal exudate

**37. Inflammation** **is classified in the following types depending on the nature of exudate:**

1. specific inflammation
2. nonspecific inflammation
3. acute inflammation
4. chronic inflammation
5. invasive inflammation

**38. Which of the following are acute inflammation types:**

1. catarrhal inflammation
2. interstitial inflammation
3. hemorrhagic inflammation
4. fibrinous inflammation
5. granulomatous inflammation

**39. Phlegmon is characterized by:**

1. catarrhal inflammation
2. fibrinous inflammation
3. fibrous-connective delimitation
4. pyogenic membrane presence
5. presence of diffuse purulent inflammation

**40. Which of the following is the initial inflammatory stage:**

1. exudation
2. proliferation
3. alteration
4. phagocytosis
5. pinocytosis

**41. Specify the morphological forms of inflammation:**

1. proliferative inflammation
2. mesenchymal inflammation
3. mixed inflammation
4. exudative inflammation
5. post-necrotic inflammation

**42. Phlegmon commonly occurs in:**

1. subcutaneous adipose tissue
2. lax fibrous-connective tissue
3. brain tissue
4. liver
5. myocardium

**43. Identify the etiology of hemorrhagic inflammation**

1. anthrax
2. peptic ulcer
3. flu
4. thyrotoxicosis
5. pest

**44. Specify the types and varieties of purulent inflammation:**

1. abscess
2. soft phlegmon
3. hard phlegmon
4. crupous inflammation
5. diphteric inflammation

**45. The successive phases of inflammation include:**

1. petrification
2. induration
3. agglutination
4. exudation
5. proliferation

**46. In purulent exudate, unlike the serous one prevail:**

1. exfoliated cells of the surface epithelium
2. exfoliated cells of the mesothelium
3. neutrophils
4. mucus
5. bacteria

**47. At the microcirculation level the following changes may occur as a result of increased vascular permeability:**

1. exudation of plasma
2. exicosis
3. emigration of intravascular cells
4. exudate and cellular infiltrate formation
5. cadaveric hypostasis

**48. Which of the following are acute inflammation types:**

1. putrid inflammation
2. crupous inflammation
3. diphtheric inflammation
4. proliferative inflammation
5. productive inflammation

**49. Specify exudative inflammation type that is typical for upper respiratory tract in diphtheria:**

1. purulent
2. catarrhal
3. crupous
4. diphtheric
5. putrid

 **50. Abscess is characterized by:**

1. focal character of purulent inflammation
2. diffuse character of purulent inflammation
3. presence of necrotic tissue in the focus of inflammation
4. availability pf pyogenic membrane
5. absence of pyogenic membrane

**51. Which of the following are the types of phagocytosis:**

1. complete phagocytosis
2. incomplete phagocytosis
3. direct phagocytosis
4. indirect phagocytosis
5. endocytosis

**52. Identify etiology of fibrinous inflammation:**

1. uremia
2. diphtheria
3. dysentery
4. anemia
5. erythremia

**53. Which of the following bacteria may cause nonspecific inflammation:**

1. streptococci
2. mycobacteria tuberculosis
3. meningococci
4. treponema palidum
5. saphylococci

**54. Crupous inflammation is usually localized at the level of:**

1. oral cavity
2. tonsils
3. pharynx
4. trachea
5. bronchi

**55. Which inflammation types are characterized by cell multiplication:**

1. alterative inflammation
2. exudative inflammation
3. proliferative inflammation
4. parenchymatous inflammation
5. productive inflammation

**56. Acute purulent inflammation is characterized by the following:**

1. fistulas
2. thrombophlebitis
3. cellulitis
4. ichthyosis
5. amyloidosis

**57. Which processes reflect the migration of blood cells during inflammation:**

1. pinocytosis
2. phagocytosis
3. leukocytes diapedesis
4. endocytosis
5. erythrocytes diapedesis

**58. Identify types of acute inflammation:**

1. crupous inflammation
2. putrid inflammation
3. granulomatous inflammation
4. abscess
5. purulent cellulitis

**59. Depending on evolution, the inflammation is classified into:**

1. acute inflammation
2. fibrinous inflammation
3. chronic inflammation
4. specific inflammation
5. nonspecific inflammation

**60. Identify etiology of serous inflammation:**

1. thyrotoxicosis
2. amyloidosis
3. sclerosis
4. uremia
5. tuberculosis

**61. Which of the following are examples of exudative inflammation:**

1. parenchymatous inflammation
2. purulent inflammation
3. catarrhal inflammation
4. interstitial inflammation
5. granulomatous inflammation

**62. Dyphtheric inflammation is typically localized in:**

1. pharynx
2. tonsils
3. esophagus
4. stomach
5. intestine

**63. Successive steps of the inflammatory process are:**

1. coagulation
2. alteration
3. exudation
4. infiltration
5. proliferation

**64. Granulomatous inflammation is a type of:**

1. productive inflammation
2. exudative inflammation
3. interstitial inflammation
4. proliferative inflammation
5. alterative inflammation

**65. Which of the following cells are identified in tuberculous granuloma:**

1. neutrophils
2. lymphocytes
3. epithelioid cells
4. eosinophils
5. mast cells

**66. In which pathological processes develops specific inflammation:**

1. rheumatic fever
2. syphilis
3. tuberculosis
4. typhoid fever
5. dysentery

**67. Which of the following are comprised in tuberculous granuloma:**

1. Virchow cells
2. Langhan’s cells
3. amyloid
4. caseous necrosis
5. fibrinous necrosis
6. **Echinococcosis primarily affects the:**
7. lungs
8. kidneys
9. liver
10. stomach
11. eyes
12. **Which type of inflammation usually occurs in tissue which surrounding parasites:**
13. alterative inflammation
14. exudative inflammation
15. productive inflammation
16. specific inflammation
17. nonspecific inflammation

**70. Heart„in cuirass” is characterised by:**

1. fibrinous inflammation
2. organization and calcification of exudate
3. suppuration
4. adherence formation
5. serous inflammation
6. **The most frequent cause of purulent inflammation are:**
7. viruses
8. toxins
9. protozoa
10. chemicals
11. staphylococci
12. **Microscopically purulent exudate is represented by a large number of:**
13. monocytes
14. lymphocytes
15. neutrophils
16. erythrocytes
17. thrombocytes
18. **Causes of purulent inflammation are the following** **pathogens, EXCEPT:**
19. staphylococci
20. viruses
21. escherichia coli
22. streptococci
23. klebsiella
24. **Phlegmonous cellulitis is referred to the following type of inflammation:**
25. catarrhal
26. purulent
27. crupous
28. gangrenous
29. diphtheric
30. **Which of the following are examples of exudative inflammation:**
31. fibrinous inflammation
32. purulent inflammation
33. gangrenous inflammation
34. interstitial inflammation
35. granulomatous inflammation
36. **Exudate containing a large amount of neutrophilic leukocytes is called:**
37. serous
38. hemorrhagic
39. purulent
40. fibrinous
41. gangrenous