

МИНИСТЕРСТВО ЗДРАВООХРАНЕНИЯ РЕСПУБЛИКИ БЕЛАРУСЬ
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«ГОМЕЛЬСКИЙ ГОСУДАРСТВЕННЫЙ МЕДИЦИНСКИЙ УНИВЕРСИТЕТ»

Кафедра внутренних болезней № 1
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ТЕСТОВЫЕ ЗАДАНИЯ ПО ВНУТРЕННИМ БОЛЕЗНЯМ

**Учебно-методическое пособие
для студентов 4–6 курсов всех факультетов
медицинских вузов**

TEST TASKS ON INTERNAL DISEASES

**Teaching workbook
for the 4–6th year students of all faculties
of medical higher educational institutions**

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Т 38

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ABBREVIATIONS

| | |
|----------------|---|
| ABP | — Arterial blood pressure |
| ACE inhibitors | — Angiotensin converting enzyme inhibitors |
| ALT | — Alanine transaminase |
| ANA | — Antinuclear antibody |
| APTT | — Activated partial thromboplastin time |
| ARI | — Acute respiratory infections |
| AST | — Aspartate transaminase |
| AV block | — Atrioventricular block |
| AV node | — Atrioventricular node |
| BD | — Twice a day (from Latin « <i>bis in die</i> ») |
| BMI | — Body mass index |
| CABG | — Coronary artery bypass grafting |
| CABG | — Coronary artery bypass grafting |
| CFK | — Creatinphosphokinase |
| CNS | — Central nervous system |
| COPD | — Chronic obstructive pulmonary disease |
| CRP | — C-reactive protein |
| DIC syndrome | — Disseminated intravascular coagulation syndrome |
| EAH | — Electrical axis of the heart |
| ECG | — Electrocardiogram |
| EchoCG | — Echocardiography |
| ERV | — Expiratory reserve volume |
| ESR | — Erythrocyte sedimentation rate |
| FEC | — Forced expiratory volume |
| G-CSF | — Granulocyte colony-stimulating factor |
| GERD | — Gastroesophageal reflux disease |
| GI | — Gastrointestinal tract |
| HDL | — High density lipoproteins |
| HIV | — Human immunodeficiency virus |
| IHD | — Ischemic heart disease |
| INR | — International normalized ratio |
| IRV | — Inspiratory reserve volume |
| LDL | — Low density lipoproteins |
| MCV | — Medium cell volume |
| MCHC | — Mean corpuscular hemoglobin concentration |
| MI | — Myocardial infarction |
| NSAIDs | — Nonsteroidal anti-inflammatory drugs |
| OD | — Once a day (from Latin « <i>omne in die</i> ») |
| Pacer | — Pacemaker |
| PE | — Pulmonary embolism |

| | |
|--------------|--|
| PMN | — Polymorphonuclear leucocytes |
| PUD | — Peptic ulcer disease |
| QDS | — Four times a day (from Latin « <i>quater die sumendum</i> ») |
| RA | — Rheumatoid arthritis |
| SA node | — Sinoatrial node |
| TIBC | — Total iron-binding capacity |
| TSH | — Thyroid-stimulating hormone |
| VC | — Vital capacity |
| VLDL | — Very low density lipoproteins |
| WHO | — World Health Organisation |
| WPW-syndrome | — Wolff-Parkinson-White syndrome |

TESTS IN PULMONOLOGY

Specify a correct variant of the answer

1. The most important differential and diagnostic criteria of chronic obstructive pulmonary disease (COPD) is:

Variants of answer:

- a) expiratory dyspnea;
- b) cough with secretion of sputum;
- c) weak or hard vesicular respiration with prolonged exhalation, dry buzzing and moist microvesicular râles;
- d) irreversible or partly reversible bronchial obstruction;
- e) all above.

2. Diagnostic criteria of chronic obstructive disease of lungs are:

Variants of answer:

- a) «coughing history» no less than 2 years (3 month running);
- b) negative bronchodilatation test;
- c) absence of another pathology of lungs, causing cough (bronchial asthma, cancer, tuberculosis, etc.);
- d) all above;
- e) expiratory dyspnea.

3. Most informative spirographic index for the diagnostics of bronchial asthma:

Variants of answer:

- a) respiratory capacity;
- b) forced expiratory volume (FEV);
- c) inspiratory reserve volume (IRV);
- d) expiratory reserve volume (ERV);
- e) peak expiratory flow (PEF).

4. In bronchial obstruction are contraindicated:

Variants of answer:

- a) propranolol;
- b) prednisolone;
- c) amlodipin;
- d) paracetamol;
- e) beclomethasone;

5. For decreasing of pulmonary hypertension in a patient suffering asthma the most efficient is:

Variants of answer:

- a) propranolol;
- b) amlodipin;

- c) beclomethasone;
- d) nitroglycerin;
- e) paracetamol.

6. The mechanism of action of beta-2 receptor agonists in bronchial asthma include all the following, except:

Variants of answer:

- a) relaxation of airway smooth muscle;
- b) inhibition of plasma exudation and airway edema;
- c) increased mucociliary clearance;
- d) increasing the release of mast cell mediator;
- e) prevent mucus secretion.

7. The most common side effects of beta-2 agonists are:

Variants of answer:

- a) dry mouth, urinary retention, and glaucoma;
- b) muscle tremor and palpitations;
- c) nausea and vomiting;
- d) hoarseness (dysphonia) and oral candidiasis;
- e) headache.

8. Salbutamol is a:

Variants of answer:

- a) corticosteroid;
- b) alpha-adrenergic receptor agonists;
- c) beta-adrenergic receptor agonist;
- d) anticholinergic;
- e) beta-blockers.

9. The recommended oral doses of salbutamol is:

Variants of answer:

- a) 10 to 20 mg, 6–8 hourly;
- b) 2 to 4 mg, 6–8 hourly;
- c) 200–400 mg, 6–8 hourly;
- d) 40–60 mg per day;
- e) 30 mg per day.

10. Cromolyn sodium and nedocromil sodium are asthma controller drugs that appear to:

Variants of answer:

- a) act by anti-inflammatory properties;
- b) inhibit phosphodiesterases in airway smooth-muscle cells;
- c) inhibit mast cell and sensory nerve activation;

- d) prevent cholinergic nerve-induced bronchoconstriction;
- e) prevent mucus secretion.

11. Beclomethasone dipropionate is commonly administered as:

Variants of answer:

- a) intravenously;
- b) subcutaneously;
- c) aerosolised steroids;
- d) oral preparation;
- e) intramuscularly.

12. Triamcinolone acetonide is a:

Variants of answer:

- a) corticosteroid;
- b) alpha-adrenergic receptor agonists;
- c) beta-adrenergic receptor agonist;
- d) anticholinergic;
- e) NSAID.

13. Indications for inhalation glucocorticoids to the patients with bronchial asthma:

Variants of answer:

- a) mild episodic course;
- b) mild persisting course;
- c) course of middle severity;
- d) all above;
- e) irreversible or partly reversible bronchial obstruction.

14. Glucocorticoid with minimal systemic bioaccessibility:

Variants of answer:

- a) prednisolone;
- b) dexamethasone;
- c) beclomethasone dipropionate;
- d) fluticasone propionate;
- e) methylprednisolone.

15. Side-effect of inhalation glucocorticosteroids:

Variants of answer:

- a) candidiasis of mouth cavity;
- b) insufficiency of adrenal cortices;
- c) osteoporosis;
- d) hyperglycemia;
- e) glaucoma.

16. Treatment of acute attack of bronchial asthma include:

Variants of answer:

- a) to increase multiplicity of inhalations beta2-agonists;
- b) to increase dose of inhalation glucocorticoids;
- c) to take glucocorticoids in tablets;
- d) to perform all indicated above measures in pointed sequence;
- e) relaxation of airway smooth muscle.

17. Acute management of bronchial asthma include all the following, except:

Variants of answer:

- a) a high concentration of oxygen to achieve oxygen saturation of $> 90\%$;
- b) short-acting inhaled beta-2-agonists;
- c) a slow infusion of aminophylline with monitoring blood values;
- d) a rapid infusion of dopamine;
- e) all above.

18. Bronchial asthma may be due to:

Variants of answer:

- a) acetylsalicylic acid (aspirin);
- b) milk of magnesia;
- c) famotidine;
- d) diphenhydramine;
- e) captopril.

19. Features of acetylsalicylic acid-associated bronchial asthma:

Variants of answer:

- a) intolerance of nonsteroid anti-inflammatory agents;
- b) polypous rhinosinusitis;
- c) presence of asphyxia attacks;
- d) all above;
- e) neither.

20. All forms of pneumonia are belong to modern classification, except:

Variants of answer:

- a) in out-patients;
- b) nosocomial;
- c) in immune compromised patients;
- d) due to aspiration;
- e) interstitial.

21. Antibiotic for treatment of the out-patient with pneumonia caused by *Str. pneumoniae*:

Variants of answer:

- a) amoxicillin;
- b) ceftriaxone;

- c) ampicillin;
- d) levofloxacin;
- e) cotrimoxazol.

22. Treatment of syndrome of disseminated intravascular coagulation (DIC) in toxic shock in patient with pneumonia must include:

Variants of answer:

- a) heparin;
- b) heparin + fresh-frozen plasma;
- c) dopamine;
- d) dobutamine;
- e) prednisolone.

23. The cause of long current of pneumonia is:

Variants of answer:

- a) untimely begun and irrational empirical antibacterial therapy;
- b) the presence of accompanying diseases of respiratory organs;
- c) elderly and senile age;
- d) excessive body weight;
- e) all above.

24. What antibiotics are usually administered empirically in severe pneumonia:

Variants of answer:

- a) amoxicillin;
- b) ampicillin;
- c) levofloxacin + ceftriaxone;
- d) clarithromycin;
- e) ceftriaxone + amoxicillin.

25. What method is the main for establishing etiology of lungs dissemination:

Variants of answer:

- a) transthoracic paracentesis biopsy of the lungs;
- b) video thoracoscopy with biopsy;
- c) open biopsy of lungs;
- d) bronchoscopy with transbronchial biopsy;
- e) Chest X-ray.

26. All X-ray signs can differentiate pulmonary edema from disseminated tuberculosis of the lungs except:

Variants of answer:

- a) intensification of pulmonary drawing in lower and middle parts of the lungs;
- b) focal shadow in middle part of the lungs;
- c) appearance of dissemination mainly in upper parts of the lungs;

- d) appearance of exudate in pleural cavities;
- e) shadow in lower part of the lungs.

27. All signs are difference of pulmonary affection in systemic connective tissue diseases and disseminated tuberculosis of the lungs, except:

Variants of answer:

- a) progressive respiratory insufficiency;
- b) appearance of mycobacteria of tuberculosis in sputum;
- c) diffuse reticular fibrosis;
- d) absence of efficiency of antibacterial therapy;
- e) intensification of pulmonary drawing in lower and middle parts of the lungs.

28. All signs are features of cancer of lungs except:

Variants of answer:

- a) persistent dry cough;
- b) bilateral dissemination in the lungs with clear contours without tendency to fusion and decomposition;
- c) acute onset of disease;
- d) revealing initial localization of tumor;
- e) increasing dyspnea and pain in the chest.

29. Diagnostic criteria of Gudpastcher's syndrome are all except:

Variants of answer:

- a) acute onset, more frequent after acute respiratory disease, overcooling;
- b) progressive dyspnea, cough, blood spitting, excessive moist râles in lower part of the lungs;
- c) subacute onset with insignificant symptoms of lungs affection;
- d) hematuria;
- e) multiple confluent foci in both lungs.

30. In recurrence of pneumonia in several months it is necessary to exclude first of all:

Variants of answer:

- a) pulmonary thromboembolism;
- b) central cancer of the lungs;
- c) tuberculosis of the lungs;
- d) prolonged pneumonia;
- e) stenosis of tricuspid valve.

31. In HIV infected patient appeared dry cough, breathlessness in a rest. On X-ray of the lungs there is bilateral total darkening of «frosted glass» type. What drug is it necessary to administer:

Variants of answer:

- a) amoxicillin;
- b) levofloxacin;

- c) ceftriaxone;
- d) cotrimoxasol;
- e) ampicillin.

32. The disease is associated with blood in the sputum:

Variants of answer:

- a) fibrocavernous tuberculosis of lungs;
- b) primary emphysema of lungs;
- c) chronic obstructive pulmonary disease (COPD);
- d) stenosis of tricuspid valve;
- e) pneumonia.

33. Which non-pulmonary disease can cause pleural exudate:

Variants of answer:

- a) tumor of ovaries;
- b) diverticulosis of the small intestine;
- c) acute cholecystitis;
- d) acute appendicitis;
- e) chronic hepatitis.

34. Hemorrhagic pleuritis more often occur in:

Variants of answer:

- a) infiltrative tuberculosis of lungs;
- b) pneumonia caused *Clebsiella*;
- c) Charge-Stross syndrome;
- d) pulmonary cancer;
- e) all above.

35. There are excessive amount of lymphocytes in pleural exudate in:

Variants of answer:

- a) tuberculosis;
- b) pulmonary cancer;
- c) rheumatoid arthritis;
- d) pneumonia;
- e) tumor of ovaries.

36. Pathogenesis of primary emphysema:

Variants of answer:

- a) chronic pulmonary disease;
- b) functional overstraining of respiratory apparatus;
- c) age involution of elastic pulmonary tissue;
- d) deficiency of alpha 1-antitrypsin;
- e) increased mucociliary clearance.

37. Diagnostic criteria for acute respiratory distress syndrome is:

Variants of answer:

- a) $\text{PaO}_2/\text{FiO}_2$ ratio is ≤ 100
- b) $\text{PaO}_2/\text{FiO}_2$ ratio is ≤ 200
- c) $\text{PaO}_2/\text{FiO}_2$ ratio is ≤ 300
- d) $\text{PaO}_2/\text{FiO}_2$ ratio is ≤ 400
- e) $\text{PaO}_2/\text{FiO}_2$ ratio is ≤ 500

38. More informative method for diagnostic of pulmonary embolism:

Variants of answer:

- a) ventilation perfusion mismatch;
- b) conventional angiography;
- c) chest CT;
- d) MRI angiography;
- e) chest X-ray.

39. ECG pattern seen in pulmonary embolism is:

Variants of answer:

- a) S3Q3T1;
- b) S1Q1T3;
- c) S1Q3T3;
- d) S3Q3T3;
- e) no any changes on ECG.

40. A 40 years old man presented with repeated episodes of bronchospasm and hemoptysis. Chest X-ray revealed bronchiectasis near the root lungs. The most likely diagnosis is:

Variants of answer:

- a) sarcoidosis;
- b) idiopathic pulmonary fibrosis;
- c) extrinsic allergic alveolitis;
- d) bronchopulmonary aspergillosis;
- e) central cancer of the lungs.

TESTS IN CARDIOLOGY

41. Sound of opening mitral valve appears in:

Variants of answer:

- a) mitral insufficiency;
- b) mitral stenosis;
- c) arterial hypertension;
- d) pulmonary hypertension;
- e) myocardial infarction.

42. The most frequent cause of mitral stenosis:

Variants of answer:

- a) atherosclerotic change of valve;
- b) congenital heart defect;
- c) infectious endocarditis;
- d) rheumatic heart disease;
- e) myocardial infarction.

43. Insufficiency of aortic valve is characterized by:

Variants of answer:

- a) high systolic and diastolic blood pressure;
- b) normal systolic and high diastolic blood pressure;
- c) normal or high systolic blood pressure and decreased diastolic blood pressure;
- d) blood pressure is not changed;
- e) pulmonary hypertension.

44. What congenital heart disease is characterized with recurring circulation of additional volume of blood in the lungs:

Variants of answer:

- a) coarctation of aorta;
- b) defect of intraatrial septum;
- c) transposition of magistral vessels;
- d) open arterial (Botallo's) duct;
- e) defect of intraventricular septum.

45. Decrease or delay of pulse wave in the femoral artery in comparison with radial artery is observed in:

Variants of answer:

- a) pheochromocytoma;
- b) coarctation of aorta;
- c) atherosclerosis of aorta;
- d) Itsenko-Cushing's syndrome;
- e) arterial hypertension.

46. A 20 years young man presents with exertional dyspnoea, headache, and giddiness. On examination, there is hypertension and L VR. X-ray picture shows notching of the anterior ends of the ribs. The most like diagnosis is:

Variants of answer:

- a) pheochromocytoma;
- b) carcinoid syndrome;
- c) coarctation of the aorta;
- d) superior mediastinal syndrome;
- e) infective endocarditis.

47. In infective endocarditis more often are affected the following valves:

Variants of answer:

- a) valve of pulmonary artery;
- b) aortic valve;
- c) mitral valve;
- d) tricuspid valve;
- e) b, d are correct.

48. Secondary infective endocarditis means:

Variants of answer:

- a) infective endocarditis in patient with MI;
- b) infective endocarditis in patient with pulmonary abscess;
- c) infective endocarditis in patient with immunodeficiency;
- d) infective endocarditis in patient with valve prolapse;
- e) infective endocarditis in patient with sepsis.

49. Most characteristic findings of infective endocarditis in patient intravenous narcotic drug addicts:

Variants of answer:

- a) stenosis of mitral valve with diastolic murmur near the apex with pulmonary hypertension and blood spitting;
- b) frequent affection of aortic valve with systolic murmur in the second intercostal area to the right of sternum being conducted to the vessels of the neck, with symptoms coronary and cerebral hypoperfusion;
- c) manifestation of the disease with clinic of acute glomerulonephritis;
- d) frequent affection of tricuspid valve with systolic murmur in its projection; thromboembolic syndrome, infarct-pneumonia and respiratory insufficiency being developed;
- e) developing dilatation of all cardiac chambers with decreasing its systolic and diastolic function, appearance of severe heart failure and thromboembolic syndrome.

50. In treatment of infective endocarditis the most effective are:

Variants of answer:

- a) nonsteroid anti-inflammatory drugs;
- b) corticosteroids;
- c) cytostatics;
- d) antibiotics;
- e) antiviral drugs.

51. Flat small vegetations in the cusps of both tricuspid and mitral valves are seen in:

Variants of answer:

- a) viral myocarditis;
- b) Libmann Sach's endocarditis;

- c) rheumatic carditis;
- d) infective endocarditis;
- e) coarctation of aorta.

52. All of the following are clinical features of myxoma, except:

Variants of answer:

- a) fever;
- b) clubbing;
- c) hypertension;
- d) embolic phenomenon;
- e) syncope.

53. Glucocorticoids in nonrheumatic myocarditis are administered in case of:

Variants of answer:

- a) arrhythmia;
- b) high activity of inflammatory process;
- c) congested process in pulmonary circulation;
- d) decreasing fraction of output of left ventricle below 60 %;
- e) respiratory failure.

54. In arterial hypertension the following organs are the organs-targets:

Variants of answer:

- a) kidneys, liver, brain, retina, heart;
- b) heart, retina, skeleton muscles, brain;
- c) arteries, liver, kidneys, heart, retina;
- d) heart, kidney, brain, arteries, retina;
- e) heart, liver, arteries, brain, kidneys.

55. Malignant hypertension can lead to all of the following except:

Variants of answer:

- a) hypertensive retinopathy;
- b) respiratory failure;
- c) renal failure;
- d) hemolytic blood picture;
- e) embolic phenomenon.

56. Symptomatic arterial hypertension is not characteristic for:

Variants of answer:

- a) stenosing atherosclerosis of renal arteries;
- b) diabetes mellitus;
- c) Konn's syndrome;
- d) fibromuscular dysplasia of renal arteries;
- e) chronic adrenal insufficiency (Addison's disease).

57. To the patient suffering both from arterial hypertension and bronchial asthma are contraindicated:

Variants of answer:

- a) verapamyl;
- b) hydrochlorothiazide;
- c) metoprolol;
- d) captopril;
- e) atorvastatin.

58. Contraindications for administration of ACE inhibitors are:

Variants of answer:

- a) diabetic nephropathy;
- b) bilateral stenosis of renal artery;
- c) congestive heart failure;
- d) obstructive diseases of the lungs;
- e) diabetes mellitus.

59. The most informative sign of atherogenic dyslipidemia is increasing level of:

Variants of answer:

- a) HDL;
- b) LDL;
- c) total cholesterol;
- d) atherogenic coefficient;
- e) ApoAprotein.

60. What are fat globules consisting of triglycerides, cholesterol and phospholipids surrounded by a coat:

Variants of answer:

- a) apolipoproteins;
- b) low-density lipoproteins (LDLs);
- c) very low density lipoproteins (VLDLs);
- d) chylomicrons;
- e) apoAprotein.

61. Drugs that affect the level of HDL do not include:

Variants of answer:

- a) beta-blockers;
- b) fibrates;
- c) statins;
- d) nicotinic acid derivatives;
- e) ω -3- polyunsaturated fatty acids.

62. Adverse effects of statins include:

Variants of answer:

- a) decrease in ABP;
- b) polyuria;
- c) cough;
- d) hypertransaminasemia (increase in the levels of ALT, AST);
- e) nephropathy.

63. A mean therapeutic dose of atorvastatin is:

Variants of answer:

- a) 5 mg BD;
- b) 10 mg OD;
- c) 20 mg OD;
- d) 5 mg OD;
- e) 500 mg per day.

64. Recommended doses of omega-3 polyunsaturated fatty acids for a decrease in the level of triglycerides are:

Variants of answer:

- a) 200–400 mg per day;
- b) 2,000–4,000 mg per day;
- c) 500 mg per day;
- d) 10 mg per day;
- e) 5 mg per day.

65. What feature is the most characteristic for hypertrophic cardiomyopathy with obstruction of efferent tract of left ventricle in contradiction to myocardial hypertrophy in ischemic heart disease:

Variants of answer:

- a) amplitude signs of myocardial hypertrophy of left ventricle on ECG;
- b) cardiomegaly on X-ray examination of the heart;
- c) correlation of thickness of interventricular septum and posterior wall of left ventricle on echocardiogram;
- d) systolic murmur in pulmonary artery;
- e) arterial hypertension.

66. ST segment elevation is seen in:

Variants of answer:

- a) Prinzmetal's angina;
- b) acute pericarditis;
- c) acute MI;
- d) all above;
- e) arterial hypertension.

67. Distinguishing feature of stable stenocardia of exertion:

Variants of answer:

- a) no any connection of attack with emotional stress;
- b) an attack is connected with physical load;
- c) an attack occurs at any time of a day or night;
- d) awaiting of appearing attack;
- e) no any changes on ECG.

68. The number of functional classes of stable angina pectoris according to classification of Canadian cardiovascular society is:

Variants of answer:

- a) two;
- b) three;
- c) four;
- d) five;
- e) six.

69. The signs of the second functional class of stable stenocardia:

Variants of answer:

- a) considerable limitation of physical activity;
- b) light limitation of usual activity, going up more than one stair don't cause any symptoms;
- c) usual physical load does not cause angina pectoris attack;
- d) signs of hypertrophy of left ventricle on ECG;
- e) breathlessness in the rest.

70. Arresting of angina pectoris attack:

Variants of answer:

- a) isosorbinate in dose 10–20 mg 2–4 times a day;
- b) molsidominin dose 2–4 mg 2–3 times a day;
- c) nitroglycerine 0,5 mg sublingual;
- d) captopril;
- e) bisoprolol.

71. The main pathogenic mechanism of acute coronary syndrome:

Variants of answer:

- a) brief (15–20 min) spasm of coronary arteries;
- b) anomaly of coronary arteries;
- c) acute dilation of coronary arteries;
- d) coronaritis;
- e) period of exacerbation of ischemic heart disease.

72. Coronary blood flow is normally:

Variants of answer:

- a) higher during ventricular systole than ventricular diastole;
- b) decreased by excitation of sympathetic nerves to the heart;
- c) equal in the subendocardium and subepicardium during ventricular systole;
- d) proportional to myocardial oxygen consumption;
- e) a and c are correct.

73. Coronary steal commonly is seen after using:

Variants of answer:

- a) atenolol;
- b) diltiazem;
- c) nitroglycerine;
- d) dipyridamole;
- e) captopril.

74. When is increasing activity of CK-MB and its MB-fraction in myocardial infarction revealed:

Variants of answer:

- a) from initial hours;
- b) from the second day of the disease;
- c) from the third day;
- d) from the fifth day;
- e) from the seventh day.

75. A myocardial infarct showing early granulation tissue has most likely occurred:

Variants of answer:

- a) less than 1 hours;
- b) within 24 hours;
- c) within 1 week;
- d) within 1 month;
- e) within 72 hours.

76. Duration of subacute stage of myocardial infarction:

Variants of answer:

- a) till 3 days;
- b) till 10 days;
- c) till 2–3 weeks;
- d) till 1–2 months;
- e) till 1 week.

77. Myocardial infarction appearing after 4 weeks is:

Variants of answer:

- a) repeated;
- b) recurrent;
- c) relapsing;
- d) chronic;
- e) acute.

78. In what term is it possible to carry out thrombolytic therapy in myocardial infarction:

Variants of answer:

- a) during 6 hours;
- b) during 24 hours;
- c) during 48 hours;
- d) during a week;
- e) during 3 days.

79. Thrombolytic drugs include all of the following except:

Variants of answer:

- a) alteplase;
- b) streptokinase;
- c) pancytrate;
- d) tenecteplase;
- e) urokinase.

80. Indication for CABG in acute myocardial infarction is:

Variants of answer:

- a) myocardial infarction complicated with cardiogenic shock;
- b) myocardial infarction during initial 6 hours from appearance of symptoms with unstable dynamics and if it is impossible to carry out thrombolysis;
- c) myocardial infarction complicated with rupture of interventricular septum;
- d) multiple critical affection of coronary arteries;
- e) all above.

81. Frequent complication in acute period of myocardial infarction:

Variants of answer:

- a) hyperglycemia;
- b) shock (reflective, cardiogenic, arrhythmogenic);
- c) anemia;
- d) psychical impairments;
- e) hypertension.

82. Frequent complication in subacute period of transmural myocardial infarction:

Variants of answer:

- a) thrombendocarditis with thromboembolic syndrome;
- b) anemia;
- c) Felti's syndrome;
- d) psychical impairments;
- e) acute aneurysm of the heart.

83. What features are characteristic of cardiogenic shock:

Variants of answer:

- a) systolic blood pressure less than 90 mm of mercury, reduction of diuresis, cold moist skin, metabolic acidosis, confusion consciousness;
- b) systolic blood pressure less than 90 mm of mercury, reduction of diuresis, cold moist skin, metabolic alkalosis, psychomotor excitement;
- c) diastolic blood pressure less than 90 mm of mercury, reduction of diuresis, cold moist skin, metabolic acidosis, confusion consciousness;
- d) systolic blood pressure less than 90 mm of mercury, normal diuresis, dry skin, confusion consciousness;
- e) psychical impairments.

84. It is not characteristic for acute left ventricular failure:

Variants of answer:

- a) swelling of cervical veins;
- b) orthopnea;
- c) appearance and growth of peripheral edema;
- d) increase and decrease of blood pressure;
- e) decrease of ejection fraction of left ventricle.

85. The most frequent cause of acute right ventricular failure is:

Variants of answer:

- a) attack of bronchial asthma;
- b) spontaneous pneumothorax;
- c) thromboembolism of pulmonary artery;
- d) massive atelectasis;
- e) quick and considerable accumulation of fluid in pleural cavity.

86. The main index of control efficiency and safety of therapy by heparin in acute coronary syndrome is:

Variants of answer:

- a) cholesterin;
- b) fibrinogen;

- c) activated partial thromboplastin time or INR;
- d) prothrombin index;
- e) time of coagulation.

87. The most frequent form of rhythm impairment in patients with WPW-syndrome:

Variants of answer:

- a) paroxysmal form of atrial fibrillation;
- b) paroxysmal form of atrial flutter;
- c) paroxysmal supraventricular tachycardia;
- d) paroxysmal ventricular tachycardia;
- e) ventricular extrasystoles.

88. Carotid sinus massage will terminate:

Variants of answer:

- a) atrial flutter;
- b) atrial fibrillation;
- c) supraventricular extrasystoles;
- d) paroxysmal supraventricular tachycardia;
- e) paroxysmal ventricular tachycardia.

89. Drug of choice for paroxysmal supraventricular tachycardia is:

Variants of answer:

- a) digoxin;
- b) propranolol;
- c) adenosine;
- d) diltiazem;
- e) isosorbide dinitrate.

90. Pacemaker is indicated in which of the following condition:

Variants of answer:

- a) acute myocardial infarction with first degree AV block;
- b) acute myocardial infarction with fascicular block;
- c) sick sinus syndrome;
- d) all above;
- e) acute aneurysm of the heart.

91. Drug of choice for paroxysmal ventricular tachycardia is:

Variants of answer:

- a) strophanthin;
- b) propranolol;
- c) lidocaine;

- d) verapamyl;
- e) atropine.

92. Drug of choice for paroxysm of atrial fibrillation is:

Variants of answer:

- a) amiodarone 200 mg/day;
- b) enalapril 5 mg/day;
- c) omeprazole 20 mg/day;
- d) amiodarone 1 200 mg/day;
- e) lidocaine.

93. Adverse effects of long-term amiodarone treatment include all of the following except:

Variants of answer:

- a) hypothyroidism;
- b) thyrotoxicosis;
- c) lung fibrosis;
- d) leukocytosis;
- e) hyperpigmentation of skin.

94. Drug of choice for permanent tachysystolic form of atrial fibrillation in patients with chronic heart failure:

Variants of answer:

- a) verapamyl;
- b) amyodaron;
- c) propranolol;
- d) digoxin;
- e) lidocaine.

95. Digoxin is contraindicated in:

Variants of answer:

- a) supraventricular tachycardia;
- b) atrial fibrillation;
- c) congestive heart failure;
- d) hypertrophic obstructive cardiomyopathy;
- e) thyrotoxicosis.

96. Symptoms of overdose with cardiac glycosides include all of the following except:

Variants of answer:

- a) bradycardia;
- b) visual disturbances (xanthopsia);

- c) nausea;
- d) tachycardia;
- e) abdominal pain.

97. Drug of choice for paroxysmal form of atrial fibrillation in myocardial infarction:

Variants of answer:

- a) novocainamid;
- b) aethacizin;
- c) propranolol;
- d) digoxin;
- e) verapamyl.

98. Nonselective beta-adrenobloker:

Variants of answer:

- a) isosorbid dinitrate;
- b) sotalol;
- c) diltiazem;
- d) verapamil;
- e) digoxin.

99. Heparin is prescribed:

Variants of answer:

- a) BD subcutaneously;
- b) QDS subcutaneously;
- c) perorally;
- d) intramuscularly;
- e) all above.

100. Direct anticoagulants includes:

Variants of answer:

- a) nadroparine;
- b) warfarin;
- c) alteplase;
- d) propranolol;
- e) enalapril.

101. Indirect anticoagulants includes:

Variants of answer:

- a) heparin;
- b) azathioprine;
- c) warfarin;

- d) enalapril;
- e) alteplase.

102. Warfarin treatment is controlled with:

Variants of answer:

- a) platelet count;
- b) prothrombin time;
- c) glucose level;
- d) INR;
- e) ECG.

103. Indications for the treatment with indirect anticoagulants:

Variants of answer:

- a) acute phase of myocardial infarction;
- b) paroxysm of supraventricular tachycardia;
- c) hypertensive crisis;
- d) permanent form of atrial flutter;
- e) increase in ABP.

104. Adverse effects of anticoagulants include:

Variants of answer:

- a) thrombosis;
- b) bleeding;
- c) increase in ABP;
- d) ST segment depression on ECG;
- e) paroxysm of supraventricular tachycardia.

105. Biochemical marker of chronic heart failure is:

Variants of answer:

- a) availability of antibodies to tissue transglutaminase;
- b) brain natriuretic peptide (BNP);
- c) glycolic hemoglobin;
- d) gamma glutamyltranspeptidase;
- e) procalcitonin.

106. Edema may be result:

Variants of answer:

- a) decreased interstitial fluid oncotic pressure;
- b) decreased capillary hydrostatic pressure;
- c) increased lymph flow;
- d) decreased plasma albumin concentration;
- e) a and c are correct.

107. Diuretic drug increasing life-span of patients with chronic heart failure:

Variants of answer:

- a) furosemid;
- b) captopril;
- c) spironolacton;
- d) molsilomin;
- e) hydrochlorthiasid.

108. The aim of carrying out veloergometry:

Variants of answer:

- a) determination of average blood pressure in response to physical load;
- b) evaluation of changes of ST segment;
- c) determining individual tolerance to physical load;
- d) evaluation of variability of cardiac rhythm;
- e) a, d are correct.

109. What condition is not contraindication for transplantation of the heart in patients with chronic heart failure:

Variants of answer:

- a) thromboembolism of pulmonary artery;
- b) ejection fraction of left ventricle $\leq 25\%$;
- c) index of mass of the body $> 45 \text{ kg/m}^2$;
- d) glomerular filtration rate $\leq 30 \text{ ml/min}$;
- e) dependence from artificial pulmonary ventilation.

TESTS IN FUNCTIONAL DIAGNOSTICS

110. Determination of sinus bradycardia:

Variants of answer:

- a) slowing down of cardiac rhythm less than 80 a minute;
- b) slowing down of cardiac rhythm less than 60 a minute;
- c) blocking impulses of SA node;
- d) strengthening function of automatism AV-node;
- e) all above.

111. Determination of syndrome weakness of sinus node:

Variants of answer:

- a) ectopic focus of automatism in atrium;
- b) strengthening function of automatism AV-node;
- c) decreasing of efficiency of SA node to generate impulses;
- d) slowing down of cardiac rhythm less than 80 a minute;
- e) all above.

112. QRS complex duration on ECG is:

Variants of answer:

- a) 0,02 sec;
- b) 0,04 sec;
- c) 0,09–0,1 sec;
- d) 0,14 sec;
- e) 0,01 sec.

113. Normal automatism of SA node is:

Variants of answer:

- a) 40–50 impulses per a minute;
- b) 50–60 impulses per a minute;
- c) 60–80 impulses per a minute;
- d) 80–100 impulses per a minute;
- e) 20–30 impulses per a minute.

114. ECG signs of atrial fibrillation:

Variants of answer:

- a) waves f;
- b) different intervals R-R;
- c) different amplitude of complex QRS (alternation);
- d) absence of P waves;
- e) all above;

115. Atrial flutter means:

Variants of answer:

- a) irregular contractions of groups of atrial cardiomyocytes with frequency 400–700 per minute;
- b) regular contractions of groups of atrial cardiomyocytes with frequency 250–350 per minute;
- c) regular contractions of groups of ventricular cardiomyocytes with frequency till 250 per minute;
- d) irregular contractions of groups of ventricular cardiomyocytes with frequency till 500 per minute;
- e) strengthening function of automatism AV-node.

116. Supraventricular extrasystoles are from:

Variants of answer:

- a) SA node;
- b) bundle of His;
- c) AV-node;
- d) left ventricle of heart;
- e) right ventricle of heart.

117. The complete compensatory pause observed in:

Variants of answer:

- a) supraventricular extrasystoles;
- b) extrasystoles from A-V node with previous excitation of ventricles;
- c) group extrasystoles;
- d) ventricular extrasystoles;
- e) blocked extrasystoles.

118. ECG signs of AV blockade of the third degree:

Variants of answer:

- a) increasing of interval PQ;
- b) gradual increasing of interval PQ with following falling out of complex QRS;
- c) independent atrioventricular rhythm, the amount of ventricular complexes is more than atrial;
- d) independent atrioventricular rhythm, the amount of P waves more than complexes QRST;
- e) absence of P waves.

119. In healthy people can occur:

Variants of answer:

- a) supraventricular tachycardia;
- b) ventricular tachycardia;
- c) migration of atrial pacemaker;
- d) frequent (more than 30 per hour) supraventricular extrasystoles;
- e) all above.

120. Transesophageal ectrocardiostimulation not used:

Variants of answer:

- a) for evaluation of function of SA node automatism;
- b) for amplification of geneses of paroxysmal atrioventricular tachycardia;
- c) for treatment;
- d) for diagnostics of ischemic heart disease;
- e) for prevention of rhythm impairment.

121. Contraindications for carrying out transesophageal electrocardiostimulation are:

Variants of answer:

- a) impossibility of introducing electrode into the esophagus (nausea, vomiting);
- b) diseases of esophagus(diverticula, tumours, etc);
- c) diseases of rhinopharynx;
- d) acute period of myocardial infarction;
- e) all above.

122. Positive veloergometry test:

Variants of answer:

- a) test is stopped because chest pain appear in patient without ECG-signs of myocardial ischemia;
- b) during carrying out of test not appear of depression ST;
- c) test is stopped because appear of depression ST more than 1 mm in the point «i» on ECG;
- d) different amplitude of complex QRS (alternation);
- e) all above.

123. Positive test with physical load:

Variants of answer:

- a) heartbeat;
- b) breathlessness;
- c) fatigue;
- d) elevation or depression of segment ST > 1 mm;
- e) isolated inversion of T wave.

124. For diagnostic of arrhythmias related with tonus of parasympathetic nervous system is used pharmacologic test with:

Variants of answer:

- a) nitroglycerin;
- b) atropine;
- c) kalium chloride;
- d) propranolol;
- e) captopril.

125. Hypertrophy of left ventricle is characterized by:

Variants of answer:

- a) high R wave in leads V5, V6, EAH to the left;
- b) $R V6 > R V5 > R V4$; elevation ST in leads V1, V2;
- c) deep S in V1, V2; decrease of segment ST and negative T in V5, V6;
- d) all above;
- e) different amplitude of complex QRS (alternation).

126. Specific changes of ECG for angina pectoris:

Variants of answer:

- a) pathologic Q wave;
- b) elevation or depression of segment ST, appearance of negative T wave;
- c) AV-blockade;
- d) temporary blockade of the bundle of His;
- e) blocking impulses of SA node.

127. Specific changes of ECG for myocardial infarction:

Variants of answer:

- a) pathologic Q wave, concordant elevation ST;
- b) isoelectric segment ST;
- c) discordant depression of segment ST;
- d) low voltage of P wave;
- e) different amplitude of complex QRS (alternation).

128. The feature of subacute stage of myocardial infarction is:

Variants of answer:

- a) monophasic curve;
- b) elevation ST;
- c) pathologic Q wave;
- d) ST on isoline, pathologic Q wave;
- e) all above.

129. Reciprocal changes in myocardial infarction of posterior wall of the left ventricle:

Variants of answer:

- a) elevation of segment ST in leads V1–V4;
- b) depression of segment ST in leads V1–V3;
- c) increase of amplitude R in leads V1–V3;
- d) appearance of Q wave in leads V1–V4;
- e) all above.

130. Features of myocardial infarction of posterior wall of left ventricle:

Variants of answer:

- a) elevation of segment ST in leads V1–V4;
- b) depression of segment ST in leads V1–V3;
- c) pathologic Q in II, III, avF, increase of amplitude R in leads V1–V3;
- d) appearance of Q wave in leads V1–V4;
- e) all above.

131. In myocardial infarction of right ventricle ECG changes will be in the following leads:

Variants of answer:

- a) V1–V3, I–II;
- b) avL, V5–V6;
- c) V7–V9, D, A;
- d) avR, V2R–V4R;
- e) all above.

132. In myocardial infarction of the anterior wall left ventricle ECG changes will be in the following leads:

Variants of answer:

- a) I, II, aVL;
- b) V1–V3;
- c) I, aVL;
- d) V3, V4;
- e) all above.

133. In myocardial infarction of the lateral wall left ventricle ECG changes will be in the following leads:

Variants of answer:

- a) I, II, aVL;
- b) V1–V3;
- c) V3, V4;
- d) aVL, V5, V6;
- e) all above.

134. Signs of circular myocardial infarction are revealed in the following leads:

Variants of answer:

- a) I, avF, V1–V2;
- b) II, V5–V6;
- c) avR, V7–V8;
- d) II, III, avF, V3–V6, D, A, I;
- e) all above.

135. ECG-signs of chronic aneurysm of left ventricle:

Variants of answer:

- a) depression of segment ST;
- b) blockade of the left bundle of His;
- c) changes of acute stage of myocardial infarction remain the whole life the patient;
- d) high amplitude R;
- e) absence of P waves.

136. Affection of what element conductive system of the heart is the most dangerous in myocardial infarction:

Variants of answer:

- a) SA-node;
- b) AV-node;
- c) atrial bundles;
- d) bundle of His;
- e) all above.

137. ECG signs of total blockade of right bundle of His:

Variants of answer:

- a) sudden EAH to the left , usual form and duration of QRS complexes;
- b) M-shaped QRS complex in leads V1,2, wide wave S in leads V5,6, duration QRS $\geq 0,12$ sec in all leads;
- c) widen deformed complexes QRS: in leads V1,2 like QS, in V5,6, M-shaped, discordance of segment ST и T wave in all leads;
- d) depression of segment ST;
- e) different amplitude of complex QRS (alternation).

138. Frederic's syndrome is a combination of:

Variants of answer:

- a) syndrome WPW and AV blockade of the third degree;
- b) atrial fibrillation or flutter and AV blockade of the third degree;
- c) AV-blockade and blockade of left bundle of His;
- d) atrial fibrillation and blockade of bundle brunch His;
- e) supraventricular extrasystoles and AV blockade of the first degree.

TESTS IN GASTROENTEROLOGY

139. Painful swallowing is termed as:

Variants of answer:

- a) dysphagia;
- b) odynophagia;
- c) dyspepsia;
- d) ataxia;
- e) melena.

140. Peptic ulcer of the esophagus can be present in:

Variants of answer:

- a) osteoporosis;
- b) Reiter's syndrome;
- c) GERD;
- d) achalasia;
- e) chronic hepatitis.

141. Barrett's esophagus is:

Variants of answer:

- a) lower esophagus lined by columnar epithelium;
- b) upper esophagus lined by columnar epithelium;
- c) lower esophagus lined by ciliated epithelium;
- d) lower esophagus lined by pseudostratified epithelium;
- e) upper esophagus lined by ciliated epithelium.

142. The adenocarcinoma of esophagus more often develops in:

Variants of answer:

- a) Barrett's esophagus;
- b) long standing achalasia;
- c) corrosive stricture of esophagus;
- d) alcohol abuse;
- e) the adenocarcinoma of stomach.

143. Gastric juice contains:

- a) pepsin, lipase and rennin;
- b) trypsin, lipase and rennin;
- c) trypsin, lipase and lipase;
- d) trypsin, pepsin and rennin;
- e) amylase, lipase and trypsin.

144. Which is a specific gastric hormone:

Variants of answer:

- a) secretin;
- b) serotonin;
- c) amphetamine;
- d) trypsin;
- e) amylase.

145. Digestive hormones secretin and cholecystokinin are secreted by:

Variants of answer:

- a) oesophagus;
- b) stomach;
- c) ileum;
- d) duodenum;
- e) colon.

146. Which of the following symptoms is not associated with functional dyspepsia:

Variants of answer:

- a) feeling overly full after a normal meal;
- b) mild to severe epigastric pain;
- c) black tarry stools;
- d) epigastric burning sensations;
- e) rumination.

147. Dumping syndrome following subtotal gastrectomy has the following symptoms:

Variants of answer:

- a) hiccoughs and diarrhea;
- b) fatigue and abdominal pain;

- c) constipation and fever;
- d) diaphoresis and diarrhea;
- e) fever and diarrhea.

148. Which is the most common cause of peptic ulcer disease (PUD) of the following:

Variants of answer:

- a) smoking;
- b) NSAID's;
- c) Zollinger-Ellison syndrome;
- d) ethanol excess;
- e) family history of PUD.

149. Peptic ulcers may be caused by all of the following except:

Variants of answer:

- a) emotional stress;
- b) eating spicy foods;
- c) infection with *Helicobacter pylori*;
- d) long-term use of nonsteroidal anti-inflammatory agents (NSAIDS);
- e) gluten intolerance.

150. Which is the most common complication of peptic ulcer disease:

Variants of answer:

- a) perforation;
- b) gastric outlet obstruction;
- c) penetration;
- d) haemorrhage;
- e) cancer of the stomach.

151. In a case of hypertrophic pyloric stenosis, the metabolic disturbance is:

Variants of answer:

- a) respiratory alkalosis;
- b) metabolic acidosis;
- c) metabolic alkalosis with paradoxical aciduria;
- d) metabolic alkalosis with alkaline urine;
- e) respiratory alkalosis with alkaline urine.

152. Which is not correct regarding treatment of peptic ulcer disease:

Variants of answer:

- a) antacids are as effective as H₂ antagonists in healing ulcers;
- b) proton pump inhibitors show more rapid healing and pain relief over 2–4 weeks compared to H₂ antagonists;
- c) colloidal bismuth subcitrate will suppress *H.pylori* and chelate with the base of the ulcer to aid healing;

d) *H. pylori* eradication with omeprazole, Amoxil and metronidazole requires only 5 days of treatment;

e) *H. pylori* eradication with omeprazole, Amoxil and metronidazole requires 7–10–14 days of treatment.

153. Which of the following drugs is a proton pump inhibitor:

Variants of answer:

- a) ranitidine;
- b) sucralfate;
- c) misoprostol;
- d) omeprazole;
- e) almagel.

154. Proton pump inhibitors are most effective when they are given:

Variants of answer:

- a) after meals;
- b) shortly before meals;
- c) along with H₂ blockers;
- d) along with antacides;
- e) during prolonged fasting periods.

155. Which is not true of *H. pylori* infection:

Variants of answer:

- a) 80 % of patients with chronic infection *H. pylori* will develop ulcers;
- b) *H. pylori* is the most common cause of peptic ulcer disease;
- c) *H. pylori* is a risk factor for adenocarcinoma of the stomach;
- d) IgG antibody test will remain positive for up to 2 years post eradication limiting its usefulness;
- e) *H. pylori* may cause of anemia.

156. Which of the following listed drug is given with bismuth salt in *Helicobacter pylori* infection:

Variants of answer:

- a) antacids;
- b) antibiotics;
- c) ACE inhibitor;
- d) H₂-receptor antagonists;
- e) antiviral drugs.

157. The triad originally described by Zollinger-Ellison syndrome is characterized by:

Variants of answer:

- a) peptic ulceration, gastric hypersecretion, non beta cell tumour;
- b) peptic ulceration, gastric hypersecretion, beta cell tumour;

- c) peptic ulceration, achlorhydria, non beta cell tumour;
- d) peptic ulceration, achlorhydria, beta cell tumour;
- e) cancer of stomach, pancreas, liver.

158. Risk factor for development of gastric CA:

Variants of answer:

- a) blood group O;
- b) duodenal ulcer;
- c) intestinal hyperplasia;
- d) intestinal metaplasia type III;
- e) NSAID-gastropathy.

159. The premalignant condition with the highest probability of progression to malignancy is:

Variants of answer:

- a) dysplasia;
- b) hyperplasia;
- c) leukoplakia;
- d) erythroplakia;
- e) atrophy.

160. All the following indicates early gastric cancer except:

Variants of answer:

- a) involvement of mucosa;
- b) involvement of mucosa and submucosa;
- c) involvement of mucosa, submucosa and muscularis;
- d) involvement of mucosa, submucosa and adjacent lymph nodes;
- e) involvement of mucosa and adjacent lymph nodes.

161. Glisson's capsule is associated with:

Variants of answer:

- a) liver;
- b) pancreas;
- c) lung;
- d) kidney;
- e) spleen.

162. The function of bile salts is to:

Variants of answer:

- a) help in emulsification of fats;
- b) transport of fat in the blood;
- c) break a peptide in to oligopeptide and aminoacids;

- d) help in the formation of lipoproteins;
- e) transport of bilirubin.

163. Glycogen is:

Variants of answer:

- a) synthesised in liver, source of energy, forming bile and lipase;
- b) disaccharide stored in liver, reacts with ammonia to form protein;
- c) synthesised in blood, stored in liver, and muscle to provide glucose;
- d) polysaccharide synthesised and stored in liver;
- e) synthesised in muscle.

164. Secretion of cholecystokinin is for:

Variants of answer:

- a) controlling blood pressure;
- b) inducing peristalsis;
- c) bile functions;
- d) release of insulin;
- e) decreasing peristalsis.

165. Human digestive juice lacks:

Variants of answer:

- a) lactase;
- b) cellulase;
- c) amylase;
- d) sucrose;
- e) maltase.

166. What type of diet should be provided to the patient scheduled for oral cholecystogram on the evening before the test:

Variants of answer:

- a) low-protein;
- b) high-carbohydrate;
- c) fat-free;
- d) liquid;
- e) high-protein.

167. Which of the following causes hepatic granuloma:

Variants of answer:

- a) amiodarone;
- b) alcohol;
- c) cimetidine;
- d) metronidazole;
- e) acetaminophene.

168. Which is not a cause of unconjugated hyperbilirubinemia:

Variants of answer:

- a) sepsis;
- b) Gilberts syndrome;
- c) congestive cardiac failure;
- d) infectious mononucleosis;
- e) Rotor syndrome.

169. All of the following are features of obstructive jaundice except:

Variants of answer:

- a) normal alkaline phosphatase;
- b) mildly elevated serum aminotransferases level;
- c) clay colour stools;
- d) pruritis;
- e) elevated mainly conjugated bilirubin level.

170. Which is not a risk factor for gallstones:

Variants of answer:

- a) cystic fibrosis;
- b) congestive cardiac failure;
- c) familial tendency;
- d) diabetes;
- e) pregnancy.

171. About 80 % of gallstones are composed of:

Variants of answer:

- a) calcium;
- b) bile;
- c) bilirubin;
- d) hardened cholesterol;
- e) uric acid.

172. Antimitochondrial antibody is typically seen in:

- a) hepatic cirrhosis;
- b) cardiac cirrhosis;
- c) primary sclerosing cholangitis;
- d) primary biliary cirrhosis;
- e) hemochromatosis.

173. Enzyme specifically raised in chronic alcoholics:

Variants of answer:

- a) gamma-glutamyl transferase (GGT);
- b) alanine aminotransferase (ALT);

- c) aspartate aminotransferase (AST);
- d) ratio of AST: ALT;
- e) aldolase.

174. Which of the following terms is used to describe chronic liver disease in which scar tissue surrounds the portal areas:

Variants of answer:

- a) compensated cirrhosis;
- b) alcoholic cirrhosis;
- c) biliary cirrhosis;
- d) postnecrotic cirrhosis;
- e) viral cirrhosis.

175. Hereditary diseases associated with liver cirrhosis:

Variants of answer:

- a) Gilbert's disease;
- b) hemochromatosis;
- c) Marfan's syndrome;
- d) acromegaly;
- e) Crohn's disease.

176. Which is not a complication of hepatic cirrhosis:

Variants of answer:

- a) spontaneous bacterial peritonitis;
- b) hepatocellular carcinoma;
- c) thrombocytosis;
- d) portal hypertension;
- e) portal vein thrombosis.

177. Which statement regarding spontaneous bacterial peritonitis is incorrect:

Variants of answer:

- a) the yearly risk with ascites is about 30 %;
- b) diagnosis is confirmed by paracentesis with WBC > 1000/cubic mm, and PMN > 250/cubic mm;
- c) the most common bacteria are anaerobes;
- d) antibiotic choices include cefotaxime or ceftriaxone 2g/day;
- e) nonsurgical pathology.

178. Which of the following is an early sign of hepatic encephalopathy in a patient with cirrhosis of the liver:

Variants of answer:

- a) restlessness;
- b) asterixis;

- c) decreased serum ammonia levels;
- d) complaints of fatigue;
- e) unconsciousness.

179. Lactulose is prescribed for patients with hepatic encephalopathy to:

Variants of answer:

- a) increase red blood count;
- b) decrease the serum ammonia level;
- c) increase the protein level;
- d) decrease the white blood cell count;
- e) treatment of constipation.

180. Oral administration of neomycin is indicated in patients with portal systemic encephalopathy for:

Variants of answer:

- a) prevent sinusitis;
- b) destroy normal bacteria found in the bowel;
- c) prevent restlessness in the patient;
- d) prevent fluid retention and ascites;
- e) treatment pneumonia.

181. The digestion of protein is facilitated by:

Variants of answer:

- a) trypsin;
- b) amylase;
- c) secretin;
- d) lipase;
- e) cholecystokinin.

182. Which of the following is most likely to stimulate the pancreas to secrete increased amounts of bicarbonate:

Variants of answer:

- a) somatostatin;
- b) secretin;
- c) CCK;
- d) gastrin;
- e) motilin.

183. Which ones are absorbed in the alimentary tract without any breakdown:

Variants of answer:

- a) proteins;
- b) polysaccharides;
- c) fat soluble vitamins;

- d) albumin of egg;
- e) water soluble vitamins.

184. Disorders that increase risk for chronic pancreatitis include all of the following except:

Variants of answer:

- a) cystic fibrosis;
- b) hypercalcemia;
- c) excessive alcohol consumption;
- d) hyperthyroidism;
- e) obesity.

185. Which is not true of acute pancreatitis:

Variants of answer:

- a) alcohol is the most common cause;
- b) pain is usually severe and relieved by sitting forward;
- c) Cullen's sign is blue discolouration around umbilicus secondary to hemoperitoneum;
- d) amylase is less sensitive in alcoholic pancreatitis than gallstone pancreatitis;
- e) CT will be abnormal in the vast majority including mild disease.

186. Which of the following drugs is a not pancreatic enzymes:

Variants of answer:

- a) creon;
- b) pancitrate;
- c) mezim;
- d) mesalazine;
- e) pancreatin.

187. Pancreatic enzymes are most effective when they are given:

Variants of answer:

- a) after meals;
- b) 15 minutes before meals;
- c) during meals;
- d) during prolonged fasting periods;
- e) 45 minutes before meals.

188. Surgical removal of the distal ileum is most likely to impair the absorption of:

Variants of answer:

- a) peptides;
- b) sugars;
- c) iron;

- d) calcium;
- e) bile salts.

189. In irritable bowel syndrome (IBS):

Variants of answer:

- a) mucus may be passed rectally;
- b) bloody mucoid diarrhoea is common;
- c) treatment options include 5-ASA compounds;
- d) symptoms are unrelated to stressful life events;
- e) a gluten-free diet is first-line treatment.

190. The presence of mucus and pus in the stools suggests:

Variants of answer:

- a) disorder of the colon;
- b) intestinal malabsorption;
- c) inflammatory colitis;
- d) small bowel disease;
- e) maldigestion.

191. Symptoms of Crohn's Disease may include abdominal pain, rectal bleeding, diarrhea, and all of the following except:

Variants of answer:

- a) anemia;
- b) weight loss;
- c) joint pain;
- d) bradycardia;
- e) iritis, episcleritis.

192. Regional enteritis (Crohn's Disease) is characterised by:

Variants of answer:

- a) transmural thickening;
- b) diffuse involvement;
- c) exacerbations and remissions;
- d) severe diarrhoea;
- e) constipation.

193. Chronic ulcerative colitis usually starts in the:

Variants of answer:

- a) hepatic or splenic flexure;
- b) rectosigmoid area;
- c) transverse colon;
- d) terminal ileum;
- e) proximal ileum.

194. A 25 years women presents with bloody diarrhea and is diagnosed as a case of ulcerative colitis. Which of the following condition is not associated:

Variants of answer:

- a) sclerosing cholangitis;
- b) iritis;
- c) ankylosing spondylitis;
- d) pancreatitis;
- e) arthritis.

195. Granulomas are frequently found in:

Variants of answer:

- a) Crohn's disease;
- b) ulcerative colitis;
- c) both;
- d) neither;
- e) irritable bowel syndrome.

196. Which is true of the complications of Crohn's disease:

Variants of answer:

- a) perianal complications occur in 50 % of patients;
- b) gastrointestinal (GI) bleeding is common and often life-threatening;
- c) toxic megacolon occurs in 6 % but almost never perforates;
- d) there is no increased risk of neoplasm of GI tract unlike ulcerative colitis;
- e) stenosis is a common complication.

197. Which is incorrect regarding management of Crohn's disease:

Variants of answer:

- a) mesalazine has fewer side effects than sulphasalazine;
- b) azathioprine has been used in severe cases;
- c) metronidazole has a role in long-term treatment of perianal disease post-operatively to prevent relapse;
- d) corticosteroids have a proven role in maintenance therapy to prevent relapse;
- e) loperamide can be used to control diarrhoea.

198. Which is not true of pseudomembranous colitis:

Variants of answer:

- a) usually occurs following a course of antibiotic treatment;
- b) approx 25 % will resolve with supportive treatment only;
- c) vancomycin per os is the treatment of choice;
- d) the ELISA *Cl. difficile* toxin test is 60–90 % sensitive;
- e) it may rarely result in toxic megacolon and perforation.

199. Which is not true of diverticulitis:

Variants of answer:

- a) occurs in 10–25 % of patients with diverticulae;
- b) mostly occurs in the left side of the colon;
- c) urinary frequency, pyuria and dysuria is not uncommon;
- d) sigmoidoscopy is the best diagnostic tool at time of presentation;
- e) mild cases can be treated as outpatients with oral Amoxil plus clavulanic acid for 7 days.

200. Villi distended by histiocytes:

Variants of answer:

- a) celiac disease;
- b) Whipple's disease;
- c) both;
- d) neither;
- e) Crohn's disease.

201. The histological features of celiac disease include all of the following, except:

Variants of answer:

- a) crypt hyperplasia;
- b) increase in thickness of the mucosa;
- c) increase in intraepithelial lymphocytes;
- d) increase in inflammatory cells in lamina propria;
- e) decrease in thickness of the mucosa.

202. Persons with celiac disease cannot tolerate:

Variants of answer:

- a) gluten;
- b) lactose;
- c) peanuts;
- d) eggs;
- e) milk.

203. Which type of diarrhea is caused by increased production and secretion of water and electrolytes by the intestinal mucosa into the intestinal lumen:

Variants of answer:

- a) osmotic diarrhea;
- b) mixed diarrhea;
- c) secretory diarrhea;
- d) infection diarrhea;
- e) noninfection diarrhea.

204. Microscopic examination of stool in inflammatory diarrhea shows:

Variants of answer:

- a) no fecal leukocytes;
- b) mild or no increase in fecal lactoferrin;
- c) fecal polymorphonuclear leukocytes;
- d) presence of enterotoxin;
- e) erythrocytes.

205. A patient admitted with dehydration can have the following finding during the assessment:

Variants of answer:

- a) bradycardia;
- b) changes in mental status;
- c) bilateral crackles in the lungs;
- d) elevated blood pressure;
- e) oedema.

206. Loperamide is indicated in:

Variants of answer:

- a) watery diarrhea;
- b) patients with fever and loose stools;
- c) dysentery;
- d) typhoid fever;
- e) salmonellosis.

207. Profuse «rice-water» stools suggest:

Variants of answer:

- a) dysentery;
- b) cholera;
- c) typhoid;
- d) irritable bowel syndrome;
- e) Crohn's disease.

208. Which of the following listed is a risk factor for colorectal cancer:

Variants of answer:

- a) age younger than 40 years;
- b) low fat, low protein, high fibre diet;
- c) familial polyposis;
- d) history of lung cancer;
- e) history of stomach cancer.

TESTS IN NEPHROLOGY

209. How much nephrons contains approximately each kidney:

Variants of answer:

- a) 10 million;
- b) 1 million;
- c) 100,000;
- d) 10,000;
- e) 1,000.

210. Which of the following is not associated with the role of the kidneys:

Variants of answer:

- a) release of erythropoietin (hormone);
- b) release of renin (enzyme);
- c) release of vitamin E;
- d) activate vitamin D;
- e) secretion of hydrogen ions.

211. The primary function of the descending loop of Henle in the kidney is:

Variants of answer:

- a) reabsorption of sodium ions;
- b) reabsorption of water by osmosis;
- c) secretion of hydrogen ions;
- d) secretion of potassium ions;
- e) all above.

212. Juxtaglomerular cells combine with what kind cells to form the juxtaglomerular apparatus in the kidney.

Variants of answer:

- a) macula densa;
- b) renal pelvis;
- c) nephron;
- d) renal sinus;
- e) all above.

213. Normal bacterial number of urine:

Variants of answer:

- a) 10^5 of microorganisms in 1ml of urine;
- b) 10^6 of microorganisms in 1ml of urine;
- c) 10^7 of microorganisms in 1ml of urine;
- d) 10^8 of microorganisms in 1ml of urine;
- e) 10^4 of microorganisms in 1ml of urine.

214. Morphologic forms of acute pyelonephritis:

Variants of answer:

- a) serous;
- b) purulent;
- c) purulent with mesenchymal reaction;
- d) all above;
- e) lymphocytic.

215. Ways of infecting in chronic pyelonephritis:

Variants of answer:

- a) lymphogenous;
- b) hematogenous;
- c) urogenous;
- d) all above;
- e) transsexual.

216. General urinalysis in chronic pyelonephritis characterized by:

Variants of answer:

- a) massive proteinuria;
- b) leucocyturia;
- c) hematuria;
- d) nephrotic syndrome;
- e) all above.

217. Criteria of efficiency of antibacterial therapy in chronic pyelonephritis:

Variants of answer:

- a) normalization of temperature;
- b) no pain and disuria;
- c) no leucocyturia;
- d) negative result of culture of bacteria in urine;
- e) all above.

218. Etiological factors of acute glomerulonephritis:

Variants of answer:

- a) acute bacterial infections;
- b) acute viral infections;
- c) parasitogenic infections;
- d) cooling;
- e) all above.

219. Pathomorphologic feature of quickly progressive glomerulonephritis is:

Variants of answer:

- a) diffuse proliferative glomerulonephritis;
- b) proliferation of endothelial and mesangial cells;

- c) extracapillary glomerulonephritides with semilunar;
- d) minimal change disease;
- e) all above.

220. Hypercholesterolemia is commonly associated with:

Variants of answer:

- a) diabetes mellitus;
- b) hypothyroidism;
- c) nephrotic syndrome;
- d) all above;
- e) diabetic nephropathy.

221. Instrumental diagnostics of quickly progressive nephritis:

Variants of answer:

- a) examination of fundus of the eye;
- b) ultrasound scanning of kidneys;
- c) punctual biopsy of kidneys;
- d) scintigraphy of kidneys;
- e) all above.

222. A 21-year-old woman presents with hypertension, fatigue, and microscopic hematuria. A renal biopsy demonstrates glomerulonephritis secondary to focal segmental glomerulosclerosis. Which of the following would be the most appropriate step to take next in the treatment of this patient's disease:

Variants of answer:

- a) renal dialysis;
- b) cyclosporine;
- c) prednisone;
- d) cyclophosphamide;
- e) ampicillin.

223. Renal vein thrombosis is most commonly associated with:

Variants of answer:

- a) diabetic nephropathy;
- b) membranous glomerulonephritis;
- c) minimal change disease;
- d) membranoproliferative glomerulonephritis;
- e) ischemic heart disease.

224. Ponticelli's scheme is used for treatment:

Variants of answer:

- a) liver cirrhosis;
- b) ischemic heart disease;

- c) chronic glomerulonephritis;
- d) quickly progressive glomerulonephritis;
- e) diabetic nephropathy.

225. A patient with nephrotic syndrome on long-standing corticosteroid therapy may develop all the following except:

Variants of answer:

- a) hyperglycemia;
- b) hypertrophy of muscle;
- c) neuropsychiatric symptoms;
- d) suppression of the pituitary adrenal axis;
- e) erosions and ulcers in the stomach.

226. Pulse-therapy with methylprednisolone must be given:

Variants of answer:

- a) dose 1,000 mg intravenously in drops, once a day (3 days);
- b) dose 1,000 mg intravenously, once;
- c) dose 500 mg intravenously once a day (2 days);
- d) dose 50 mg intravenously once a day (2 days);
- e) dose 10,000 mg intravenously once a day (2 days).

227. Definition of acute interstitial nephritis:

Variants of answer:

- a) nonspecific infectious inflammatory renal disease affecting renal parenchyma, renal pelvises and calyces;
- b) disease conditioned with hypersensitiveness being developed in interstitial tissue of kidneys because of influence of drugs;
- c) acute, diffuse, immune inflammation of renal glomerules being developed after antigenous influence;
- d) diffuse proliferative glomerulonephritis;
- e) minimal change disease.

228. All the following drugs cause renal failure except:

Variants of answer:

- a) ampicillin;
- b) amphotericin B;
- c) cefoperazone;
- d) gentamicin;
- e) captopril.

229. All of the following factors increase the risk of aminoglycoside renal toxicity, except:

Variants of answer:

- a) elderly person;
- b) dehydration;

- c) simultaneous use with penicillin;
- d) aminoglycoside administration in recent past;
- e) acute viral infections.

230. Chronic tubulointerstitial nephritis is:

Variants of answer:

- a) drug-induced nephropathy;
- b) toxic nephropathy;
- c) microcrystalline nephropathy;
- d) all above;
- e) stage of chronic pyelonephritis.

231. Necrotizing papillitis may be seen in all of the following conditions except:

Variants of answer:

- a) sickle cell disease;
- b) tuberculous pyelonephritis;
- c) diabetes mellitus;
- d) analgesic nephropathy;
- e) all above.

232. Symptom of a ring (necrosis of papilla) on the pyelogram is a sign of:

Variants of answer:

- a) chronic pyelonephritis;
- b) chronic glomerulonephritis;
- c) chronic tubulointerstitial nephritis;
- d) diabetic nephropathy;
- e) gout.

233. Nephrocalcinosis seen in all except:

Variants of answer:

- a) sarcoidosis;
- b) acute pancreatitis;
- c) hyperparathyroidism;
- d) vitamin D intoxication;
- e) scleroderma.

234. Stages of acute renal insufficiency:

Variants of answer:

- a) initial;
- b) oliguric;
- c) polyuric;
- d) complete recovery of diuresis;
- e) all above.

235. Etiologic factors of postrenal acute renal insufficiency:

Variants of answer:

- a) endogenous intoxication;
- b) cardiogenous shock;
- c) extrarenal obstruction;
- d) inflammatory kidney disease;
- e) thrombosis of renal artery.

236. All of the following are associated with polyuria except:

Variants of answer:

- a) diabetes insipidus;
- b) diabetes mellitus 1 type;
- c) rapidly progressive glomerulonephritis;
- d) pyelonephritis;
- e) diabetes mellitus 2 type.

237. Glomerular filtration rate in terminal stage of chronic renal insufficiency is:

Variants of answer:

- a) 60–40 ml/min;
- b) less than 20 ml/min;
- c) 40–20 ml/min;
- d) more than 60 ml/min;
- e) 70–50 ml/min.

238. Contraindications for transplantation of kidneys in chronic kidney disease:

Variants of answer:

- a) severe extrarenal pathology (tumors, stroke, infarction);
- b) single kidney;
- c) tuberculous affection of kidneys;
- d) chronic hepatitis;
- e) ischemic heart disease.

239. A 58-year-old woman had progressive renal failure secondary to polycystic kidney disease and she await renal transplantation. Which of the following metabolic abnormalities would most likely be present in this patient:

Variants of answer:

- a) metabolic acidosis;
- b) hypokalemia;
- c) hypophosphatemia;
- d) hypercalcemia;
- e) metabolic alkalosis.

240. A 35-year-old woman presents to clinic with a history of headaches, weakness, fatigue, and polyuria. Her blood pressure is 210/94 mm Hg. Laboratory tests reveal the following abnormalities: arterial pH, 7.48; sodium, 148; potassium, 2.7; HCO_3^- , 37; plasma renin level is low; urine chloride, 28 mEq/L. Which of the following is the most likely diagnosis:

Variants of answer:

- a) secondary hyperaldosteronism;
- b) diuretic abuse;
- c) milk-alkali syndrome;
- d) primary hyperaldosteronism;
- e) diabetes mellitus.

241. A 25-year-old woman presents to clinic with fatigue of 1 week's duration. She thinks there was blood in her urine on two occasions after excessive exercise. Physical examination is unremarkable except for some mild muscle tenderness. Urinalysis is positive for 3+ blood. The blood urea nitrogen level is 18 mg/dl, and the creatinine level is 1.1 mg/dl. What is the most likely cause of this patient's symptoms:

Variants of answer:

- a) postinfectious glomerulonephritis;
- b) myoglobinuria caused by rhabdomyolysis;
- c) IgA nephropathy;
- d) Wegener granulomatosis;
- e) rapidly progressive glomerulonephritis.

242. A 56-year-old man presents with bone pain, anemia, hypercalcemia, and renal insufficiency. Bone marrow biopsy indicates a diagnosis of multiple myeloma. Which of the following mechanisms does not classically cause renal damage in patients with multiple myeloma:

Variants of answer:

- a) excessive filtration of Bence-Jones proteins, causing direct tubular cell damage;
- b) renal artery thrombosis associated with tubular atrophy;
- c) hyperuricemia from urate overproduction or lysis of plasma cells, causing precipitation of urate crystals;
- d) the suppression of humoral immunity, leading to urinary tract infections that cause chronic tubulointerstitial nephritis;
- e) hypercalcemia leading to calcium salt deposition in the kidneys.

243. A 36-year-old hypertensive man develops macroscopic hematuria 24 hours after the onset of pharyngitis. The patient's brother had a history of poststreptococcal glomerulonephritis at age 6 after a streptococcal infection of the throat. What is the most likely explanation for this patient's hematuria:

Variants of answer:

- a) poststreptococcal glomerulonephritis;
- b) glomerulosclerosis;

- c) IgA nephropathy;
- d) Henoch-Schonlein purpura;
- e) renal vein thrombosis.

244. Berge's disease is:

Variants of answer:

- a) neurosensory deafness;
- b) diabetic nephropathy;
- c) IgA-nephropathy;
- d) B₁₂ deficiency anemia;
- e) Wegener granulomatosis.

TESTS IN RHEUMATOLOGY

245. In which disease more than 80 % of patients have the HLA-B27 phenotype:

Variants of answer:

- a) carpal tunnel syndrome;
- b) Reiter's syndrome;
- c) appendicitis;
- d) peptic ulcer disease;
- e) liver cirrhosis.

246. Which of the following is a pro-inflammatory cytokine:

Variants of answer:

- a) CRP;
- b) Interleukin 4 (IL-4);
- c) IL-10;
- d) tumour necrosis factor-alpha;
- e) procalcitonin.

247. IL-1 induces:

Variants of answer:

- a) T lymphocyte activation;
- b) delayed wound healing;
- c) increased pain perception;
- d) decreased PMN release from bone marrow;
- e) T lymphocyte depression.

248. Rheumatoid factor in rheumatoid arthritis is important because:

Variants of answer:

- a) RA factor is associated with bad prognosis;
- b) absent RA factor rules out the diagnosis of rheumatoid arthritis;

- c) it is very common in childhood-rheumatoid arthritis;
- d) it correlates with disease activity;
- e) RA factor is associated with good prognosis.

249. Rheumatoid arthritis is an autoimmune disease that is characterized by:

Variants of answer:

- a) synovial inflammation and hyperplasia;
- b) autoantibody production;
- c) cartilage and bone destruction;
- d) systemic features, including cardiovascular, pulmonary, psychological, and skeletal disorders;
- e) all above.

250. A 45-year-old female complains of increasing widespread joint pains which are worse in the evening after a stressful day at work. She describes puffy hands and feet and a painful neck. Her concentration is very poor and she has recently suffered from marital problems. Rheumatoid factor is mildly positive. Examination reveals an increased body mass index and global restriction of movement due to pain, but no synovitis. Which of the following investigations would be useful in this case:

- a) anti-cyclic citrullinated peptide antibody;
- b) ultrasound scan hands and feet;
- c) anti-JO-I antibody;
- d) erythrocyte sedimentation rate and CRP;
- e) anti-mitochondrial antibody (AMA).

251. A 64 year old male presents with a symmetrical arthritis of both hands with early morning stiffness. His X-rays of his hands done before clinic show the following: periarticular osteoporosis of the metacarpal joints; erosion on the ulnar styloid; symmetrical distribution of disease; reduced joint space at the carpal bones. What is the most likely diagnosis:

- a) ankylosing spondylitis;
- b) rheumatoid arthritis;
- c) gout;
- d) secondary osteoarthritis;
- e) psoriatic arthritis.

252. Which of the following is a first line drug for patient with rheumatoid arthritis:

- a) ibuprofen;
- b) methotrexate;
- c) glucosamine sulfates;

- d) pantoprazole;
- e) prednisolone.

253. Which of the following regarding Infliximab is most true:

Variants of answer:

- a) is a monoclonal antibody to the glycoprotein IIb-IIIa receptor
- b) is authorized for the treatment of severe ulcerative colitis
- c) is licensed for the treatment of Rheumatoid arthritis
- d) it prevents relapse of Crohn's disease in patients who are in remission
- e) must not be used in combination with methotrexate due to increased toxicity.

254. Osteoarthritis is characterized by all signs except:

Variants of answer:

- a) degradation of articular cartilage and alterations in other joint tissues;
- b) joint space narrowing, subchondral sclerosis, subchondral cysts, and peripheral osteophytes;
- c) pain on movement, typically occurring when movement is initiated or when the patient begins to walk;
- d) morning stiffness in and around the joints, lasting at least 1 h before maximal improvement;
- e) pain during the night.

255. Symptomatic slow-acting drugs for osteoarthritis (SYSADOA) not includes:

Variants of answer:

- a) hyaluronic acid;
- b) D-glucosamine sulphate;
- c) methotrexate;
- d) chondroitin sulphate;
- e) diacerein.

256. 45 year old man complains of back pain and multiple joints pain. X-Ray shows bilateral sacroilitis. Diagnosis could be:

Variants of answer:

- a) rheumatoid arthritis;
- b) ankylosing spondylitis;
- c) psoriatic arthritis;
- d) osteoarthritis;
- e) gout.

257. A 25-year-old lady with known systemic lupus erythematosus (SLE) presents with the nephrotic syndrome. A renal biopsy is performed and this

confirms diffuse proliferative glomeronephritis (WHO Class IV). Which of the following treatment regimens would you advise:

Variants of answer:

- a) azathioprine alone;
- b) prednisolone alone;
- c) azathioprine and prednisolone;
- d) prednisolone and intravenous cyclophosphamide;
- e) prednisolone and methotrexate.

258. Which of the following drugs is most likely to cause systemic lupus-like syndrome:

Variants of answer:

- a) ibuprofen;
- b) procainamide;
- c) methotrexate;
- d) sulfasalazine;
- e) ceftriaxoni.

259. Antiphospholipid syndrome is an autoimmune disorder of acquired hypercoagulability characterized by all signs except:

Variants of answer:

- a) the association of pregnancy morbidity (foetal loss, premature birth or recurrent embryonic losses);
- b) the association of vascular thromboses (venous, arterial, small vessels);
- c) predominantly affecting young males;
- d) persistent elevated serum levels of antiphospholipid antibodies (anticardiolipin, lupus anticoagulant or anti- B2glycoprotein I);
- e) predominantly affecting young women.

260. Characteristic of mixed connective-tissue disease are all of the following except:

Variants of answer:

- a) hypogammaglobulinemia;
- b) membranous glomerulonephritis;
- c) polyarthritis;
- d) CNS involvement;
- e) autoimmune hepatitis.

261. Patient complaining of finger stiffness and dysphagia. What could be the most probable diagnosis:

Variants of answer:

- a) achalasia;
- b) lower esophageal ring;

- c) esophageal carcinoma;
- d) scleroderma;
- e) dermatomyositis.

262. CREST-syndrome defined by the presence of all symptoms except:

Variants of answer:

- a) cystosis;
- b) sclerodactyly;
- c) esophageal dysmotility;
- d) skin calcification;
- e) Raynaud's phenomenon.

263. Characteristic skin manifestations of dermatomyositis are all below except:

Variants of answer:

- a) Gottron's papules;
- b) periungual teleangiectasias;
- c) a rash on the cheeks and nose, often in the shape of a butterfly;
- d) heliotrope rash;
- e) mechanic's hand.

264. Diagnostic criteria of polymyositis are all below except:

Variants of answer:

- a) proximal muscle weakness (upper or lower extremity and trunk);
- b) destructive arthritis;
- c) elevated serum creatine kinase or aldolase level;
- d) myogenic changes on electromyography (short-duration, polyphasic motor unit potentials with spontaneous fibrillation potentials);
- e) signs of inflammation in muscle biopsy.

265. A 72-year-old man presents with an acutely painful right knee. On examination, he had a temperature of 37 °C with a hot, swollen right knee. Of relevance amongst his investigations, was his white cell count which was $12.6 \times 10^9/l$ and a knee X-ray revealed reduced joint space and calcification of the articular cartilage. Culture of aspirated fluid revealed no growth. What is the most likely diagnosis:

- a) gout;
- b) psoriatic monoarthropathy;
- c) pseudogout;
- d) rheumatoid arthritis;
- e) septic arthritis.

266. Principles of treatment gout includes all position except:

Variants of answer:

- a) NSAIDs and colchicine are first-line agents for acute attacks of gout;
- b) urate-lowering therapy should be initiated during acute attacks;
- c) xanthine oxidase inhibitors are approved for lowering urate levels;
- d) uricase agents are approved for lowering urate levels;
- e) uricosuric agents are approved for lowering urate levels.

267. Cranial symptoms (tenderness, headache), jaw claudication, visual changes and neurologic changes are all commonly seen in:

Variants of answer:

- a) polymyalgia rheumatic;
- b) giant cell arteritis;
- c) Takayasu arteritis;
- d) Wegener's granulomatosis;
- e) atherosclerosis.

268. Methotrexate is considered the first-line adjuvant therapy in patients with systemic vasculitis who do not respond to prednisone. Oral therapy should be initiated at a dosage of:

Variants of answer:

- a) 7.5 to 10 mg per week;
- b) 7.5 to 10 mg per day;
- c) 15 to 20 mg per week;
- d) 15 to 20 mg per day;
- e) 45 to 60 mg per day.

TESTS IN ENDOCRINOLOGY

269. What index of blood serum verified of autoimmune insulinitis presens:

Variants of answer:

- a) increased titer of thyroperoxidase antibodies;
- b) increased concentration of immunoreactive insulin (IRI);
- c) decreased concentration of C-peptide;
- d) increased titer of GAD (glutamataldegiddecarboxilase) antibodies;
- e) increased concentration of fructosamine.

270. What type of diabetes is idiopathy diabetes mellitus belonged to according with WHO (1999) classification:

Variants of answer:

- a) specific type;
- b) diabetes mellitus type 1;

- c) diabetus mellitus type 2;
- d) diabetus mellitus in pregnancy women;
- e) b, d are correct.

271. Which type diabetes is HLA associated:

Variants of answer:

- a) type I diabetes;
- b) type II diabetes;
- c) malnutrition related type disease;
- d) pregnancy related type diabetes;
- e) specific type.

272. Which of the following clinical features is associated with type I diabetic mellitus:

Variants of answer:

- a) requirement for oral hypoglycemic agents;
- b) presence of islets antibodies;
- c) rare ketosis;
- d) obesity;
- e) onset disease older 50 year.

273. One bread unit is contained in:

Variants of answer:

- a) 100 g of boiled beef;
- b) 10 ml 40 % glucosae solution;
- c) 2 tea spoon of vegetable oil;
- d) 1 glass of milk;
- e) 100 g bread.

274. Oral glucosae tolerant test is not indicate in the following situation:

Variants of answer:

- a) patient's fasten glicemia 6,4 mmol/l;
- b) patient's bilirubin blood serum level increased;
- c) diabetus mellitus type 1 is diagnosed at patient's relatives;
- d) patient's fasten glicemia 5,9 mmol/l;
- e) diabetus mellitus type 2 is diagnosed at patient's relatives.

275. Of the following listed oral hypoglycaemic agents, which one exerts their primary action by stimulating the pancreas to secrete insulin:

Variants of answer:

- a) biguanides;
- b) alpha glucosidase inhibitors;
- c) sulfonylureas;

- d) thiazolidinediones;
- e) a, b are correct.

276. What drug belongs to insulin secretisers:

Variants of answer:

- a) glibenclamid;
- b) monoinsulin;
- c) metformin;
- d) α -glucosidase inhibitor;
- e) a, c are correct.

277. What stage of diabetic nephropathy according of Morgenson micro-albuminuria is appeared for:

Variants of answer:

- a) 1 (kidney hyperfunction);
- b) 2 (started structure changing);
- c) 3 (begun nephropathy);
- d) 4 (exceeded nephropathy);
- e) 5 (uremia).

278. Point criteria of severe hypoglycemia:

Variants of answer:

- a) glycemia 2,8 mmol/l;
- b) midriasis;
- c) arrhythmias;
- d) unconsciousness;
- e) Kussmaul's breathing.

279. Which substances are ketons:

Variants of answer:

- a) α -ketoglutaric acid;
- b) gamma-aminobutyric acid;
- c) acetoacetic acid;
- d) ketone;
- e) hydrochloric acid.

280. What index is international standard of good controlled diabetes mellitus:

Variants of answer:

- a) fructosamine;
- b) callicrein;
- c) glycohemoglobin;
- d) fibronectin;
- e) creatinine.

281. Changing of thyroid status at prime subclinical hyperthyroidism:

Variants of answer:

- a) ↑ FT₄; ↑ TSH;
- b) NFT₄; ↓ TSH;
- c) ↓ FT₄; ↓ TSH;
- d) NFT₄; ↑ TSH;
- e) ↑ FT₄; ↓ TTT.

282. Subacute thyroiditis is characterized by following changing of blood test:

Variants of answer:

- a) significant leucocytosis and normal ESR;
- b) high neutrophils level and eosinophilia;
- c) insignificant leucocytosis and very high ESR;
- d) insignificant leucocytosis and monocytosis;
- e) eosinophilia and leucocytosis.

283. What type antibodies is increased in autoimmune thyroiditis:

Variants of answer:

- a) antibodies to receptor TSH;
- b) antibodies to thyroidperoxydase (TPO);
- c) thyroidblocked antibodies;
- d) thyroidstimulated antibodies;
- e) a, c are correct.

284. Marie symptom is a:

Variants of answer:

- a) exophthalmus;
- b) tremor of nasolabial folds;
- c) tremor of arm fingers;
- d) skin hyperpigmentation;
- e) plethora.

285. Needle biopsy of solitary thyroid nodule in a young woman with palpable cervical lymph nodes on the same sides demonstrates amyloid in stroma of lesion. Likely diagnosis is:

Variants of answer:

- a) medullary carcinoma thyroid;
- b) follicular carcinoma thyroid;
- c) thyroid adenoma;
- d) multinodular goiter;
- e) amyloidosis.

286. Glucocorticosteroid which is converted to cortisol:

Variants of answer:

- a) prednisolon;
- b) hydrocortisone;
- c) dexamethason;
- d) medrol;
- e) methylprednisolon.

287. Which of the following disorders are characterised by a group of symptoms produced by an excess of free circulating cortisol from the adrenal cortex:

Variants of answer:

- a) Hashimoto's disease;
- b) Addison's disease;
- c) Grave's disease;
- d) Cushing's disease;
- e) Crohn's disease.

288. What changes of electrolytes are characterized for prime hyperaldosteronism:

Variants of answer:

- a) ↓ Ca; ↓ Na; ↑ K;
- b) ↑ Na; ↓ K;
- c) ↓ Ca; ↑ Na;
- d) ↓ K; ↑ Ca;
- e) ↑ Na; ↑ K.

289. Which substrates are belonged to somatomedines:

Variants of answer:

- a) metanephrines;
- b) growth hormone;
- c) normetanephrines;
- d) insulin growth factor;
- e) thyrotropic hormone.

290. What group of drugs are belonged to incretines:

Variants of answer:

- a) insulinsensetisers;
- b) secretagogues;
- c) α-glucosidase inhibitors;
- d) bisphosphonates;
- e) insulins.

291. The main symptom to different primary and secondary hypocorticism:

Variants of answer:

- a) skin hyperpigmentation;
- b) osteopenia of spine;
- c) arterial hypertension;
- d) hypocalcaemia;
- e) hypercalcemia.

292. Diabetes insipidus is characterized by:

Variants of answer:

- a) oliguria;
- b) hyposostenuria;
- c) proteinuria;
- d) glucosuria;
- e) hyperstenuria.

293. Kussmaul breathing is presented at:

Variants of answer:

- a) hypoglycemic coma;
- b) ketoacidotic coma;
- c) hyperosmolar coma;
- d) hypothyroid coma;
- e) hyperthyroid coma.

294. Which type endocrinopathy is characterized by hyperglycemia:

Variants of answer:

- a) hypersomatotropism;
- b) hypothyroidism;
- c) panhypopituitarism;
- d) hyperprolactinemia;
- e) hyperthyroidism.

295. Which of the following hormone is secreted by posterior pituitary:

Variants of answer:

- a) somatostatin;
- b) vasopressin;
- c) calcitonin;
- d) cortisol;
- e) adrenalin.

296. Which of the following disorder is caused by excessive producing of somatotropin:

Variants of answer:

- a) adrenogenital syndrome;
- b) cretinism;

- c) acromegaly;
- d) dwarfism;
- e) Itzenko-Kushinga's disease.

297. All of the following are features of pheochromocytoma except:

Variants of answer:

- a) hypertensive paroxysm;
- b) headache;
- c) orthostatic hypotension;
- d) proteinuria;
- e) tachycardia.

298. Konn's syndrome is associated with all except:

Variants of answer:

- a) hypertension;
- b) hypernatremia;
- c) hypokalemia;
- d) oedema;
- e) polyuria.

299. Phenylalanine is the precursor of all the following, except:

Variants of answer:

- a) tyrosine;
- b) epinephrine;
- c) thyroxine;
- d) melatonin;
- e) somatotropine.

300. Sex chromosomes are also called:

Variants of answer:

- a) allosomes;
- b) heterosomes;
- c) autosomes;
- d) euchromosomes;
- e) disomes.

301. Trisomy 21 is otherwise called:

Variants of answer:

- a) Klinefelter's syndrome;
- b) Turner's syndrome;
- c) sickle cell anaemia;
- d) Down's syndrome;
- e) Konn's syndrome.

302. Preobesity is defined as BMI of:

Variants of answer:

- a) 18,5–24.9;
- b) 25–29.9;
- c) 35–39.9;
- d) 40–44.9;
- e) 30–34.9.

TESTS IN HEMATOLOGY

303. Microcytic ($MCV < 80$ fl) anemia present in all type anemias except:

Variants of answer:

- a) iron deficiency anemia;
- b) hemolytic anemias;
- c) thalassemia minor;
- d) sideroblastic anemia;
- e) sickle cell anaemia.

304. Expected serum parameters in iron deficiency anemia are all except:

Variants of answer:

- a) decreased serum iron level;
- b) decreased serum TIBC (total iron-binding capacity);
- c) decreased MCHC;
- d) decreased serum ferritin level;
- e) normal level of bilirubin.

305. Highest binding of iron is seen with:

Variants of answer:

- a) transferrin;
- b) ferritin;
- c) haemoglobin;
- d) ceruloplasmin;
- e) protrombine.

306. Syderopenic syndrome includes all signs except:

Variants of answer:

- a) hematuria;
- b) cheilosis (fissures at the corners of the mouth);
- c) atrophy of the papillae of the tongue;
- d) changes of gustatory sensation;
- e) koilonychia (spooning of the fingernails).

307. Hypergastrinemia with hypochlorhydria is seen in:

Variants of answer:

- a) Zollinger-Ellison syndrome;
- b) VIPoma;
- c) pernicious anemia;
- d) glucagonoma;
- e) Itzenko-Kushinga's disease.

308. Vitamin B₁₂ and folic acid supplementation in megaloblastic anemia leads to the improvement of anemia due to:

Variants of answer:

- a) increased DNA synthesis in bone marrow;
- b) increased hemoglobin production;
- c) erythroid hyperplasia;
- d) increased iron absorption;
- e) activation of coloniestimulating factors.

309. Cobalamine is required for the formation of:

Variants of answer:

- a) platelets;
- b) leucocytes;
- c) lymphocytes;
- d) monocytes;
- e) erythrocytes.

310. The diagnosis of autoimmune hemolytic anemia is based on the presence of below signs except:

Variants of answer:

- a) signs of hemolysis with reticulocytosis;
- b) elevated indirect bilirubin;
- c) positive direct antiglobulin test (Coombs test);
- d) elevated haptoglobin;
- e) normochromic normocytic anemia.

311. The standard therapeutic approaches to treatment of autoimmune hemolytic anemia not include:

Variants of answer:

- a) NSAID;
- b) cytostatics;
- c) corticosteroids;
- d) splenectomy;
- e) immunosuppressive drugs.

312. Sickle cell anaemia is:

Variants of answer:

- a) autosomal hereditary disease
- b) allosomic hereditary disease
- c) acquired disease
- d) nutritional disorder
- e) due to atrophy of stomach mucosa

313. Which of the following is not commonly seen in polycythemia vera:

Variants of answer:

- a) thrombosis;
- b) hyperuricemia;
- c) transformation to acute leukemia;
- d) spontaneous severe infection;
- e) pruritis.

314. Polycythemia vera should be suspected in patients with:

Variants of answer:

- a) elevated hemoglobin or hematocrit levels;
- b) pruritus after bathing;
- c) burning pains in the distal extremities (erythromelalgia);
- d) hyperplasia of erythrocytic line in bone marrow aspirate;
- e) all above.

315. The treatment of choice in young patient suffering from aplastic anaemia is:

Variants of answer:

- a) danazol;
- b) G-CSF;
- c) bone marrow transplantation;
- d) antithrombotic globulin;
- e) prednisolone.

316. Not characteristic clinical symptoms of acute myeloid leukemia:

Variants of answer:

- a) gum hypertrophy;
- b) skin infiltration or nodules;
- c) arthropathy;
- d) lymphadenopathy;
- e) intoxication symptoms.

317. Diagnostic criteria of acute myeloid leukemia not include:

Variants of answer:

- a) in bone marrow aspirate — blast cells count of 20 % or more;
- b) lack of intermediate form of leukocyte in the blood;
- c) leukocyte count is about 15,000–20,000/ μ L;
- d) positive reaction to lipids and peroxidase;
- e) normocytic hyperchromic anemia.

318. Induction remission in patients with acute myeloid leukemia include:

Variants of answer:

- a) 7+3 chemotherapy (cytosine arabinoside (Ara-C) 7 days and daunorubicin 3 days);
- b) vincristine;
- c) methotrexate;
- d) cyclophosphane;
- e) L-asparaginase.

319. Translocation $t(9;22)(q34;q11)$ (Philadelphia chromosome) with the BCR-ABL1 fusion is reveal in:

Variants of answer:

- a) chronic lymphocytic leukemia;
- b) acute lymphoblastic leukemia;
- c) acute myeloblastic leukemia;
- d) Hodgkin's lymphoma;
- e) chronic myelocytic leukemia.

320. Not seen in tumor lysis syndrome:

Variants of answer:

- a) hyperphosphatemia;
- b) hyperuricemia;
- c) hypocalcemia;
- d) hypercalcemia;
- e) hyperkaliemia.

321. Multiple myeloma is characterized by:

Variants of answer:

- a) the neoplastic proliferation of a plasma cell clone that produces a monoclonal immunoglobulin;
- b) the presence of an M-protein in serum and/or urine (protein Bence-Jones);
- c) increased bone marrow plasma cells (more than 10 %);
- d) all above;
- e) neither.

322. Treatment patients with multiple myeloma includes:

- a) cytarabine;
- b) high-dose chemotherapy using melphalan and prednisolone;
- c) CHOP regimen;
- d) 7 + 3 chemotherapy;
- e) methotrexate.

323. Treatment regimen for Hodgkins lymphoma is:

Variants of answer:

- a) VAD;
- b) CMF;
- c) COP;
- d) ABVD;
- e) CHOP.

324. All of the following feature may be seen in idiopathic thrombocytopenic purpura except:

Variants of answer:

- a) hemorrhagic skin rash;
- b) recurrent nasal bleedings;
- c) low platelet count;
- d) hypertension;
- e) hematuria.

325. The following laboratory determinants is abnormally prolonged in idiopathic thrombocytopenic purpura:

Variants of answer:

- a) APTT (activated partial thromboplastin time);
- b) prothrombin time;
- c) INR (international normalized ratio);
- d) bleeding time;
- e) clotting time.

326. Agranulocytosis is defined as:

Variants of answer:

- a) a neutrophil count of less than $500/\text{mm}^3$;
- b) a lymphocyte count of less than $500/\text{mm}^3$;
- c) a neutrophil count of less than $1,500/\text{mm}^3$;
- d) blast cells count less of 5 %;
- e) an eosinophil count of less than $500/\text{mm}^3$.

327. The following condition is not associated with an anti-phospholipid syndrome:

Variants of answer:

- a) venous thrombosis;
- b) recurrent foetal loss;
- c) thrombocytosis;
- d) positive anti-phospholipid antibodies;
- e) neurological manifestations.

328. Characteristic of Henoch-Schonlein purpura is:

Variants of answer:

- a) symmetrical hemorrhagic skin rash in the legs;
- b) thrombocytopenia;
- c) leucopenia;
- d) recurrent thrombosis;
- e) susceptibility to infection.

CORRECT ANSWERS

| | | | | | | | | | |
|-----|-----|------|------|------|------|------|------|------|------|
| 1d | 35a | 69b | 103d | 137b | 171d | 205b | 239a | 273d | 307c |
| 2d | 36d | 70c | 104b | 138b | 172d | 206a | 240c | 274a | 308a |
| 3b | 37b | 71a | 105b | 139b | 173d | 207b | 241b | 275c | 309e |
| 4a | 38a | 72d | 106d | 140c | 174b | 208c | 242b | 276c | 310d |
| 5b | 39c | 73d | 107c | 141a | 175b | 209b | 243c | 277c | 311a |
| 6d | 40d | 74a | 108c | 142a | 176c | 210c | 244c | 278d | 312a |
| 7a | 41b | 75d | 109b | 143a | 177c | 211b | 245b | 279c | 313d |
| 8c | 42d | 76d | 110b | 144a | 178b | 212a | 246d | 280c | 314e |
| 9b | 43c | 77a | 111c | 145d | 179b | 213a | 247a | 281b | 315c |
| 10c | 44d | 78a | 112c | 146c | 180b | 214d | 248a | 282c | 316c |
| 11c | 45b | 79c | 113c | 147d | 181a | 215d | 249e | 283b | 317e |
| 12a | 46c | 80e | 114e | 148b | 182b | 216b | 250a | 284c | 318a |
| 13d | 47b | 81b | 115b | 149e | 183c | 217e | 251b | 285a | 319e |
| 14d | 48e | 82e | 116c | 150d | 184d | 218e | 252b | 286b | 320d |
| 15a | 49d | 83a | 117d | 151c | 185e | 219c | 253c | 287d | 321d |
| 16d | 50d | 84c | 118d | 152d | 186d | 220c | 254d | 288b | 322b |
| 17d | 51b | 85c | 119c | 153d | 187c | 221c | 255c | 289d | 323d |
| 18a | 52c | 86c | 120e | 154b | 188e | 222c | 256b | 290b | 324d |
| 19d | 53b | 87c | 121e | 155a | 189a | 223b | 257d | 291a | 325d |
| 20e | 54d | 88d | 122c | 156b | 190c | 224c | 258b | 292b | 326a |
| 21a | 55d | 89c | 123d | 157a | 191d | 225b | 259c | 293b | 327c |
| 22b | 56e | 90c | 124b | 158d | 192a | 226a | 260a | 294a | 328a |
| 23e | 57c | 91c | 125d | 159d | 193b | 227b | 261d | 295b | |
| 24c | 58b | 92d | 126b | 160c | 194d | 228c | 262a | 296c | |
| 25b | 59b | 93d | 127a | 161a | 195a | 229c | 263c | 297d | |
| 26c | 60d | 94d | 128d | 162a | 196c | 230d | 264b | 298d | |
| 27b | 61a | 95d | 129c | 163d | 197d | 231b | 265c | 299d | |
| 28c | 62d | 96d | 130c | 164c | 198c | 232c | 266b | 300a | |
| 29a | 63c | 97c | 131d | 165b | 199d | 233b | 267b | 301d | |
| 30b | 64b | 98b | 132b | 166c | 200b | 234e | 268a | 302b | |
| 31d | 65c | 99b | 133d | 167a | 201b | 235c | 269d | 303b | |
| 32a | 66d | 100a | 134d | 168d | 202a | 236d | 270b | 304b | |
| 33a | 67b | 101c | 135c | 169a | 203c | 237b | 271a | 305c | |
| 34d | 68c | 102d | 136b | 170b | 204c | 238a | 272b | 306a | |

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ПО ВНУТРЕННИМ БОЛЕЗНЯМ
(на английском языке)**

**Учебно-методическое пособие
для студентов 4–6 курсов всех факультетов
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