1. Which immune reaction is morphologically manifested by the widening of the germinal centers and increased number of plasmoblasts and plasmocites:

a) immune reaction of celluar type

b) mixed immune reaction

c) autoimmune reaction

d) immunodeficiency reaction

e) humoral immune reaction

2. All of the listed signs characterize immediate type allergic reactions, EXCEPT:

a) develops in a few minutes

b) predominance of lymphocytes and macrophages

c) sero-hemorrhagic inflammation

d) fibrinoid necrosis of the vascular walls

e) vessels thrombosis

3. All of the listed signs characterize delayed allergic reactions, EXCEPT:

a) develops in 24-72 hours

b) predominance of lymphocytes and macrophages

c) predominance of neutrophilic leukocytes

d) granulomatosis

e) interstitial infiltration

4. Which blood cells do not refer to the immune system:

a) T lymphocytes

b) B lymphocytes

c) monocytes

d) erythrocytes

e) plasmocytes

5. The most severe complication of Quincke's edema is:

a) spastic abdominal pain

b) pneumothorax

c) laryngeal edema

d) mucus hypersecretion

e) heart failure

6. Which hypersensitivity reaction occurs in urticaria:

a) type I hypersensitivity reaction

b) type II hypersensitivity reaction

c) type III hypersensitivity reaction

d) type IV hypersensitivity reaction

e) posttransfusion reaction

7. Which hypersensitivity reaction develops after intradermal tuberculin injection (Mantoux test):

a) Arthus reaction

b) serum sickness

c) type III hypersensitivity reaction

d) type IV hypersensitivity reaction

e) anaphylactic shock

8. In which of the listed conditions immediate hypersensitivity reaction occurs :

a) atopic bronchial asthma

b) anaphylactic shock

c) tuberculinic type reaction

d) contact dermatitis

e) newborn hemolytic disease

9. Which of the listed signs characterizes humoral immune deficiency syndrome:

a) thymus hypoplasia

b) absence of immunoglobulins in blood

c) absence of germinal centers in lymph nodes

d) number of plasma is normal

e) high frequency of severe infections and sepsis

10. Which of the listed malignant tumors occur more common in AIDS:

a) skin cancer

b) Kaposi sarcoma

c) nephroblastoma

d) non-Hodgkin's lymphomas

e) multiple myeloma

11. Which of the listed signs characterizes humoral immune reactions:

a) antigen is destroyed by the immune cytolysis mechanism

b) participation of B lymphocytes

c) participation of T lymphocytes

d) antigen is destroyed by the phagocytic immune mechanism

e) effector cell is plasmocyte

12. Which of the listed signs characterizes cellular immune reactions:

a) the antigen is destroyed by the immune cytolysis mechanism

b) participation of B lymphocytes

c) antigen is destroyed by the immune phagocytosis mechanism

d) effector cell is plasmocyte

e) effector cells are T-killer lymphocytes and macrophage

13. Which of the listed diseases are part of organospecific autoimmune diseases:

a) systemic lupus erythematosus

b) rheumatoid arthritis

c) Hashimoto's thyroiditis

d) autoimmune orchitis

e) scleroderma

14. Which of the listed autoimmune diseases are systemic:

a) polymyositis

b) rheumatoid arthritis

c) Hashimoto's thyroiditis

d) autoimmune gastritis

e) scleroderma

15. For which listed autoimmune diseases are characteristic anti-nuclear autoantibodies:

a) polymyositis

b) scleroderma

c) Hashimoto's thyroiditis

d) systemic lupus erythematosus

e) autoimmune hemolytic anemia

16. For which of the listed pathological conditions are characteristic autoantibodies to IgG:

a) bronchopneumonia

b) autoimmune sialoadenitis

c) systemic sclerosis

d) rheumatoid arthritis

e) autoimmune thyroiditis

17. What changes are seen in the third stage of rheumatoid arthritis:

a) arthrosis

b) calcinosis

c) granulation tissue proliferation

d) fibro-osseous ankylosis

e) fibrinoid intumescence of synovial villi

18. Frequent complication of rheumatoid arthritis is:

a) endomyocarditis

b) amyloidosis

c) cardiac valvulopathy

d) mucoid intumescence

e) cerebral abscess

19. What are skin lesions in systemic lupus erythematosus:

a) allergic dermatitis

b) nodal erythema

c) butterfly erythema

d) hyperkeratosis

e) atrophy of sweat and sebaceous glands

20. The characteristic lesion of the spleen in systemic lupus erythematosus is:

a) hyalinosis of the central arteries of the follicles

 b) perivascular "onion-skin" sclerosis

c) "fatty" spleen

d) "sago" spleen

e) "lardaceous" spleen

21. The characteristic lesions in polyarteritis nodosa are:

a) arteriosclerosis

b) atherosclerosis

c) fibrinoid necrosis

d) proliferative vasculitis

e) amyloidosis

22. The consequence of polyarteritis nodosa is:

a) mucoid intumescence

b) lipoidosis

c) arterial sclerosis

d) atherosclerosis

e) atheromatosis

23. Skin lesions in systemic scleroderma are:

a) sclerosis and hyalinosis

b) calcinosis

c) dermatitis

d) purulent inflammation

e) lipoidosis

24. The characteristic change of the heart in systemic scleroderma is:

a) verrucous endocarditis

b) macrofocal cardiosclerosis

c) mucoid tumefaction

d) serous myocarditis

e) purulent myocarditis

25. What etiological factors can cause systemic lupus erythematosus:

a) viral infection

b) smoking

c) exposure to ultraviolet light

d) drug intolerance

e) hereditary predisposition

26. The characteristic sign of lupus nephritis is:

a) hyalinosis of stroma

b) glomerular amyloidosis

c) fibrinoid necrosis of glomerular capillaries

d) acute tubular necrosis

e) glomerular anemia

27. Complications of rheumatoid arthritis are:

a) subluxations and luxations of small joints

b) subluxations and luxations of large joints

c) fibrous osteodysplasia

d) fibrous and osseous ankylosis

e) renal amyloidosis

28. In systemic lupus erythematosus all listed signs are seen, EXCEPT:

a) glomerulonephritis

b) arthralgia (pain in joints)

c) skin lesion

d) valvular endocarditis

e) viral hepatitis B antigen (HBs-Ag)

29. Which variant of valvular endocarditis is observed in systemic lupus erythematosus:

a) acute verrucous

b) diffuse

c) chronic verrucous

d) nonbacterial verrucous

e) ulcerative polypous

30. Characteristic signs of systemic scleroderma are:

a) nodular erythema

b) drawn mask face

c) hemorrhagic rash on the skin

d) low mobility of the skin

e) increased skin density

31. The consequences of lesions of the ligamentous apparatus of the spinal column and of the intervertebral discs in rheumatoid arthritis are:

a) mucoid intumescence

b) ulcers

c) granulomatosis

d) calcinosis, ossification

e) granulation tissue proliferation

32. Which characteristic elements can be found in synovial fluid in the first stage of rheumatoid arthritis:

a) catarrhal exudate

b) rice bodies

c) Babes-Negri corpuscles

d) ragocytes

e) hemorrhagic fluid

33. Visceral lesions in systemic scleroderma are:

a) retinal sclerosis

b) cortical necrosis of the kidneys

c) perivascular "onion-skin" sclerosis of the spleen

d) basal pneumofibrosis

e) macrofocal cardiosclerosis

34. In which condition is observed "wire loop" phenomenon:

a) atherosclerosis

b) rheumatoid arthritis

c) rheumatic fever

d) systemic lupus erythematosus

e) scleroderma

35. The possible causes of death in systemic lupus erythematosus are:

a) lung infarction

b) purulent meningitis

c) arthrosis

d) sepsis

e) uremia

36. In which of the listed pathological conditions AA amyloidosis can develops:

a) acute appendicitis

b) chronic abscesses

c) tonsillitis

d) bronchiectasis

e) chronic cholecystitis

37. What macroscopic changes of organs are observed in amyloidosis:

a) diminished dimensions

b) increase dimensions

c) dense consistency

d) soft consistency

e) waxy appearance

38. Which of the listed signs are characteristic of AA amyloidosis:

a) absence of a previous pathological condition

b) lesions of generalized character

c) predominant injury to the brain, pancreas, arteries, heart

d) the presence of a previous pathological condition

e) predominant injury to the spleen, kidneys, liver, adrenal glands, intestine

39. In which of the listed pathological conditions can AL amyloidosis develops:

a) syphilis

b) plasma cell dyscrasia

c) hypertension

d) ischemic heart disease

e) multiple myeloma

40. In which of the listed pathological conditions amyloidosis AA can develops:

a) tuberculosis

b) plasma cell dyscrasia

c) labar pneumonia

d) multiple myeloma

e) chronic osteomyelitis

41. Which organs are most commonly affected in secondary (reactive) amyloidosis:

a) spleen, liver, kidneys

b) the brain

c) adrenal glands, thymus

d) heart, lungs

e) pancreas, prostate, pituitary gland

42. The most common cause of death in secondary (reactive) amyloidosis amyloidosis is:

a) cerebral infarction

b) anemia

c) uremia

d) suppurative appendicitis

e) myocardial infarction

43. The characteristic changes of the "sago" spleen in amyloidosis are:

a) spleen is enlarged in dimensions

b) amyloid is deposited in the white pulp

c) amyloid is deposited in the red pulp

d) amyloid is deposited in the spleen capsule

e) spleen has a variegated appearance on cross section

**44. In which of the following renal structures amyloid is predominantly deposited:**

a.vascular wall

1. capillary loops and mesangium of glomeruli
2. cytoplasm of nephrocytes
3. vascular lumen
4. basement membrane of the renal tubules.

**45. Amyloid is a protein that deposits in:**

1. cells
2. foci of necrosis
3. nuclei of cells
4. foci of calcification
5. interstitial tissue
6. sudan-3

**46. Amyloidosis is a complication of:**

 **a.** pneumonia

1. hypertensive disease
2. dysentery
3. atherosclerosis
4. bronchiectasis

**47. Which of the following is amyloid specific stain:**

1. hematoxylin-eosin
2. picrofuchsin
3. kongo-red
4. toluidine
5. sudan - 3

**48. Which of the following is referred to the macroscopic diagnosis of amyloidosis:**

1. 10% sulfuric acid
2. lugol solution
3. 10% hydrochloric acid
4. 10% osmic acid
5. toluidine blue

**49. Amyloidosis can be a complication of:**

1. tuberculosis
2. atherosclerosis
3. diabetes mellitus
4. hepatitis
5. hypertension

**50. Which of the followings are etiologic types of amyloidosis:**

1. localized type
2. generalized type
3. primary type
4. secondary type
5. hereditary type

**51. Cardiomegaly in amyloidosis is characterized by deposition of amyloid:**

1. under the endocardium
2. in the cardiomyocytes cytoplasm
3. into stroma
4. **in the** nerves
5. along vessels