

## Computer tests 5 year students.

### ALLERGOLOGY

#### **1. The manifestations of atopic dermatitis are more often provoked by:**

1. cold weather
2. hot water
3. scratching
4. food-borne allergens
5. infections

#### **2. Typical signs for allergization by household allergins are:**

1. moderate eosinophilia
2. as a rule, allergy is manifested in spring
3. allergy may disappear after change of residence
4. allergy may appear after cleaning the flat
5. combination with food allergy

#### **3. Typical signs for allergization by grass pollen allergins are:**

1. high eosinophilia
2. seasonal changes with frequent exacerbations in spring and summer
3. allergy is more often manifested as rhinoconjunctival syndrome
4. allergy is more often manifested as dermatitis
5. exacerbations are provoked by hyperventilation

#### **4. Allergic rhinitis is as a rule due to sensitization by:**

1. pollen of plants
2. salts of heavy metals
3. antigens of bacterial capsules
4. house dust
5. food allergens

#### **5. Taking topical glucocorticoids in allergic rhinitis one should remember:**

1. maximum effect develops in 2-3 days
2. maximum effect develops in 2-3 years
3. after achieving a positive effect the drug should be withdrawn gradually
4. after achieving a positive effect drug dose should be decreased 2-3 fold gradually
5. in severe persistent course the drug can be given up to 2 years

#### **6. Using histamine receptors H1 blockers in allergic rhinitis one should remember:**

1. it is better to use them at early stages of the disease
2. if there is no effect, the dose should be increased and the course should be prolonged
3. in a period of remission these drugs should be taken periodically to prevent the exacerbations
4. in a protracted course it is better to take them orally than topically

**7. Specific immunotherapy with allergens in allergic rhinitis is indicated:**

1. when it lasts the whole year round
2. in seasonal course in polyvalent sensitization
3. in coincidence of allergy tests and clinical data
4. when the duration of the disease is not longer than 6 years
5. when concurrent contact dermatitis or bronchial asthma are absent

**8. Using intranasal adrenoceptor agonists in allergic rhinitis one should remember:**

1. the optimal course is 2-4 weeks
2. in a protracted course they should be given until the symptoms disappear
3. these drugs should not be given more than 3-5 days running
4. when there is no effect the dose should be increased gradually
5. they are indicated to prevent exacerbations in a period of remission

**9. In status asthmaticus it is necessary to administer:**

1. intravenous introduction of aminophylline
2. oxygen therapy
3. histamine receptors H1 blockers
4. sedatives
5. hormones parenterally

**10. Using inhalation glucocorticoids in bronchial asthma one should remember:**

1. maximum effect develops in 2-3 minutes
2. mucous candidiasis is a common exacerbation
3. impaired teeth eruption is a common exacerbation
4. concomitant use with adrenoceptor agonists is contraindicated
5. concomitant use with stabilizers of mast cells membranes is contraindicated

**11. Indications for systemic glucocorticoids administration in bronchial asthma are:**

1. the duration of the disease is more than 5 years
2. status asthmaticus
3. absence of the effect in inhalation glucocorticoids administration
4. absence of the effect in adrenoceptor agonists administration

**12. Medications that increase the obstruction in attacks of bronchial asthma:**

1. angiotensin-converting enzyme inhibitors
2. spasmolytics
3. tranquilizers
4. beta-2-adrenergic blockers
5. methylxanthines

**13. For aspirin-induced asthma it is typical:**

1. frequent combination with polypous rhinosinusitis
2. frequent combination with ulcer disease
3. nocturnal attacks are typical
4. aspirin intolerance
5. raspberries, plums and grapes can cause attacks

**14. The most common causes of food allergy from the listed below are:**

1. rabbit meat
2. fish
3. milk
4. peanuts
5. potatoes

**15. Drug allergy can be caused by:**

1. long-term treatment
2. high doses of a drug
3. intravenous administration of a drug
4. frequent interrupted administrations of a drug
5. drug administration without concomitant use of histamine receptors blockers

**16. Immediate generalized reactions of anaphylactic type are caused by:**

1. radiopaque substances
2. beta-lactam antibiotics
3. heterogenous serum
4. vaccines
5. nonsteroidal antiinflammatory drugs

**17. General principles of drug allergy treatment:**

1. withdrawal of the suspected drug
2. antihistamines administration for 7-10 days
3. in marked manifestations Prednisolone is administered in a dose of 1mg/kg daily for 7-14 days
4. plasmapheresis to remove immune complexes
5. interferon to activate cellular immunity

**18. General principles of drug disease prevention:**

1. to prescribe drugs justified by clinical presentation
2. to avoid polypragmasy
3. to take the drug history carefully
4. antibiotics should be administrated only in combination with antihistamine drugs

**19. What drugs are administered to treat urticaria in the first place:**

1. adrenaline
2. hydrocortisone and calcium preparations
3. antihistamine drugs
4. glucocorticosteroids

**20. What factors from the listed below induce degranulation of basophils and mast cells:**

1. MHC-II in combination with antigen
2. MHC-I in combination with antigen
3. IgE in combination with antigen
4. IgM in combination with antigen
5. interleukine-8

## IMMUNOLOGY

**21. Choose the central organs of immunogenesis in a human being:**

1. thymus
2. bone marrow
3. Peyer's plaques
4. spleen
5. lymphopharyngeal ring

**22. What cells produce antibodies?**

1. mastocytes
2. B-lymphocytes
3. T-lymphocytes
4. plasmacytes
5. eosinophils

**23. In diagnosis of what diseases is it more important to estimate the number of T- and B- lymphocytes in the blood?**

1. acute infectious diseases
2. immunodeficiency states
3. lymphoproliferative diseases
4. allergic diseases
5. AIDS

**24. Choose the time of the first signs appearance of HIV infection in intrauterine infection:**

1. inside the uterine
2. immediately after birth
3. one month later after birth
4. 6 months later after birth
5. one year later after birth

**25. Antinuclear antibodies and rheumatoid factor are most frequently associated with the following diseases:**

1. rheumatoid arthritis
2. Sjögren's sicca syndrome
3. systemic lupus erythematosus
4. idiopathic thrombocytopenic purpura
5. autoimmune thyroiditis

**26. Which diseases from the listed below are typical of immunodeficiency with dominating antibody deficiency:**

1. possible autoimmune syndromes
2. recurrent ear, nose, throat diseases
3. susceptibility to virus diseases
4. recurrent respiratory diseases

**27. Which clinical manifestations from the listed below are more typical of Bruton's disease:**

1. boys are affected
2. girls are affected
3. hypoplasia of lymphatic nodes and tonsils
4. hypoplasia of thymus
5. vitiligo

**28. What from the listed below is typical of "selective IgA deficit":**

1. susceptibility to infectious affections of arachnoid membranes
2. susceptibility to recurrent infections of the upper respiratory tract
3. susceptibility to bronchial obstruction
4. susceptibility to infectious diarrhea
5. susceptibility to infectious urogenital diseases

**29. What is typical of patients with severe combined immunodeficiencies:**

1. anergy in skin allertests
2. hyperergic local reactions in antigen introduction
3. increased risk of response "transplant against the host"
4. Calmette-Guérin bacillus vaccination may cause a disease
5. poliomyelitis vaccination may cause cerebral affection

**30. Which of the listed laboratory manifestations are typical of Wiskott-Aldrich syndrome:**

1. erythrocytosis
2. thrombocytopenia
3. increased IgG level
4. decreased IgM level
5. increased IgE and IgA levels

**31. Which of the listed manifestations are typical of Di George's syndrome (hypoplasia of thymus):**

1. dextroposition of heart
2. tetany
3. decreased number of eosinophils
4. decreased number of T-lymphocytes
5. decreased IgM level and increased IgA level

**32. Which of the listed manifestations are typical of Louis-Bar syndrome:**

1. ataxia
2. tetany
3. skin and eye telangiectases
4. accelerated puberty
5. susceptibility to oncological pathology

**33. Which of the listed manifestations are more typical of usual variable immunodeficiencies (impaired maturation of plasma cells):**

1. is manifested in children from the first days of life

2. is more often manifested in adolescents and adults
3. hyperplasia of lymphoid nodes and liver
4. the level of IgM is increased
5. eosinophilia

#### **34. Properties of IgA:**

1. blocks the attachment of bacteria to epithelial cells
2. initiates degranulation of mast cells
3. activates complement
4. has a high affinity
5. acts as opsonin

#### **35. Properties of IgG:**

1. blocks the attachment of bacteria to epithelial cells
2. initiates degranulation of mast cells
3. activates complement
4. has a high affinity
5. acts as opsonin

#### **36. Properties of IgM:**

1. blocks the attachment of bacteria to epithelial cells
2. initiates degranulation of mast cells
3. activates complement
4. has a high affinity
5. acts as opsonin

#### **37. Properties of IgE:**

1. blocks the attachment of bacteria to epithelial cells
2. initiates degranulation of mast cells
3. activates complement
4. has a high affinity
5. acts as opsonin

#### **38. Live attenuated vaccine**

1. against measles
2. against parotitis
3. against rubella
4. Calmette-Guérin bacillus
5. against hepatitis B

#### **39. Administration of glucocorticoids causes:**

1. the decreased number of lymphocytes mainly due to T-cells
2. the decreased number of lymphocytes mainly due to B-cells
3. the decreased number of neutrophils in the blood
4. suppression of neutrophils migration in the tissues
5. the decreased number of eosinophils and basophils in the blood

**40. Immunologically privileged tissues are:**

1. mucous-associated lymphoid tissue
2. the interior of the eye
3. inner parts of testicles
4. basic membrane of renal glomerules
5. follicles of thyroid gland

**41. Organ-specific autoimmune diseases are:**

1. insulin-dependent diabetes mellitus
2. systemic lupus erythematosus
3. dermatomyositis
4. Hashimoto's disease
5. disease of hyaline membranes

**42. Systemic autoimmune diseases are:**

1. insulin-dependent diabetes mellitus
2. systemic lupus erythematosus
3. dermatomyositis
4. Hashimoto's disease
5. disease of hyaline membranes

**43. Immunoglobulins of which class go through placental barrier?**

1. IgA
2. IgM
3. IgG
4. IgE
5. IgD

**44. Choose CD-markers of T-helpers:**

1. CD 4
2. CD 8
3. CD 19
4. CD 3

**45. Choose CD-markers of cytotoxic T-lymphocytes:**

1. CD 4
2. CD 8
3. CD 19
4. CD 3

**46. Antigen-presenting cells activating T-helpers necessarily express on their surface:**

1. IgE
2. gamma-interferon
3. MHC-I
4. MHC-II
5. FcER2

**47. Name the methods of treatment in idiopathic thrombocytopenic purpura:**

1. splenectomy
2. cryoprecipitate
3. prednisolone
4. immunoglobuline G infusion
5. methylprednisolone pulse therapy

**48. What are the clinical manifestations of thrombocytopenic purpura?**

1. symmetrical rash of red spots and papules on the extensor surfaces
2. bruises and petechial hemorrhages all over the body
3. hemorrhages from the nose
4. paroxysmal abdominal pain

**49. What are the clinical manifestations of hemorrhagic vasculitis?**

1. symmetrical hemorrhagic rash of spots and papules on the extensor surfaces of the joints
2. paroxysmal abdominal pains
3. subcutaneous and intramuscular hematomas
4. uncontrollable bleedings after small traumas

**50. Which of the symptoms characterize aplastic anemia?**

1. leucopenia
2. high reticulocytosis
3. leukocytosis
4. thrombocytopenia
5. anemia

**51. What diseases are characterized by pancytopenia?**

1. acute leukosis
2. hemorrhagic vasculitis
3. aplastic anemia
4. idiopathic thrombocytopenic purpura

**52. The normal number of lymphocytes in differential blood count for children in their second year of life is:**

1. 20-30%
2. 60-70%
3. 45%

**53. In which of the named diseases can DIC syndrome develop:**

1. septic conditions
2. hemoblastoses
3. acute staphylococcal pneumonia
4. posttransfusion shock
5. hemorrhages

**54. Peakflowmetry allows defining:**

1. vital capacity of the lungs
2. rate of the forced expiration



3. content of a carbonic acid in the exhaled air

**55. Indications for administration of immunosuppressive agents to children with acute rheumatic fever are:**

1. acute course
2. high activity of pathologic process
3. continuously relapsing course
4. presence of a defect
5. presence of multiple extracardiac manifestations

**56. Indications for administration of glucocorticoids to children with acute rheumatic fever are:**

1. low activity of pathologic process
2. high activity of pathologic process
3. developing heart disease
4. continuously relapsing course
5. pancarditis

**57. Major diagnostic criteria of acute rheumatic fever include:**

1. carditis
2. polyarthritis
3. toxic erythema
4. chorea
5. nephritis

**58. Which joints are affected most often in the early stage of juvenile rheumatoid arthritis:**

1. wrist joints
2. elbow joints
3. ankle joints
4. knee joints
5. hip joints

**59. Still's disease in juvenile rheumatoid arthritis is characterized by:**

1. isolated articular syndrome
2. articular syndrome associated with eye involvement
3. articular syndrome associated with internal organs involvement
4. articular syndrome associated with CNS involvement

## The answers

1) 2,3,4,5 2) 3,4 3) 2,3 4) 1,4 5) 2,4,5 6) 1 7) 1,2,3 8) 3 9) 1,2,5 10) 2 11) 2,3 12) 1,3,4 13) 1,4,5 14) 2,3,4 15) 1,2,4 16) 2,3,4 17) 1,2,3,4 18) 1,2,3 19) 3 20) 3 21) 1,2 22) 4 23) 2,3,5 24) 4 25) 1,2,3 26) 1,2,4 27) 1,3 28) 2,3,4,5 29) 1,3,4,5 30) 2,4,5 31) 1,2,4 32) 1,3,5 33) 2,3 34) 1,5 35) 3,4,5 36) 3,5 37) 2,5 38) 1,2,3,4 39) 1,4,5 40) 2,3,5 41) 1,4 42) 2,3 43) 3 44) 1,4 45) 2,4 46) 3,4 47) 1,3,4,5 48) 2,4 49) 1,2 50) 1,4,5 51) 1,3 52) 2 53) 1,2,3 54) 2 55) 3 56) 2,3,4,5 57) 1,2,4 58) 4 59) 3.