

1. A number of viable fetuses per 1000 women at the age between 15 and 44 is determined by:

- a. Birth rate
- b. Reproductive level
- c. Genital index**
- d. Perinatal rate
- e. Obstetric rate

2. Point out the unit for statistical observation for the determination of blood sugar level influence on a wound surface healing during postoperative period

- a. The patient who has a wound surface
- b. The patient who was discharged to outpatient treatment
- c. Blood sugar level
- d. Blood test
- e. The patient in a postoperative period**

3. What information gathering method is preferable to study housing conditions of medical students during training period?

- a. Directed selection method
- b. Statistical
- c. Interviewing
- d. Materials selection

**e. Questionnaire**

4. What methods of the collecting of the information is preferable for study of housing conditions of students of medical HIGH SCHOOL for a training period?

- a. Selecting of materials
- b. Interviewing
- c. Questioning**
- d. A method of the directed selection
- e. Statistical

5. Choose a method of a graphic representation of monthly information about number of the registered cases of acute intestinal infection and their comparisons to the average monthly values, obtained for 5 previous years:

- a. The radial diagram
- b. The figured diagram
- c. The curvilinear diagram
- d. The linear diagram**
- e. The sector diagram

6. The parameter of infantile mortality for the last year was - 16,3, in present year - 15,7. Name a kind of the diagram that can be used for a graphic representation of it:

- a. Radial
- b. Stylar**
- c. Intrastylar
- d. Linear
- e. Sector

7. The average body length of newborn boys is 50,9 cm at a sigma 1,66; and average mass - 3432 at a sigma 5,00. What criterion is necessary in order to compare degree of variability of these signs?

- a. Limit
- b. Sigma
- c. Coefficient of variation**
- d. Amplitude
- e. Coefficient of association

8. What method is applied to establish rate of correlation between age of men and their mortality due to myocardial infarction?

a. Method of grade correlation (Spirman)

b. The quadrate method (Pirson)

c. Method of graduated correlation (Armler)

d. The Indirect method (Student)

e. Correlation ratio

9. Indicate the registration medical document for the patient, who 21.02. was addressed to the doctor with diagnosis ARVD for the first time in this year:

a. The statistical coupon for registration of final diagnosis is not necessary

b. It is necessary to fill in the emergency notice on a case of a contagion

c. The necessary registration form is not indicated

**d. The statistical coupon is to be filled in and it is necessary to deliver on a sign (+)**

e. The statistical coupon is to be filled in, but a sign (+) is not necessary to be put in

10. Define the basic registration document at the profound study of a case rate with temporary lost labor ability at the industrial enterprise:

a. A ambulatory medical card

b. The inpatient medical record

c. "The Report on reasons of a temporary lost labor ability"

d. The sick-leave certificate

**e. A card of the personal account of a case rate**

11. Head of a department and a trade-union group have appealed to the head of a hospital about dismissal of the senior nurse who has 17 year record of service. The facts of charge were confirmed and recognized by the nurse herself. This nurse lives with a daughter (who is divorced and unemployed) and a 9-month-old grandson. Make an administrative decision:

a. To shift the solution of this problem on other officials or public organizations

b. -

c. To discharge the worker, i.e. to satisfy demands of the collective

d. To issue the sick list

**e. To continue the worker in office with a warning of dismissal in case of repeated violation of labor discipline**

12. 25 unorganized children in the age 2-3 year will be observed on a pediatric district it in the current year. What scheduled number of initial visitations will make to this group of children?

a. 40

b. 20

**c. 50**

d. 100

e. 200

13. A child is 6 years old. Within one year of observation he had URI that lasted 8 days. Physical state is satisfactory. Specify his health group:

**a. I**

b. III (a)

c. III (c)

d. III (b)

e. II

14. A 38 year old man was admitted to a hospital from his working place on July 19 because of hip fracture. He was invalid till November 19. Requires prolongation of treatment. Who decides on the issue of further temporary invalidity?

a. DCC

b. Interregional general MSEC

c. Regional MSEC

**d. Specialized (traumatologic) MSEC**

e. The head physician of a polyclinic

15. What is the maximum duration of medical certificate in case of tuberculosis?

- a. Week
- b. Month
- c. 10 months
- d. 2 months**
- e. 2 weeks

16. An engineer-chemist at the age of 47 often falls ill with an occupational skin disease. Who makes a decision to transfer him to other job accepts?

- a. A head physician
- b. The chief of shop
- c. MSEC
- d. DCC**
- e. The attending physician

17. A patient with high temperature came to a first-aid post in the evening. The fact of temporary disability was established. Indicate the order of examination in this case:

- a. The night duty doctor should issue a medical certificate, which will be subsequently used for issuing a sick list from the date of the previous day**
- b. The sick list for up to 3 days should be issued
- c. Any document shouldn't be issued
- d. The sick list for 3 days should be issued
- e. The sick list for 1 day should be issued

18. A 5 tons milk batch was sampled. The lab analysis revealed: fat content 2%, specific density - 1,04 g/cm<sup>3</sup>, acidity - 210T, reductase probe - weak-positive. What way is the product to be used in?

- a. Technical utilization
- b. Discard for animal feeding
- c. Sell but inform customers about milk quality**
- d. Sell without limitations
- e. Do the product away

19. A sample of milk was taken for testing from a 5 ton milk batch. Lab analysis showed the following: fat content 2%, specific density- 1,04 g/cm<sup>3</sup>, acidity 21°C, reductase probe - weak positive. What way is the product to be used in? What would you advise?

- a. Write the product off for animal feeding
- b. Sell without limitations
- c. Annihilate the product
- d. Sell but inform customers about milk quality**
- e. Utilize technically

20. The student has the following devices: Geiger counter, Ebert counter, Krotovs apparatus, Mischuk device, Ebert device. What device can he use to assess air germ pollution?

- a. Eborts counter
- b. Mischuks device
- c. Eborts device
- d. Krotovs apparatus**
- e. Geigers counter

21. Thyreotoxicosis patient is in the two-place hospital ward of therapeutic department. The area of the ward is 18 m<sup>2</sup>, height is 3 m, ventilation rate is 2,5/h. Air temperature is 200C, relative humidity is 45%, air movement velocity is 0,3 m/sec, light coefficient is 1/5, noise level constitutes 30 dB. Make a hygienic assessment of these conditions

- a. All conditions are OK
- b. Discomfortable microclimate**
- c. Poor lighting
- d. Non-effective ventilation
- e. High level of noise

22. A 9 y.o. girl has an average height and harmonic growth development. She was ill with acute respiratory infection for five times. Define the group of her health

- a. 3rd group
- b. 1st group
- c. 2nd group**
- d. 4th group
- e. 5th group

23. A student lives in the modern house in the flat with a complete set of sanitary equipment (WC, bath, shower, local water heater). How much water consumption has he got?

- a. 10-15 L/day
- b. 300-400 L/day
- c. 500 -600 L/day
- d. 160-200 L/day**
- e. 50-100 L/day

24. A 30-year-old patient with complaints of occipital headache, disturbed sleep with nightmares came to a policlinic. BP was 150/95 mm Hg. He was diagnosed with hypertensive crisis. The patient should be registered in the following dispensary group for arterial hypertension surveillance:

- a. In the fourth
- b. In the first
- c. In the second**
- d. In the third
- e. In the fifth

25. A young patient who came to a policlinic was diagnosed with the 1 stage of hypertension. How often should he undergo the medical check-up?

- a. 4 times a year
- b. 5 times a year
- c. Once a year
- d. 3 times a year
- e. Twice a year**

26. 25 children at the age of 2-3 years who dont attend any child welfare institutions should be observed by a district pediatrician within the current year. How many initial visits of this group of children should be planned?

- a. 20
- b. 100
- c. 200
- d. 50**
- e. 40

27. Studying of pulmonary tuberculosis incidence provided data about patients socioeconomic living conditions and bad habits. What method allows to estimate the impact of these factors on tuberculosis incidence?

- a. Calculation of reliability coefficient
- b. Calculation of correlation coefficient**
- c. Calculation of regression coefficient
- d. Calculation of correspondence index
- e. Standardized index calculation

28. An employee of a private company was ill with acute respiratory viral infection. Consulted a district doctor, who determined the fact of temporary loss of working ability, but refused to issue a sick-list, arguing that the patient worked in the private and not state-owned company. Should the sick-list be issued to the employees of private companies?

- a. Issued a medical certificate of a set form
- b. Issued a medical certificate of a free form
- c. Issued only to empties of state-owned companies

d. Issued only on condition of payment guarantee by the company's proprietor

e. Issued regardless of company's ownership

29. Clinic of a research institute for occupational diseases examined a worker who works at a concentration plant and diagnosed him with chronic dust bronchitis. The case is investigated by a commission including the representatives of: the plant, clinic, territorial SES, department of Social Insurance Fund, trade union. According to the "regulation on investigation of...", the commission should be headed by the representative of the following authority:

- a. Trade union
- b. Clinic
- c. Plant
- d. Social Insurance Fund

e. Territorial SES

30. Basing upon the data of laboratory assessment of sanitary state of soil in a certain territory, the soil was found to be low-contaminated according to the sanitary indicative value; contaminated according to the coli titer; low-contaminated according to the anaerobe titer (Cl. Perfringens). This is indicative of:

- a. Old fecal contamination
- b. Insufficient intensity of soil humification
- c. Fresh fecal contamination
- d. Constant entry of organic protein contaminations
- e. Insufficient insulation and aeration of soil

31. A maternity hospital registered 616 live births, 1 stillbirth, 1 death on the 5th day of life over a 1 year period. What index allows the most precise estimation of this situation?

- a. Natality
- b. Crude mortality rate
- c. Perinatal mortality
- d. Neonatal mortality
- e. Natural increase

32. A patient complained about problems with pain and tactile sensitivity, pain in the nail bones at the end of the working day. He works at a plant with mechanical devices. What pathology can be suspected?

- a. Overwork symptoms
- b. Hypovitaminosis of B1
- c. Caisson disease
- d. Noise disease
- e. Vibration disease

33. Bacterial analysis of air in a living space in winter period by means of Krotov's apparatus revealed that total number of microorganisms in 1m<sup>3</sup> of air was 7200. What is the allowed number of microorganisms for the air to be characterized as "pure"?

- a. Up to 4500
- b. Up to 3500
- c. Up to 7500
- d. Up to 5500
- e. Up to 2500

34. Maximum permissible concentration of carbon dioxide in the air is considered to be a sanitary index of air purity in a classroom. What concentration of carbon dioxide in the air is accepted as maximum permissible?

- a. 0,05%
- b. 0,2%
- c. 0,3%
- d. 0,1%
- e. 0,15%

35. Study of actual diet of an adult revealed the following: proteins make up 16% of energy value of daily ration, fats - 25%, carbohydrates - 59%. Evaluate compliance of protein, fat and carbohydrate share in the energy value of daily ration with the recommended shares of these nutrients?

- a. Carbohydrate share is excessive
- b. Nutrient content complies with the recommended shares of energy value
- c. Fat share is insufficient
- d. Carbohydrate share is insufficient
- e. Carbohydrate share is insufficient, there is excess of proteins**

36. A patient who has been consuming refined foodstuffs for a long time complains about headache, fatigability, depression, insomnia, irritability. Objectively: muscle asthenia, pain and cramps in the gastrocnemius muscles, during walking the patient lands onto his heel first, then on the external edge of foot. Cardiovascular system exhibits tachycardia, hypoxia, dystrophic changes of myocardium.

There are also gastrointestinal disorders. What is the most likely diagnosis?

- a. Hypovitaminosis B2
- b. Hypovitaminosis B6
- c. Hypovitaminosis B15
- d. Hypovitaminosis B1**
- e. Hypovitaminosis B12

37. Periodical survey of a worker of a chemicals plant revealed a malignant neoplasm on the urinary bladder. This occupational disease was the most probably caused by contact with the following industrial poison:

- a. Benzidine**
- b. Nickel carbonyl
- c. Arsenic
- d. Asbestos
- e. Vinyl chloride

38. A 37 year old patient applied to a local therapist. As a result of exacerbation of chronic obstructive bronchitis the patient had been temporarily disabled for 117 days within 1 year. What tactics will be legally correct?

- a. The patient shoul be referred to the sanatorium-and-spa treatment
- b. The patient should be referred to the medicosocial expertise**
- c. The patient should be referred to the medical consultation comission for extension of medical certificate
- d. The therapist should extend a medical certificate
- e. The therapist should issue a new medical certificate

39. A 46-year-old patient once took part in elimination of breakdown at an atomic power plant. Currently he is being treated at an in-patient hospital. He was diagnosed with progressing vegetative insufficiency. This disease relates to the following group of ionizing radiation effects:

- a. Heterosis
- b. Somato-stochastic**
- c. Genetic
- d. Somatic
- e. Hormesis

40. In treatment and prevention establishments, regardless of their organisational and proprietary form, the rights of patients should be observed. Which of these rights is the most significant?

- a. The right to the protection of the patients interests**
- b. The right to the information
- c. The right to the protection from incompetence
- d. The right to be heard
- e. The right to the free choice

41. A military unit stopped for 3-days rest in an inhabited locality after a long march. The sanitary-epidemiological reconnaissance found several water sources. It is necessary to choose the

source complying with the hygienic standards for drinking water in the field conditions:

- a. Melt snow water
- b. Artesian well water**
- c. River water
- d. Spring water
- e. Rain water

42. A district doctor was commissioned with a task to work out a plan of treatment-and-prophylaxis actions for the population of his district. What actions of secondary prophylaxis must he include into this plan?

- a. Elimination of disease causes
- b. Disease prevention
- c. Prevention of disease complications**
- d. Improvement of populations living conditions
- e. Rehabilitation actions

43. The district pediatrician is charged with the analysis of infant mortality. What is taken for the unit of observation in infant mortality investigation?

- a. A baby dead at the age up to 1 months
- b. A baby dead at the age up to 6 days
- c. A baby dead at birth
- d. A baby dead at the age up to 12 months**
- e. A baby dead at the age over 28 days

44. Chief district pediatrician has to carry out analysis of infant mortality rate. What should he take as a unit of the observation?

- a. Child death case during first 7 days of life
- b. Child death case on labor
- c. Child death case at the age up to the first month
- d. Child death case after 28 days of life
- e. Child death case at the age up to 1 year**

45. Deputy of chief medical officer carried out a study of morbidity rate for population which had been served at the polyclinics for the last 5 years. What statistical values can help in calculations of diseases level dissemination?

- a. Dynamic row
- b. Relative values**
- c. Average values
- d. Standard values
- e. Absolute values

46. There were registered 500 cases of urolithiasis per 10000 inhabitants. What kind of statistical indices is presented?

- a. Prevalence rate**
- b. Index of visualization
- c. Index of compliance
- d. Incidence rate
- e. Correlation coefficient

47. At year-end hospital administration has obtained the following data: annual number of treated patients and average annual number of beds used for patients treatment. What index of hospital work can be calculated on the base of this data?

- a. Bed resources of the hospital
- b. Average duration of patients presence in the hospital
- c. Average bed idle time
- d. Bed turnover**
- e. Average annual bed occupancy

48. A childrens health camp received a party of tinned food. External examination of the tins revealed that they had deep dents; formed a concavity when pressed and didnt immediately return to the initial state; rust was absent; the tins were greased with inedible fat. Specify the bloat type:

- a. Biological
- b. Chemical
- c. Physical
- d. Combined
- e. Physicochemical

49. On physiologic-sanitary examination of railway department work it was revealed that loaders work is of III degree of difficulty. They unload vagons with sand, manually break coagulated mass by shovel and shift it. What criteria was used to evaluate work of loaders?

- a. Time of active activities,% to the shift duration
- b. Value of static loading for the shift
- c. Maximum load weight which is shifted
- d. Time of passive observation,% to the shift duration
- e. Intellectual efforts

50. Workers of fishery are subjected to low temperatures of the air (from 5 till 15°C). Diseases of what organs and systems are the most frequent among workers of such enterprises?

- a. Gastrointestinal tract
- b. Respiratory system
- c. Blood
- d. Cardiovascular system
- e. Liver

51. An outpatient hospital made record of 11600 diseases within one year. Among them influenza and ARD make up 5800, circulatory system diseases - 3480, digestion diseases - 1300, other diseases - 1020. What relative index can be calculated according this data?

- a. Extensive
- b. Visualization
- c. -
- d. Correlation
- e. Intensive

52. Prevalence of a disease in region N amounted 1156 occurrences per 1000 of inhabitants. What of the mentioned indices characterizes the disease prevalence?

- a. Intensive
- b. Ratio
- c. Standardized
- d. Visual index
- e. Extensive

53. A pupil of the 8th form after trauma has acute atrophy of the left arm muscles, tonus of which is distinctly decreased, active movements are only in the left joint, pupils foot is deformed. Function of support of the left leg is absent, support function of the right leg is preserved. The boy wears an orthopedic footwear. What group of physical training does the boy belong to?

- a. Additional
- b. Basic
- c. Special
- d. Other
- e. Preparatory

54. District physician was charged with plan drafting concerning medical and preventive measures among the population in the area he is assigned to. What measures must he include in this plan as regards primary prevention of illness?

- a. Prevention of disease complications
- b. Prevention of disease onset

- c. Measures to increase patients life quality
- d. Referral of patients to sanatorium
- e. Measures to improve patients life conditions

55. A district pediatrician has carried out infant mortality rate analysis in his area. What data has been used?

- a. Hospital mortality of children, structured by age
- b. Mortality of children under 1 y.o., natimortality
- c. Mortality of children under 1 y.o. structured by age, sex, causes**
- d. Mortality of district adolescents
- e. Mortality of district newborn

56. At the radiological unit of the hospital , gamma-devices of radiotherapy of "Agat" type and other closed sources of ionizing radiation are used for treatment of malignant neoplasms. What are the measures to be taken to protect personnel at the time of work with radioactive sources of such type?

- a. Screening of the source and the use of means of individual protection of respiration organs
- b. Capsulation of devices and organization of room ventilation
- c. Shortening of working time and screening of the source**
- d. The increase of distance to the source and individual hygiene compliance
- e. Systematical cleansing of surfaces from the radioactive contamination and shortening of working time

57. A patient undergoes inpatient treatment with the diagnosis of acute pancreatitis. To spare pancreas as much as possible the doctor prescribed for him starvation for 1-3 days. What products is the patient allowed to eat during recovery period after cancelling of starvation?

- a. Broth
- b. Milk
- c. Grape juice
- d. Potato and carrot mash**
- e. Boiled meat

58. A local doctor has to prepare a report about the health condition of the population of his region. What medical indexes of population health condition should he use?

- a. Way of life, genetic, pollution
- b. Social welfare, satisfaction of life quality
- c. Morbidity, disabilities, demographic, physical development**
- d. Average treatment duration, complications
- e. Average longevity

59. To study physical development of children and adolescents, anthropometric investigations are widely used. Choose a physiometric method of investigation from the below given

- a. Measurement of growth
- b. Determination of vertebra form
- c. Determination of body weight
- d. Determination of vital capacity of lungs**
- e. Determination of thorax form

60. Study of morbidity with temporary disability among workers of a machine building plant revealed that average duration of a case was 20 days. What diseases influenced upon the index value?

- a. Preexisting diseases
- b. Hard to determine
- c. Acute
- d. Subacute
- e. Chronic**

61. A patient consulted a doctor about acute respiratory viral infection. The patient was acknowledged to be off work. The doctor issued him a medical certificate for 5 days. The patient is not recovering. What measures should the doctor take in order to legalize the further disability of

patient?

- a. To send the patient to the medical consultative commission
- b. To send the patient to the medical social expert comission
- c. To prolong the medical certificate at his own discretion but no more than for 6 days in total
- d. To prolong the medical certificate together with department superintendent
- e. To prolong the medical certificate at his own discretion but no more than for 10 days in total**

62. It is determined that 30 of a 100 women with risk factor had preterm labor, and of a 100 women without risk factor 5 women had preterm labor. What method of statistic data processing should the doctor use in order to estimate reliability of differences between the compared groups?

- a. Relative numbers calculation
- b. Average computing
- c. Students criterion calculation**
- d. Standardization method
- e. Correlation analysis

63. 350 workers of a metallurgical plant had to undergo a yearly preventive examination. A territorial polyclinic carried out preventive examination of 325 workers. As a result of it, 1 worker was recognized as temporarily disabled, 15 workers underwent further rehabilitation at an after-work sanatorium, 10 workers were provided with diet meal. What index characterizing the preventive work of the polyclinic should be applied in this case?

- a. Percentage of temporarily disabled people
- b. Coverage of preventive medical examinations**
- c. Percentage of people who underwent rehabilitation at an after-work sanatorium
- d. Frequency of case detection during examinations
- e. Percentage of people who were provided with diet meal

64. District doctor of rural medical department was called to a 42-year-old patient. While examining the patient, the doctor suspected the dysentery. What document must the doctor issue?

- a. Report addressed to Head of the village
- b. Urgent notification of infectious disease**
- c. Infectious disease report
- d. Statistical coupon of final (precise) diagnosis
- e. Abstract of outpatient medical card

65. A district doctor keeps the record of convalescents after infectious diseases, people who are disposed to frequent and long-lasting diseases, patients with chronic pathologies. What category of patients should belong to the III health group?

- a. Convalescents after infectious diseases and patients with chronic pathologies
- b. All above mentioned categories
- c. People disposed to frequent and long-lasting diseases
- d. People with chronic pathologies and disposed to frequent and long-lasting diseases
- e. People with chronic diseases**

66. Over a current year among workers of an institution 10% havent been ill a single time, 30% have been ill once, 15% - twice, 5% - 4 times, the rest - 5 and more times. What is the percentage of workers relating to the I health group?

- a. 60%
- b. 22%
- c. 10%
- d. 40%
- e. 55%**

67. In a forest summer camp children have variable procedures to harden their organisms. What procedure has the most hardening power?

- a. Hygienic shower
- b. Morning exercises on the fresh air
- c. Contrast shower**

- d. Walking on the fresh air
- e. Bath with hydromassage

68. There is a dynamic growth of number of congenital abnormalities such as central paralysis, newborns blindness, idiocy among the population that lives near to pesticides production enterprise. Compounds of which pollutant can cause the development of this pathology?

a. Chrome

**b. Mercury**

c. Cadmium

d. Strontium

e. Iron

69. Ats planned to construct multifield a new hospital in one of the cental city districts. What building type is the most appropriate in this case?

a. Centralized

b. Mixed

c. Blocked

**d. Centralized and blocked**

e. Decentralized

70. During inspection of sanitary conditions of studying at a technical university it was necessary to evaluate the visual regimen of students, who study from 9 a.m to 3 p.m. What index of natural light will be the most informative?

a. Time of the room insolation

b. Presence of mixed (superolateral) light

c. Light coefficient

d. Depth of study room

**e. Natural light coefficient**

71. 200 patients suffering from essential hypertension were examined in order to obtain data about patients arterial pressure and age. What statistic value should be applied in order to measure relation between these characteristics?

**a. Correlation coefficient**

b. Coefficient of variation

c. Sygmal deviation

d. Representation error

e. Students coefficient

72. A doctor of the general practice has registered the following death causes for the previous year: the first place was taken by cardiovascular diseases (60%), the second - by tumors (18%), then - traumas (8,3%) etc. What diagrams will provide the most substantial information about the registered occurrences?

a. Circle diagram

b. Column diagram

c. Cartogram

d. Line diagram

**e. Pie diagram**

73. On medical observation a doctor identified girl (162 cm tall and 59 kg weight) who complained loss of ability to see surrounding objects clearly in the evening. On examination: dry skin, hyperkeratosis. Her daily ration includes the following vitamines: vitamine A- 0,5 mg, vit.B1- 2,0 mg, vit.B2- 2,5 mg, vit.B6- 2 mg, vit.C- 70 mg. What is the hypovitaminosis type?

a. B6-hypovitaminosis

b. C-hypovitaminosis

c. B1-hypovitaminosis

d. B2-hypovitaminosis

**e. A-hypovitaminosis**

74. As a result of prophylactic medical examination a 35 year old woman was diagnosed with alimentary and constitutive obesity of the III degree. It is known from her anamnesis that the patient doesn't observe rules of rational nutrition: she often overeats, the last food intake is usually 10-15 minutes before going to bed, prefers fattening and rich in carbohydrates food. What is the main alimentary risk factor of obesity development?

- a. Lack of cellulose
- b. Violation of dietary pattern
- c. Excess of carbohydrates
- d. Excess of fats
- e. Energetic unprofitableness of nutrition**

75. The major repair of a hospital included renewal of colour design of hospital premises because it is of great psychological and aesthetical importance; and so the walls of patient wards will be painted under consideration of:

- a. Wall reflection coefficient
- b. Creation of cozy atmosphere
- c. Hospital profile
- d. Diseases of patients who will be staying in these wards

- e. Windows orientation**

76. Atmospheric air of an industrial centre is polluted with the following wastes of metallurgical plants: sulphuric, nitric, metal, carbon oxides that have negative influence upon the inhabitants health. The effect of these hazards can be characterized as:

- a. Adjacent
- b. Mixed
- c. Complex
- d. Associated

- e. Combined**

77. Study of morbidity rate in a city N revealed that population of different administrative districts differed in age structure. What statistic method allows to eliminate influence of this factor upon morbidity indices?

- a. Standardization**
- b. Correlative regressive analysis
- c. Calculation of average values
- d. Analysis of dynamic series
- e. Wilcoxon's t-criterion

78. A driver had been fixing a car in a closed garage and afterwards complained about headache, dizziness, nausea, muscle asthenia, sleepiness. Objectively: pulse and respiratory rate elevation, excitement, hypertension, delirium of persecution. What is the most likely diagnosis?

- a. Intoxication with carbon oxide**
- b. Posttraumatic encephalopathy
- c. Asthenovegetative syndrome
- d. Hypertensive crisis
- e. Intoxication with ethyl gasoline

79. An outbreak of food poisoning was recorded in an urban settlement. The illness was diagnosed as botulism on the grounds of clinical presentations. What foodstuffs should be chosen for analysis in the first place in order to confirm the diagnosis?

- a. Potatoes
- b. Boiled meat
- c. Cabbage
- d. Tinned food**
- e. Pasteurized milk

80. A worker who undergoes regular medical check-up for duodenal ulcer received a subsidized 24-day sanatorium voucher from his plant. The term of annual leave of a worker is 24 calendar days,

it will take 4 days more to get to the sanatorium and back home. What is the procedure of obtaining a 4-day sick-leave?

a. Medical Expert Commission issues a 4-day sick list

b. The doctor in charge issues a 4-day sick list

c. Medical Expert Commission issues a 4-day health certificate

d. The doctor in charge issues a health certificate and sanatorium patients file for 28 days

e. Medical Expert Commission issues a 28-day sick list

81. A 42 year old metalworker has been working at the turning machine for production of heavy large-size parts for 5 years. His work requires using of hand and pedal levers that involves considerable physical force. What means for osteoarthritis prevention should be recommended?

a. To improve health at the Black sea coast

b. To go in for weightlifting

c. To administer protein-and-carbohydrate diet

d. To administer protein-and-vitamin diet

e. To limit physical work

82. Administration of a plant producing red lead paint intends to form a group of medical specialists for periodical medical examinations. What specialist must be obligatory included into this group?

a. Psychiatrist

b. Gynaecologist

c. Neuropathologist

d. Dermatologist

e. Otolaryngologist

83. The total area of a ward at the therapeutical department is 28 m<sup>2</sup>. What is the maximum number of beds that can be exploited in this ward?

a. 3

b. 5

c. 1

d. 2

e. 4

84. The amount of ultraviolet radiation dose was measured in minutes. What device was applied for measurement of the biodose?

a. Actinometer

b. UV-meter

c. Gorbachevs biodosimeter

d. Radiometer

e. Catathermometer

85. A mother who is on partially paid maternity leave got sick and was hospitalized. What document is to be issued to a working father who will be taking care of a child during his mothers illness?

a. Extract from the medical card of out- or in-patient

b. Free-form certificate

c. Certificate of mothers illness

d. Certificate of childs care necessity

e. Sick-leave

86. Clinical and statistical study was devoted to the effect of a new pharmacological medication upon the patients with coronary heart disease. What parametric criterion (coefficient) can be used for estimation of results validity?

a. Sign criterion

b. Wilcoxon's t-criterion

c. Kolmogorov-Smirnovs criterion

d. Students coefficient (t)

e. Conformity coefficient

87. It is planned to make complete isolation boxes in the infectious department in order to prevent nosocomial airborne infections. The boxes consist of a tambour, a ward and a lock chamber. What structure should be also included in a complete isolation box?

- a. Doctors consulting room
- b. Manipulation room
- c. Bathroom unit**
- d. Patients examination room
- e. Nursing room

88. In terms of megacalorie ( $1000 \text{ kcal} = 4184 \text{ kJ}$ ) the ration of an adult includes 30 g of proteins, 37 g of fats, 137 g of carbohydrates, 15 mg of vitamin C, 0,6 mg of thiamine (vitamin B1). The ration is UNBALANCED as to the contents of:

- a. Carbohydrates
- b. Thiamine
- c. Proteins
- d. Fats
- e. Vitamin C**

89. A heat station working on solid fuel is located in a residential district. On cloudy foggy days in december there was an increase in diseases with upper airway affection and signs of general intoxication. There were also mortal cases among the elderly people. What is the most likely factor that provoked toxic effect?

- a. Calm
- b. High air humidity
- c. Suspended materials**
- d. Low air temperature
- e. Temperature gradient

90. Indices that characterize population health include demographic indices. What environment is used for calculation of these indices?

- a. Number of hospitalized people
- b. Employment number
- c. Population number**
- d. Number of patients
- e. Number of population being liable to preventive examination

91. While making sanitary examination of burn unit for adults it was stated that wards for 4 persons are of 28 m<sup>2</sup> square. What should be the minimum ward area in this unit?

- a. 40 m<sup>2</sup>**
- b. 28 m<sup>2</sup>
- c. 52 m<sup>2</sup>
- d. 30 m<sup>2</sup>
- e. 24 m<sup>2</sup>

92. The results of 5 year monitoring allowed to estimate the level of environmental influence upon health indices of popultaion. What statistic method should be chosen?

- a. Calculation of coefficient of difference validity
- b. Calculation of conformity coefficient
- c. Calculation of correlation coefficient**
- d. Calculation of regression coefficient
- e. Calculation of dynamic indices

93. In order to improve organism tolerance of boarding-school pupils a doctor developed a program. The program is based upon the following principles: graduality, consistency, individuality, coomplexity. What of the main principles of organism tempering wasnt taken into account?

- a. Increase of influence force
- b. Autodefense increase
- c. Systematicness**

- d. Increase of influence intensity
- e. Increase of resistance

94. At a machine-building plant the casts are cleaned by means of abrasion machines that are a source of local vibration. What are the most efficient preventive measures for preventing harmful effect of vibration on workers organisms?

- a. Use of gloves that reduce vibration
- b. Hand massaging
- c. Giving sanitary instructions to the workers
- d. Warm hand baths
- e. Preliminary and periodical medical examinations

95. In order to study impact of microclimate upon the human organism it is necessary to make systematic observation of air temperature over 3 days. Choose a device that will allow to make the most precise temperature records:

- a. Assmann psychrometer
- b. Thermograph
- c. Mercury thermometer
- d. Alcohol thermometer
- e. Augusts psychrometer

96. Poorly refined wastes of an industrial plant are usually thrown into the river that supplies drinking water. It causes perishing of some microorganisms, disturbs processes of water self-purification and worsens its quality that can have negative influence upon peoples health. How is this effect of environmental factors called?

- a. Associated
- b. Direct
- c. Indirect
- d. Complex
- e. Combined

97. In a city with population 400000 people 5600 fatal cases were recorded, including 3300 cases because of blood circulation diseases, 730 - because of tumors. What index will allow to characterize mortality from blood circulation diseases in this city?

- a. Relative intensity index
- b. Extensive index
- c. Intensive index
- d. Visuality index
- e. Correlation index

98. Statistic of patients of common medical practice displays constant increase in elderly and old people number. What kind of pathology is expected to prevail in the morbidity structure of population in question?

- a. Infectious pathology
- b. Chronic pathology
- c. Non-epidemic pathology
- d. Occupational pathology
- e. Acute pathology

99. During the medical examination a port crane operator complained of dizziness, nausea, sense of pressure against tympanic membranes, tremor, dyspnoea, cough. He works aloft, the work is connected with emotional stress. Workers are affected by vibration (general and local), noise, ultrasound, microclimate that warms in summer and cools in winter. What factor are the workers complaints connected with?

- a. Noise
- b. Intensity of work
- c. Altitude work
- d. Infrasound

e. Vibration

100. Preventive examination of an 11 year old boy helped to determine his habitus type. It was established that the child's shoulders were deviated and brought forward, with forward flexion of head, the thorax was flattened, abdomen was convex. The child's backbone had signs of deepened cervical and lumbar curvatures. What habitus is it?

a. Kyphosis

b. Round-shouldered

c. Normal

d. Corrected

e. Lordosis

101. A plot of land with total area of 2,0 hectare was intended for building of a hospital. The maximal capacity of the hospital will be:

a. 400 beds

b. 200 beds

c. 100 beds

d. 800 beds

e. Over 1000 beds

102. During hygienic examination of a hospital it was established that the area for each bed in a double ward was: in the infectious department for children - 7 m<sup>2</sup>, in the infectious department for adults - 8 m<sup>2</sup>, in the burns department - 9 m<sup>2</sup>, in the radiological department - 10 m<sup>2</sup>, in the critical care department - 13 m<sup>2</sup>. In which wards the area for each bed does not correspond with hygienic requirements?

a. In critical care wards

b. In burns wards

c. In infectious wards for adults

d. In infectious wards for children

e. In radiological wards

103. A 2 year old child has been ill with acute respiratory viral infection of upper thrice a year - in February, in April and in December. How should these occurrences be recorded?

a. It is necessary to fill in 1 statistic talon signed (+)

b. It is necessary to fill in 3 statistic talons signed (-)

c. It is necessary to fill in 3 statistic talons signed (+)

d. It is necessary to fill in 1 statistic talon signed (+) and 2 statistic talons signed (-)

e. It is necessary to fill in 1 statistic talon signed (-)

104. A worker diagnosed with "acute dysentery" was sent to the infectious department by a doctor of aid post. What document should be used for registration of this disease?

a. Statistic card of the patient who left in-patient hospital

b. Urgent report on infectious disease

c. Outpatients card

d. Statistic coupon for registration of final diagnoses

e. Inpatients card

105. Researchers studied disease incidence of influenza and acute respiratory viral infection within the last 5 years. What kind of graphic presentation should be used for the best visualization of this data?

a. Pie diagram

b. Histogram

c. Radial diagram

d. Linear diagram

e. Bar diagram

106. The correlation between the service record and eosinophil concentration in blood was studied in workers at dyeing shops of textile factories. What index will be the most informative for the analysis

of this data?

- a. Fitting criterion
- b. Sign index
- c. Students criterion
- d. Standardized index
- e. Correlation factor**

107. A department chief of an in-patient hospital is going to inspect resident doctors as to observation of medical-technological standards of patient service. What documentation should be checked for this purpose?

- a. Registry of operative interventions
- b. Annual report of a patient care institution
- c. Statistic cards of discharged patients
- d. Treatment sheets

**e. Health cards of in-patients**

108. Workers of a laboratory producing measuring devices (manometers, thermometers etc) complain about a metallic taste in mouth, stomatitis, dyspepsia, sleep disturbance, unsteady walk, abrupt decrease in cardiac activity. These presentations must have been caused by the intoxication with the following substance:

- a. Manganese
- b. Lead
- c. Mercury**
- d. Toluol
- e. Tetraethyl lead

109. Estimation of physical development of a child involved dynamometry and estimation of body weight and length, annual gain in body length, chest circumference, number of permanent teeth, secondary sexual characters, lung vital capacity. Which of the mentioned indices relates to the physiometric ones?

- a. Body length and weight, chest circumference
- b. Number of permanent teeth
- c. Annual gain in body length
- d. Lung vital capacity, dynamometry**
- e. Secondary sexual characters

110. Estimation of community health level involved analysis of a report on diseases registered among the population of district under charge (reporting form 12). What index is calculated on the grounds of this report?

- a. Index of pathological affection
- b. Index of hospitalized morbidity
- c. Index of basic non-epidemic morbidity
- d. Common morbidity rate**
- e. Index of morbidity with temporary disability

111. A 46-year-old patient was issued a 10-day sick list because of exacerbation of chronic cholecystitis. The patient's general condition got better, but the clinical manifestations of the disease are still present. What authority is entitled to extend the sick list?

- a. Head doctor
- b. Medical Expert Commission**
- c. Deputy head doctor for therapeutic management
- d. Family doctor
- e. Deputy head doctor for medical-labour expertise

112. A number of viable fetuses per 1000 women at the age between 15 and 44 is determined by:

- a. Genital index**
- b. Birth rate
- c. Obstetric rate

- d. Perinatal rate
- e. Reproductive level

113. Point out the unit for statistical observation for the determination of blood sugar level influence on a wound surface healing during postoperative period

- a. The patient who was discharged to outpatient treatment
- b. The patient in a postoperative period**
- c. Blood test
- d. Blood sugar level
- e. The patient who has a wound surface

114. What methods of collecting of the information is preferable for study of housing conditions of students of medical HIGH SCHOOL for a training period?

- a. Interviewing
- b. A method of the directed selection
- c. Statistical
- d. Questioning**
- e. Selecting of materials

115. What information gathering method is preferable to study housing conditions of medical students during training period?

- a. Statistical
- b. Questionnaire**
- c. Materials selection
- d. Interviewing
- e. Directed selection method

116. Choose a method of a graphic representation of monthly information about number of the registered cases of acute intestinal infection and their comparisons to the average monthly values, obtained for 5 previous years:

- a. The curvilinear diagram
- b. The linear diagram**
- c. The sector diagram
- d. The radial diagram
- e. The figured diagram

117. What method is applied to establish rate of correlation between age of men and their mortality due to myocardial infarction?

- a. Method of graduated correlation (Armler)
- b. Method of grade correlation (Spirman)**
- c. The quadrate method (Pirson)
- d. Correlation ratio
- e. The Indirect method (Student)

118. Indicate the registration medical document for the patient, who 21.02. was addressed to the doctor with diagnosis ARVD for the first time in this year:

- a. It is necessary to fill in the emergency notice on a case of a contagion
- b. The necessary registration form is not indicated
- c. The statistical coupon for registration of final diagnosis is not necessary
- d. The statistical coupon is to be filled in, but a sign (+) is not necessary to be put in
- e. The statistical coupon is to be filled in and it is necessary to deliver on a sign (+)**

119. Define the basic registration document at the profound study of a case rate with temporary lost labor ability at the industrial enterprise:

- a. The inpatient medical record
- b. A card of the personal account of a case rate**
- c. The sick-leave certificate
- d. The Report on reasons of a temporary lost labor ability

e. An ambulatory medical card

120. Head of a department and a trade-union group have appealed to the head of a hospital about dismissal of the senior nurse who has 17 year record of service. The facts of charge were confirmed and recognized by the nurse herself. This nurse lives with a daughter (who is divorced and unemployed) and a 9-month-old grandson. Make an administrative decision:

a. -

b. To continue the worker in office with a warning of dismissal in case of repeated violation of labor discipline

c. To issue the sick list

d. To discharge the worker, i.e. to satisfy demands of the collective

e. To shift the solution of this problem on other officials or public organizations

121. 25 unorganized children in the age 2-3 year will be observed on a pediatric district it in the current year. What scheduled number of initial visitations will make to this group of children?

a. 50

b. 40

c. 200

d. 100

e. 20

122. A child is 6 years old. Within one year of observation he had URI that lasted 8 days. Physical state is satisfactory. Specify his health group:

a. II

b. III (b)

c. III (c)

d. I

e. III (a)

123. A 38 year old man was admitted to a hospital from his working place on July 19 because of hip fracture. He was invalid till November 19. Requires prolongation of treatment. Who decides on the issue of further temporary invalidity?

a. Specialized (traumatologic) MSEC

b. The head physician of a polyclinic

c. Regional MSEC

d. Interregional general MSEC

e. DCC

124. What is the maximum duration of medical certificate in case of tuberculosis?

a. Month

b. 10 months

c. Week

d. 2 weeks

e. 2 months

125. An engineer-chemist at the age of 47 often falls ill with an occupational skin disease. Who makes a decision to transfer him to other job accepts?

a. The chief of shop

b. MSEC

c. A head physician

d. The attending physician

e. DCC

126. A sample of milk was taken for testing from a 5 ton milk batch. Lab analysis showed the following: fat content 2%, specific density- 1,04 g/cm<sup>3</sup>, acidity 21°C, reductase probe - weak positive. What way the product is to be used in? What would you advise?

a. Annihilate the product

b. Sell but inform customers about milk quality

- c. Utilize technically
- d. Write the product off for animal feeding
- e. Sell without limitations

127. A 5 tons milk batch was sampled. The lab analysis revealed: fat content 2%, specific density - 1,04 g/cm<sup>3</sup>, acidity - 210T, reductase probe - weak-positive. What way is the product to be used in?

- a. Do the product away
- b. Sell but inform customers about milk quality

- c. Technical utilization
- d. Discard for animal feeding
- e. Sell without limitations

128. The student has the following devices: Geiger counter, Ebert counter, Krotovs apparatus, Mischuk device, Ebert device. What device can he use to assess air germ pollution?

- a. Mischuks device
- b. Eberts device
- c. Eberts counter
- d. Geigers counter

- e. Krotovs apparatus

129. Thyreotoxicosis patient is in the two-place hospital ward of therapeutic department. The area of the ward is 18 m<sup>2</sup>, height is 3 m, ventilation rate is 2,5/h. Air temperature is 200C, relative humidity is 45%, air movement velocity is 0,3 m/sec, light coefficient is 1/5, noise level constitutes 30 dB. Make a hygienic assessment of these conditions

- a. Discomfortable microclimate

- b. Poor lighting
- c. All conditions are OK
- d. High level of noise
- e. Non-effective ventilation

130. A 9 y.o. girl has an average height and harmonic growth development. She was ill with acute respiratory infection for five times. Define the group of her health

- a. 2nd group
- b. 3rd group
- c. 5th group
- d. 4th group
- e. 1st group

131. A 30-year-old patient with complaints of occipital headache, disturbed sleep with nightmares came to a policlinic. BP was 150/95 mm Hg. He was diagnosed with hypertensive crisis. The patient should be registered in the following dispensary group for arterial hypertension surveillance:

- a. In the third
- b. In the fifth
- c. In the first
- d. In the fourth

- e. In the second

132. 25 children at the age of 2-3 years who dont attend any child welfare institutions should be observed by a district pediatrician within the current year. How many initial visits of this group of children should be planned?

- a. 200
- b. 50
- c. 40
- d. 20
- e. 100

133. A teacher of a secondary school was diagnosed with pulmonary tuberculosis. What is the maximum duration of his medical certificate?

- a. Four months
- b. Five months
- c. **Ten months**
- d. Two months
- e. A month

134. An employee of a private company was ill with acute respiratory viral infection. Consulted a district doctor, who determined the fact of temporary loss of working ability, but refused to issue a sick-list, arguing that the patient worked in the private and not state-owned company. Should the sick-list be issued to the employees of private companies?

- a. Issued regardless of company's ownership**

- b. Issued only on condition of payment guarantee by the company's proprietor
- c. Issued a medical certificate of a free form
- d. Issued a medical certificate of a set form
- e. Issued only to employees of state-owned companies

135. Clinic of a research institute for occupational diseases examined a worker who works at a concentration plant and diagnosed him with chronic dust bronchitis. The case is investigated by a commission including the representatives of: the plant, clinic, territorial SES, department of Social Insurance Fund, trade union. According to the "regulation on investigation of...", the commission should be headed by the representative of the following authority:

- a. Clinic

- b. Territorial SES**

- c. Social Insurance Fund
- d. Plant
- e. Trade union

136. Basing upon the data of laboratory assessment of sanitary state of soil in a certain territory, the soil was found to be low-contaminated according to the sanitary indicative value; contaminated according to the coliform titer; low-contaminated according to the anaerobic titer (Cl. Perfringens). This is indicative of:

- a. Insufficient intensity of soil humification
- b. Constant entry of organic protein contaminations
- c. Insufficient insulation and aeration of soil

- d. Fresh fecal contamination**

- e. Old fecal contamination

137. A maternity hospital registered 616 live births, 1 stillbirth, 1 death on the 5th day of life over a 1 year period. What index allows the most precise estimation of this situation?

- a. Neonatal mortality
- b. Natural increase
- c. Crude mortality rate
- d. Natality

- e. Perinatal mortality**

138. A patient complained about problems with pain and tactile sensitivity, pain in the nail bones at the end of the working day. He works at a plant with mechanical devices. What pathology can be suspected?

- a. Caisson disease
- b. Overwork symptoms
- c. Hypovitaminosis of B1

- d. Vibration disease**

- e. Noise disease

139. Bacterial analysis of air in a living space in winter period by means of Krotov's apparatus revealed that total number of microorganisms in 1m<sup>3</sup> of air was 7200. What is the permissible number of microorganisms for the air to be characterized as "pure"?

- a. Up to 3500

b. Up to 2500

c. Up to 4500

d. Up to 5500

e. Up to 7500

140. Maximum permissible concentration of carbon dioxide in the air is considered to be a sanitary index of air purity in a classroom. What concentration of carbon dioxide in the air is accepted as maximum permissible?

a. 0,1%

b. 0,15%

c. 0,3%

d. 0,2%

e. 0,05%

141. Study of actual diet of an adult revealed the following: proteins make up 16% of energy value of daily ration, fats - 25%, carbohydrates - 59%. Evaluate compliance of protein, fat and carbohydrate share in the energy value of daily ration with the recommended shares of these nutrients?

a. Carbohydrate share is insufficient, there is excess of proteins

b. Carbohydrate share is insufficient

c. Nutrient content complies with the recommended shares of energy value

d. Carbohydrate share is excessive

e. Fat share is insufficient

142. A patient who has been consuming refined foodstuffs for a long time complains about headache, fatigability, depression, insomnia, irritability. Objectively: muscle asthenia, pain and cramps in the gastrocnemius muscles, during walking the patient lands onto his heel first, then on the external edge of foot. Cardiovascular system exhibits tachycardia, hypoxia, dystrophic changes of myocardium.

There are also gastrointestinal disorders. What is the most likely diagnosis?

a. Hypovitaminosis D15

b. Hypovitaminosis B1

c. Hypovitaminosis B12

d. Hypovitaminosis B2

e. Hypovitaminosis B6

143. A patient who had eaten mushrooms in the morning was delivered to the infectious diseases hospital at night. The disease development was rapid. The patient presented with stomach pain, frequent diarrhea, intractable vomiting, burning thirst, headache and dizziness. He died on the third day. What mushrooms are most likely to have caused mycetismus?

a. Fly agarics

b. Morels

c. Deadly amanita

d. Sulfur-tufts

e. Russules

144. Periodical survey of a worker of a chemicals plant revealed a malignant neoplasm on the urinary bladder. This occupational disease was the most probably caused by contact with the following industrial poison:

a. Arsenic

b. Benzidine

c. Nickel carbonyl

d. Vinyl chloride

e. Asbestos

145. A 37 year old patient applied to a local therapist. As a result of exacerbation of chronic obstructive bronchitis the patient had been temporarily disabled for 117 days within 1 year. What tactics will be legally correct?

a. The patient should be referred to the medical consultation commission for extension of medical certificate

- b. The therapist should extend a medical certificate
- c. The patient should be referred to the medicosocial expertise
- d. The therapist should issue a new medical certificate
- e. The patient should be referred to the sanatorium-and-spa treatment

146. A 46-year-old patient once took part in elimination of breakdown at an atomic power plant. Currently he is being treated at an in-patient hospital. He was diagnosed with progressing vegetative insufficiency. This disease relates to the following group of ionizing radiation effects:

- a. Hormesis
- b. Heterosis
- c. Somatic
- d. Genetic
- e. Somato-stochastic

147. In treatment and prevention establishments, regardless of their organisational and proprietary form, the rights of patients should be observed. Which of these rights is the most significant?

- a. The right to the free choice
- b. The right to be heard
- c. The right to the protection from incompetence
- d. The right to the protection of the patients interests
- e. The right to the information

148. A military unit stopped for 3-days rest in an inhabited locality after a long march. The sanitary-epidemiological reconnaissance found several water sources. It is necessary to choose the source complying with the hygienic standards for drinking water in the field conditions:

- a. Rain water
- b. Melt snow water
- c. Spring water
- d. River water
- e. Artesian well water

149. A military unit stopped for 3-days rest in an inhabited locality after a long march. The sanitary-epidemiological reconnaissance found several water sources. It is necessary to choose the source complying with the hygienic standards for drinking water in the field conditions:

- a. Spring water
- b. Rain water
- c. Melt snow water
- d. Artesian well water
- e. River water

150. A district doctor was commissioned with a task to work out a plan of treatment-and-prophylaxis actions for the population of his district. What actions of secondary prophylaxis must he include into this plan?

- a. Disease prevention
- b. Improvement of populations living conditions
- c. Rehabilitation actions
- d. Prevention of disease complications
- e. Elimination of disease causes

151. The district pediatrician is charged with the analysis of infant mortality. What is taken for the unit of observation in infant mortality investigation?

- a. A baby dead at the age up to 6 days
- b. A baby dead at birth
- c. A baby dead at the age up to 1 months
- d. A baby dead at the age over 28 days
- e. A baby dead at the age up to 12 months

152. Chief district pediatrician has to carry out analysis of infant mortality rate. What should he take

as a unit of the observation?

- a. Child death case on labor
- b. Child death case at the age up to 1 year**
- c. Child death case after 28 days of life
- d. Child death case at the age up to the first month
- e. Child death case during first 7 days of life

153. Deputy of chief medical officer carried out a study of morbidity rate for population which had been served at the polyclinics within the last 5 years. What statistical values can help in calculation of morbidity rates?

- a. Relative values**

- b. Average values
- c. Dynamic series
- d. Absolute values
- e. Standard values

154. Deputy of chief medical officer carried out a study of morbidity rate for population which had been served at the polyclinics for the last 5 years. What statistical values can help in calculations of diseases level dissemination?

- a. Average values
- b. Standart values

- c. Relative values**

- d. Absolute values
- e. Dynamic row

155. There were registered 500 cases of urolithiasis per 10000 inhabitants. What kind of statictical indices is presented?

- a. Index of visualization
- b. Correlation coefficient

- c. Prevalence rate**

- d. Incidence rate
- e. Index of compliance

156. At year-end hospital administration has obtained the following data: annual number of treated patients and average annual number of beds used for patients treatment. What index of hospital work can be calculated on the base of this data?

- a. Average bed idle time

- b. Bed turnover**

- c. Average annual bed occupancy
- d. Bed resources of the hospital
- e. Average duration of patients presence in the hospital

157. Examination of a 13-year-old boy reveals that his body length is 147 cm (+2), body weight - 38 kg (+1,5), circumference of chest - 72 cm (+0,2). Estimate the harmonicity of the childs physical development:

- a. Harmonious
- b. Sharply disharmonious
- c. Supernormal

- d. Disharmonious**

- e. Above the average

158. A childrens health camp received a party of tinned food. External examination of the tins revealed that they had deep dents, could be easily concaved when pressed and wouldnt immediately return to the initial state; rust was absent; the tins were greased with inedible fat. Specify the bloat type:

- a. Combined
- b. Physicochemical
- c. Chemical

d. Biological

e. Physical

159. On physiologic-sanitary examination of railway department work it was revealed that loaders work is of III degree of difficulty. They unload vagons with sand, manually break coagulated mass by shovel and shift it. What criteria was used to evaluate work of loaders?

a. Intellectual efforts

b. Maximum load weight which is shifted

c. Time of active activities, % to the shift duration

d. Value of static loading for the shift

e. Time of passive observation, % to the shift duration

160. Workers of fishery are subjected to low temperatures of the air (from 5 till 15°C). Diseases of what organs and systems are the most frequent among workers of such enterprises?

a. Cardiovascular system

b. Liver

c. Gastrointestinal tract

d. Respiratory system

e. Blood

161. An outpatient hospital made record of 11600 diseases within one year. Among them influenza and ARD make up 5800, circulatory system diseases - 3480, digestion diseases - 1300, other diseases - 1020. What relative index can be calculated according this data?

a. Intensive

b. Correlation

c. -

d. Extensive

e. Visualization

162. Prevalence of a disease in region N amounted 1156 occurrences per 1000 of inhabitants. What of the mentioned indices characterizes the disease prevalence?

a. Standardized

b. Intensive

c. Ratio

d. Extensive

e. Visual index

163. A pupil of the 8th form after trauma has acute atrophy of the left arm muscles, tonus of which is distinctly decreased, active movements are only in the left joint, pupils foot is deformed. Function of support of the left leg is absent, support function of the right leg is preserved. The boy wears an orthopedic footwear. What group of physical training does the boy belong to?

a. Preparatory

b. Special

c. Additional

d. Basic

e. Other

164. District physician was charged with plan drafting concerning medical and preventive measures among the population in the area he is assigned to. What measures must he include in this plan as regards primary prevention of illness?

a. Referral of patients to sanatorium

b. Measures to improve patients life conditions

c. Prevention of disease complications

d. Prevention of disease onset

e. Measures to increase patients life quality

165. A therapist needs to analyze adult health in the area of service. Which groups of indicators will be included into this analysis?

a. Demographic, sickness rates, disability

b. Sickness rates, disability, death rates

c. Sickness rates, death rates, physical development

d. Birth rates, sickness rates, disability

e. Demographic, sickness rates, physical development

166. At the radiological unit of the hospital , gamma-devices of radiotherapy of "Agat" type and other closed sources of ionizing radiation are used for treatment of malignant neoplasms. What are the measures to be taken to protect personnel at the time of work with radioactive sources of such type?

a. Capsulation of devices and organization of room ventilation

b. The increase of distance to the source and individual hygiene compliance

c. Systematical cleansing of surfaces from the radioactive contamination and shortening of working time

d. Shortening of working time and screening of the source

e. Screening of the source and the use of means of individual protection of respiration organs

167. At the radiological unit of a hospital gamma-devices of radiotherapy of "Agat" type and other closed sources of ionizing radiation are used for treatment of malignant neoplasms. What measures are to be taken to protect personnel during working with radioactive sources of such type?

a. Reduction of working time and screening of the source

b. Screening of the source and the use of means of individual protection of respiration organs

c. Systematical cleansing of surfaces from the radioactive contamination and shortening of working time

d. The increase of distance to the source and individual hygiene compliance

e. Capsulation of devices and organization of room ventilation

168. A patient undergoes inpatient treatment with the diagnosis of acute pancreatitis. To spare pancreas as much as possible the doctor prescribed for him starvation for 1-3 days. What products is the patient allowed to eat during recovery period after cancelling of starvation?

a. Grape juice

b. Potato and carrot mash

c. Boiled meat

d. Broth

e. Milk

169. To study physical development of children and adolescents, anthropometric studies are widely used. Choose a physiometric method of study from the below given

a. Determination of vital capacity of lungs

b. Determination of thorax form

c. Determination of body weight

d. Determination of vertebra form

e. Measurement of growth

170. Study of morbidity with temporary disability among workers of a machine building plant revealed that average duration of a case was 20 days. What diseases influenced upon the index value?

a. Chronic

b. Subacute

c. Hard to determine

d. Preexisting diseases

e. Acute

171. A patient is on the sick leave for 4 months continuously from the date of injury. The treatment is going to last for 1-2 months. Who has the right to extend the duration of medical certificate for this patient?

a. Medical advisory commission after medico-social expert commission examination

b. Medical advisory commission after inpatient treatment

c. Medico-social expert commission

d. District doctor by agreement with a department chief

e. Medical superintendent

172. Working conditions of a building company worker are characterized by cooling microclimate effect, silica-containing dust, caustic alkali (quickslime) and noise. What medical expert should be the chief of the commission that periodically examines the workers of the mentioned category?

a. Ophthalmologist

b. Dermatologist

c. Otolaryngologist

d. Therapeutist

e. Neurologist

173. It is determined that 30 of a 100 women with risk factor had preterm labor, and of a 100 women without risk factor 5 women had preterm labor. What method of statistic data processing should the doctor use in order to estimate reliability of differences between the compared groups?

a. Average computing

b. Standardization method

c. Correlation analysis

d. Students criterion calculation

e. Relative numbers calculation

174. 350 workers of a metallurgical plant had to undergo a yearly preventive examination. A territorial polyclinic carried out preventive examination of 325 workers. As a result of it, 1 worker was recognized as temporarily disabled, 15 workers underwent further rehabilitation at an after-work sanatorium, 10 workers were provided with diet meal. What index characterizing the preventive work of the polyclinic should be applied in this case?

a. Coverage of preventive medical examinations

b. Percentage of people who underwent rehabilitation at an after-work sanatorium

c. Percentage of temporarily disabled people

d. Percentage of people who were provided with diet meal

e. Frequency of case detection during examinations

175. District doctor of rural medical department was called to a 42-year-old patient. While examining the patient, the doctor suspected the dysentery. What document must the doctor issue?

a. Abstract of outpatient medical card

b. Report addressed to Head of the village

c. Statistical coupon of final (precise) diagnosis

d. Infectious disease report

e. Urgent notification of infectious disease

176. A district doctor keeps the record of convalescents after infectious diseases, people who are disposed to frequent and long-lasting diseases, patients with chronic pathologies. What category of patients should belong to the III health group?

a. People with chronic diseases

b. People with chronic pathologies and disposed to frequent and long-lasting diseases

c. All above mentioned categories

d. Convalescents after infectious diseases and patients with chronic pathologies

e. People disposed to frequent and long-lasting diseases

177. Over a current year among workers of an institution 10% haven't been ill a single time, 30% have been ill once, 15% - twice, 5% - 4 times, the rest - 5 and more times. What is the percentage of workers relating to the I health group?

a. 55%

b. 40%

c. 22%

d. 60%

e. 10%

178. In a forest summer camp children have variable procedures to harden their organisms. What

procedure has the most hardening power?

- a. Bath with hydromassage
- b. Contrast shower**
- c. Hygienic shower
- d. Morning exercises on the fresh air
- e. Walking on the fresh air

179. There is a dynamic growth of number of congenital abnormalities such as central paralysis, newborns blindness, idiocy among the population that lives near to pesticides production enterprise. Compounds of which pollutant can cause the development of this pathology?

- a. Iron
- b. Chrome
- c. Strontium
- d. Cadmium
- e. Mercury**

180. Ats planned to construct multifield a new hospital in one of the cental city districts. What building type is the most appropriate in this case?

- a. Mixed
- b. Blocked
- c. Centralized
- d. Decentralized
- e. Centralized and blocked**

181. During inspection of sanitary conditions of studying at a technical university it was necessary to evaluate the visual regimen of students, who study from 9 a.m to 3 p.m. What index of natural light will be the most informative?

- a. Light coefficient
- b. Time of the room insolation
- c. Presence of mixed (superolateral) light
- d. Natural light coefficient**
- e. Depth of study room

182. 200 patients suffering from essential hypertension were examined in order to obtain data about patients arterial pressure and age. What statistic value should be applied in order to measure relation between these characteristics?

- a. Coefficient of variation
- b. Students coefficient
- c. Correlation coefficient**
- d. Representation error
- e. Sygmal deviation

183. A doctor of the general practice has registered the following death causes for the previous year: the first place was taken by cardiovascular diseases (60%), the second - by tumors (18%), then - traumas (8,3%) etc. What diagrams will provide the most substantial information about the registered occurrences?

- a. Pie diagram**
- b. Line diagram
- c. Column diagram
- d. Circle diagram
- e. Cartogram

184. On medical observation a doctor identified girl (162 cm tall and 59 kg weight) who complained loss of ability to see surrounding objects clearly in the evening. On examination: dry skin, hyperkeratosis. Her daily ration includes the following vitamines: vitamine A- 0,5 mg, vit.B<sub>1</sub>- 2,0 mg, vit.B<sub>2</sub>- 2,5 mg, vit.B<sub>6</sub>- 2 mg, vit.C- 70 mg. What is the hypovitaminosis type?

- a. B1-hypovitaminosis
- b. B6-hypovitaminosis**

- c. C-hypovitaminosis
- d. A-hypovitaminosis**
- e. B2-hypovitaminosis

185. As a result of prophylactic medical examination a 35 year old woman was diagnosed with alimentary and constitutive obesity of the III degree. It is known from her anamnesis that the patient doesn't observe rules of rational nutrition: she often overeats, the last food intake is usually 10-15 minutes before going to bed, prefers fattening and rich in carbohydrates food. What is the main alimentary risk factor of obesity development?

- a. Energetic unprofitableness of nutrition**
- b. Excess of fats
- c. Violation of dietary pattern
- d. Lack of cellulose
- e. Excess of carbohydrates

186. The air of a foundry workers working zone contains condensation aerosol with dust particles sized 2 nm (90%), 2-5 nm (2%), over 5 nm(6%), below 2 nm (about 2%). Characterize the dust dispersivity:

- a. Ultrafine-dispersed
- b. Mist
- c. Median-dispersed
- d. Coarsely dispersed
- e. Fine-dispersed**

187. Atmospheric air of an industrial centre is polluted with the following wastes of metallurgical plants: sulphuric, nitric, metal, carbon oxides that have negative influence upon the inhabitants health. The effect of these hazards can be characterized as:

- a. Mixed
- b. Combined**
- c. Associated
- d. Complex
- e. Adjacent

188. Study of morbidity rate in a city N revealed that population of different administrative districts differed in age structure. What statistic method allows to eliminate influence of this factor upon morbidity indices?

- a. Correlative regressive analysis
- b. Wilcoxon's t-criterion
- c. Standardization**
- d. Analysis of dynamic series
- e. Calculation of average values

189. A driver had been fixing a car in a closed garage and afterwards complained about headache, dizziness, nausea, muscle asthenia, sleepiness. Objectively: pulse and respiratory rate elevation, excitement, hypertension, delirium of persecution. What is the most likely diagnosis?

- a. Hypertensive crisis
- b. Asthenovegetative syndrome
- c. Intoxication with ethyl gasoline
- d. Posttraumatic encephalopathy
- e. Intoxication with carbon oxide**

190. An outbreak of food poisoning was recorded in an urban settlement. The illness was diagnosed as botulism on the grounds of clinical presentations. What foodstuffs should be chosen for analysis in the first place in order to confirm the diagnosis?

- a. Pasteurized milk
- b. Potatoes
- c. Tinned food**
- d. Boiled meat

e. Cabbage

191. A worker who undergoes regular medical check-up for duodenal ulcer received a subsidized 24-day sanatorium voucher from his plant. The term of annual leave of a worker is 24 calendar days, it will take 4 days more to get to the sanatorium and back home. What is the procedure of obtaining a 4-day sick-leave?

- a. The doctor in charge issues a 4-day sick list
- b. Medical Expert Commission issues a 28-day sick list
- c. Medical Expert Commission issues a 4-day sick list**
- d. The doctor in charge issues a health certificate and sanatorium patients file for 28 days
- e. Medical Expert Commission issues a 4-day health certificate

192. A 42 year old metalworker has been working at the turning machine for production of heavy large-size parts for 5 years. His work requires using of hand and pedal levers that involves considerable physical force. What means for osteoarthritis prevention should be recommended?

- a. To go in for weightlifting
- b. To limit physical work**
- c. To administer protein-and-vitamin diet
- d. To administer protein-and-carbohydrate diet
- e. To improve health at the Black sea coast

193. The total area of a ward at the therapeutical department is 28 m<sup>2</sup>. What is the maximum number of beds that can be exploited in this ward?

- a. 4**
- b. 2
- c. 5
- d. 3
- e. 1

194. The amount of ultraviolet radiation dose was measured in minutes. What device was applied for measurement of the biodose?

- a. Radiometer
- b. Catathermometer
- c. UV-meter
- d. Actinometer
- e. Gorbachevs biodosimeter**

195. The institutions which take part in carrying out medical examinations can be prevention and treatment facilities, medical board of Ministry of Defense, medical board of Ministry of Home Affairs, medico-social expert commissions, forensic medical boards etc. What institutions are responsible for temporary disability examination?

- a. Prevention and treatment facilities**
- b. Medico-social expert commissions
- c. Medical boards of Ministry of Home Affairs
- d. Medical boards of Ministry of Defense
- e. Sanitary-and-prophylactic institutions

196. A mother who is on partially paid maternity leave got sick and was hospitalized. What document is to be issued to a working father who will be taking care of a child during his mothers illness?

- a. Certificate of mothers illness
- b. Extract from the medical card of out- or in-patient
- c. Free-form certificate
- d. Sick-leave**
- e. Certificate of childs care necessity

197. Clinical and statistical study was devoted to the effect of a new pharmacological medication upon the patients with coronary heart disease. What parametric criterion (coefficient) can be used for estimation of results validity?

a. Students coefficient (t)

b. Conformity coefficient

c. Kolmogorov-Smirnovs criterion

d. Wilcoxon's t-criterion

e. Sign criterion

198. It is planned to make complete isolation boxes in the infectious department in order to prevent nosocomial airborne infections. The boxes consist of a tambour, a ward and a lock chamber. What structure should be also included in a complete isolation box?

a. Bathroom unit

b. Doctors consulting room

c. Nursing room

d. Patients examination room

e. Manipulation room

199. Educational rooms are illuminated with various lighting fittings. What type of lighting fittings is the most appropriate in respect of hygienic norms?

a. Combined light fittings

**b. Indirect light fittings**

c. Semi-reflected light fittings

d. Direct light fittings

e. Ambient light fittings

200. In terms of megacalorie (1000 kcal = 4184 kJ) the ration of an adult includes 30 g of proteins, 37 g of fats, 137 g of carbohydrates, 15 mg of vitamin C, 0,6 mg of thiamine (vitamin B1). The ration is UNBALANCED as to the contents of:

a. Proteins

b. Carbohydrates

c. Thiamine

**d. Vitamin C**

e. Fats

201. A heat station working on solid fuel is located in a residential district. On cloudy foggy days in December there was an increase in diseases with upper airway affection and signs of general intoxication. There were also mortal cases among the elderly people. What is the most likely factor that provoked toxic effect?

a. High air humidity

b. Low air temperature

c. Temperature gradient

**d. Suspended materials**

e. Calm

202. While making sanitary examination of burn unit for adults it was stated that wards for 4 persons are of 28 m<sup>2</sup> square. What should be the minimum ward area in this unit?

a. 30 m<sup>2</sup>

b. 52 m<sup>2</sup>

c. 24 m<sup>2</sup>

d. 28 m<sup>2</sup>

**e. 40 m<sup>2</sup>**

203. In order to improve organism tolerance of boarding-school pupils a doctor developed a program. The program is based upon the following principles: graduality, consistency, individuality, complexity. What of the main principles of organism tempering wasnt taken into account?

**a. Systematicness**

b. Increase of influence force

c. Increase of resistance

d. Increase of influence intensity

e. Autodefense increase

204. A student analyzes noise level of cold-pressing process. What device should be applied for this hygienic study?

- a. Pyranometer
- b. Noise and vibration analyzer**

- c. Sound tester
- d. Noise analyzer
- e. Actinometer

205. Environmental pollution is prevented by mechanical separation of nontoxic solid domestic waste.

Specify the method which can be used for mechanical utilization of these wastes:

- a. Burial of wastes
- b. Waste neutralization in biothermal boxes
- c. Hydrolysis
- d. Burning as power-plant fuel

- e. Compressing of wastes into building blocks**

206. At a machine-building plant the casts are cleaned by means of abrasion machines that are a source of local vibration. What are the most efficient preventive measures for preventing harmful effect of vibration on workers organisms?

- a. Hand massaging
- b. Preliminary and periodical medical examinations

- c. Use of gloves that reduce vibration**

- d. Warm hand baths
- e. Giving sanitary instructions to the workers

207. In order to study impact of microclimate upon the human organism it is necessary to make systematic observation of air temperature over 3 days. Choose a device that will allow to make the most precise temperature records:

- a. Alcohol thermometer
- b. Augsts psychrometer
- c. Assmann psychrometer

- d. Thermograph**

- e. Mercury thermometer

208. The Carpathian region is characterized by constant high humidity of atmospheric air (over 80%). Inhabitants of this region feel severe cold in corresponding season at a medium low temperature. Its caused by heat emission by:

- a. Conduction
- b. -
- c. Radiation
- d. Vaporization

- e. Convection**

209. Poorly refined wastes of an industrial plant are usually thrown into the river that supplies drinking water. It causes perishing of some microorganisms, disturbs processes of water self-purification and worsens its quality that can have negative influence upon peoples health. How is this effect of environmental factors called?

- a. Combined

- b. Indirect**

- c. Associated
- d. Direct
- e. Complex

210. In a city with population 400000 people 5600 fatal cases were recorded, including 3300 cases because of blood circulation diseases, 730 - because of tumors. What index will allow to characterize mortality from blood circulation diseases in this city?

- a. Extensive index
- b. Visuality index**

c. Correlation index

d. Intensive index

e. Relative intensity index

211. Statistic of patients of common medical practice displays constant increase in elderly and old people number. What kind of pathology is expected to prevail in the morbidity structure of population in question?

a. Occupational pathology

b. Acute pathology

c. Infectious pathology

d. Chronic pathology

e. Non-epidemic pathology

212. In the current year general practitioners of the municipal polyclinic have referred 11 patients with coronary artery disease to the in-patient hospital. In 3 cases the diagnosis wasnt confirmed. What managerial decision shoud be made in such case?

a. Analysis of material and technical basisof the polyclinic

b. Analysis of each case of diagnostic divergence

c. Analysis of diagnostic examination quality

d. Analysis of medical check-up quality

e. Analysis of doctors skill level

213. During the medical examination a port crane operator complained of dizziness, nausea, sense of pressure against tympanic membranes, tremor, dyspnoea, cough. He works aloft, the work is connected with emotional stress. Workers are affected by vibration (general and local), noise, ultrasound, microclimate that warms in summer and cools in winter. What factor are the workers complaints connected with?

a. Infrasound

b. Vibration

c. Altitude work

d. Intensity of work

e. Noise

214. It is required to analyze the level of daylight illumination in a ward of therapeutics unit. What device should be applied to estimate the level of daylight illumination?

a. Illuminometer

b. Katathermometer

c. Psychrometer

d. Actinometer

e. Anemometer

215. A factory worker has ARD complicated by acute bronchitis. He receives treatment in the outpatient setting. The attending doctor has issued him a medical certificate for 5 days and then extended its duration by 5 more days. Patient cant get down to work because of his health status. Who should extend the duration of medical certificate for this patient?

a. Deputy medical superintendent in charge of medical treatment

b. Medical advisory commission

c. Medical superintendent

d. Deputy medical superintendent in charge of temporary disability examination

e. A department chief

216. Preventive examination of an 11 year old boy helped to determine his habitus type. It was established that the childs shoulders were deviated and brought forward, with forward flexion of head, the thorax was flattened, abdomen was convex. The childs backbone had signs of deepened cervical and lumbar curvatures. What habitus is it?

a. Round-shouldered

b. Lordosis

c. Kyphosis

- d. Corrected
- e. Normal

217. A plot of land with total area of 2,0 hectare was intended for building of a hospital. The maximal capacity of the hospital will be:

- a. Over 1000 beds
- b. 100 beds**
- c. 400 beds
- d. 200 beds
- e. 800 beds

218. During hygienic examination of a hospital it was established that the area for each bed in a double ward was: in the infectious department for children - 7 м<sup>2</sup>, in the infectious department for adults - 8 м<sup>2</sup>, in the burns department - 9 м<sup>2</sup>, in the radiological department - 10 м<sup>2</sup>, in the critical care department - 13 м<sup>2</sup>. In which wards the area for each bed doesn't correspond with hygienic requirements?

- a. In infectious wards for children
- b. In radiological wards
- c. In critical care wards
- d. In burns wards**
- e. In infectious wards for adults

219. According to the report of water quality control, drinking city water has the following characteristics: turbidity - 1,5 mg/m<sup>3</sup>, odour - 3 points, metallic taste - 2 points, pale yellow colour, colour index - 20°, temperature - 12°. Which of these factors doesn't comply with hygienic requirements?

- a. Taste
- b. Odour**
- c. Colour index
- d. Turbidity
- e. Temperature

220. A 2 year old child has been ill with acute respiratory viral infection of upper thrice a year - in February, in April and in December. How should these occurrences be recorded?

- a. It is necessary to fill in 3 statistic talons signed (-)
- b. It is necessary to fill in 1 statistic talon signed (+) and 2 statistic talons signed (-)
- c. It is necessary to fill in 1 statistic talon signed (-)
- d. It is necessary to fill in 3 statistic talons signed (+)**
- e. It is necessary to fill in 1 statistic talon signed (+)

221. A worker diagnosed with "acute dysentery" was sent to the infectious department by a doctor of aid post. What document should be used for registration of this disease?

- a. Outpatients card
- b. Statistic coupon for registration of final diagnoses
- c. Urgent report on infectious disease**
- d. Inpatients card
- e. Statistic card of the patient who left in-patient hospital

222. Researchers studied disease incidence of influenza and acute respiratory viral infection within the last 5 years. What kind of graphic presentation should be used for the best visualization of this data?

- a. Histogram
- b. Radial diagram
- c. Pie diagram
- d. Bar diagram
- e. Linear diagram**

223. The correlation between the service record and eosinophil concentration in blood was studied in

workers at dyeing shops of textile factories. What index will be the most informative for the analysis of this data?

- a. Standardized index
- b. Students criterion
- c. Correlation factor
- d. Fitting criterion
- e. Sign index

224. While assessing the health status of graduates of a secondary school, the doctor found one of them to have grade 3 tonsillar hypertrophy, chronic rhinitis and vegetative-vascular dystonia. The organism functionality is reduced. This student belongs to the following health group:

- a. I
- b. II
- c. III
- d. IV
- e. V

225. At first appointment with an obstetrician-gynaecologist a pregnant woman is referred to other medical specialists. She must be obligatory examined by the following specialists:

- a. Therapeutist and endocrinologist
- b. ENT and ophthalmologist
- c. Dentist and cardiologist
- d. Therapeutist and dentist
- e. Dentist and phthisiatrician

226. Estimation of community health level involved analysis of a report on diseases registered among the population of district under charge (reporting form 12). What index is calculated on the grounds of this report?

- a. Index of hospitalized morbidity
- b. Index of basic non-epidemic morbidity
- c. Index of pathological affection
- d. Index of morbidity with temporary disability
- e. Common morbidity rate

227. A 50-year-old male suburbanite underwent treatment in rural outpatient clinic for pneumonia. The treatment didn't have effect and the disease got complicated by exudative pleuritis. What prevention and treatment facility should the patient be referred to for further aid?

- a. Tuberculosis dispensary
- b. Central district hospital
- c. Phthisio-pulmonological dispensary
- d. Regional hospital
- e. Municipal hospital

228. A 46-year-old patient was issued a 10-day sick list because of exacerbation of chronic cholecystitis. The patient's general condition got better, but the clinical manifestations of the disease are still present. What authority is entitled to extend the sick list?

- a. Family doctor
- b. Deputy head doctor for medical-labour expertise
- c. Head doctor
- d. Medical Expert Commission
- e. Deputy head doctor for therapeutic management

229. A municipal hospital reported on the number of operated patients including fatal outcomes following the operations. Which index of hospital work can be calculated on the ground of this data?

- a. Total lethality
- b. Standardized lethality
- c. -
- d. Postoperative lethality

e. Index of late hospitalization since a disease incursion

230. What methods of collecting the information is preferable for study of housing conditions of students of medical HIGH SCHOOL for a training period?

a. Statistical

**b. Questioning**

c. Selecting of materials

d. Interviewing

e. A method of the directed selection

231. Choose a method of a graphic representation of monthly information about number of the registered cases of acute intestinal infection and their comparisons to the average monthly values, obtained for 5 previous years:

a. The sector diagram

b. The radial diagram

**c. The linear diagram**

d. The figured diagram

e. The curvilinear diagram

232. The parameter of infantile mortality for the last year was - 16,3, in present year - 15,7. Name a kind of the diagram that can be used for a graphic representation of it:

a. Sector

b. Radial

c. Linear

d. Intrastylar

**e. Stylar**

233. Define the basic registration document at the profound study of a case rate with temporary lost labor ability at the industrial enterprise:

a. The inpatient medical record

**b. A card of the personal account of a case rate**

c. The sick-leave certificate

d. The Report on reasons of a temporary lost labor ability

e. A ambulatory medical card

234. Head of a department and a trade-union group have appealed to the head of a hospital about dismissal of the senior nurse who has 17 year record of service. The facts of charge were confirmed and recognized by the nurse herself. This nurse lives with a daughter (who is divorced and unemployed) and a 9-month-old grandson. Make an administrative decision:

a. To discharge the worker, i.e. to satisfy demands of the collective

b. To shift the solution of this problem on other officials or public organizations

c. -

**d. To continue the worker in office with a warning of dismissal in case of repeated violation of labor discipline**

e. To issue the sick list

235. A child is 6 years old. Within one year of observation he had URI that lasted 8 days. Physical state is satisfactory. Specify his health group:

a. III (b)

b. III (c)

c. II

d. III (a)

**e. I**

236. A 38 year old man was admitted to a hospital from his working place on July 19 because of hip fracture. He was invalid till November 19. Requires prolongation of treatment. Who decides on the issue of further temporary invalidity?

a. Regional MSEC

b. Specialized (traumatologic) MSEC

c. The head physician of a polyclinic

d. DCC

e. Interregional general MSEC

237. What is the maximum duration of medical certificate in case of tuberculosis?

a. 2 months

b. 2 weeks

c. 10 months

d. Month

e. Week

238. An engineer-chemist at the age of 47 often falls ill with an occupational skin disease. Who makes a decision to transfer him to other job accepts?

a. The attending physician

b. A head physician

c. DCC

d. The chief of shop

e. MSEC

239. A patient with high temperature came to a first-aid post in the evening. The fact of temporary disability was established. Indicate the order of examination in this case:

a. The sick list for up to 3 days should be issued

b. The sick list for 1 day should be issued

c. The night duty doctor should issue a medical certificate, which will be subsequently used for issuing a sick list from the date of the previous day

d. The sick list for 3 days should be issued

e. Any document shouldnt be issued

240. A sample of milk was taken for testing from a 5 ton milk batch. Lab analysis showed the following: fat content 2%, specific density- 1,04 g/cm<sup>3</sup>, acidity 210C, reductase probe - weak positive. What way the product is to be used in? What would you advise?

a. Sell but inform customers about milk quality

b. Utilize technically

c. Annihilate the product

d. Sell without limitations

e. Write the product off for animal feeding

241. The student has the following devices: Geiger counter, Ebert counter, Krotovs apparatus, Mischuk device, Ebert device. What device can he use to assess air germ pollution?

a. Geigers counter

b. Eborts counter

c. Krotovs apparatus

d. Mischuks device

e. Eborts device

242. Thyreotoxicosis patient is in the two-place hospital ward of therapeutic department. The area of the ward is 18 m<sup>2</sup>, height is 3 m, ventilation rate is 2,5/h. Air temperature is 20°C, relative humidity is 45%, air movement velocity is 0,3 m/sec, light coefficient is 1/5, noise level constitutes 30 dB. Make a hygienic assessment of these conditions

a. Non-effective ventilation

b. High level of noise

c. All conditions are OK

d. Discomfortable microclimate

e. Poor lighting

243. A 9 y.o. girl has an average height and harmonic growth development. She was ill with acute respiratory infection for five times. Define the group of her health

- a. 1st group
- b. 4th group
- c. 5th group
- d. 2nd group**
- e. 3rd group

244. A student lives in the modern house in the flat with a complete set of sanitary equipment (WC, bath, shower, local water heater). How much water consumption has he got?

- a. 300-400 L/day
- b. 500 -600 L/day
- c. 10-15 L/day
- d. 50-100 L/day
- e. 160-200 L/day**

245. A young patient who came to a polyclinic was diagnosed with the 1 stage of hypertension. How often should he undergo the medical check-up?

- a. Twice a year**
- b. 3 times a year
- c. 5 times a year
- d. 4 times a year
- e. Once a year

246. 25 children at the age of 2-3 years who dont attend any child welfare institutions should be observed by a district pediatrician within the current year. How many initial visits of this group of children should be planned?

- a. 40
- b. 20
- c. 50**
- d. 100
- e. 200

247. Studying of pulmonary tuberculosis incidence provided data about patients socioeconomic living conditions and bad habits. What method allows to estimate the impact of these factors on tuberculosis incidence?

- a. Calculation of correspondence index
- b. Standardized index calculation
- c. Calculation of reliability coefficient
- d. Calculation of correlation coefficient**
- e. Calculation of regression coefficient

248. A teacher of a secondary school was diagnosed with pulmonary tuberculosis. What is the maximum duration of his medical certificate?

- a. Five months
- b. Two months
- c. A month
- d. Ten months**
- e. Four months

249. Basing upon the data of laboratory assessment of sanitary state of soil in a certain territory, the soil was found to be low-contaminated according to the sanitary indicative value; contaminated according to the coli titer; low-contaminated according to the anaerobe titer (Cl. Perfringens). This is indicative of:

- a. Constant entry of organic protein contaminations
- b. Insufficient insolation and aeration of soil
- c. Insufficient intensity of soil humification
- d. Old fecal contamination
- e. Fresh fecal contamination**

250. A maternity hospital registered 616 live births, 1 stillbirth, 1 death on the 5th day of life over a 1 year period. What index allows the most precise estimation of this situation?

- a. Perinatal mortality
- b. Natality
- c. Natural increase
- d. Neonatal mortality
- e. Crude mortality rate

251. A patient complained about problems with pain and tactile sensitivity, pain in the nail bones at the end of the working day. He works at a plant with mechanical devices. What pathology can be suspected?

- a. Hypovitaminosis of D1
- b. **Vibration disease**
- c. Noise disease
- d. Caisson disease
- e. Overwork symptoms

252. Bacterial analysis of air in a living space in winter period by means of Krotovs apparatus revealed that total number of microorganisms in 1m<sup>3</sup> of air was 7200. What is the permissible number of microorganisms for the air to be characterized as "pure"?

- a. Up to 7500
- b. **Up to 4500**
- c. Up to 3500
- d. Up to 2500
- e. Up to 5500

253. Maximum permissible concentration of carbon dioxide in the air is considered to be a sanitary index of air purity in a classroom. What concentration of carbon dioxide in the air is accepted as maximum permissible?

- a. 0,2%
- b. 0,3%
- c. 0,05%
- d. 0,15%
- e. **0,1%**

254. A patient who has been consuming refined foodstuffs for a long time complains about headache, fatigability, depression, insomnia, irritability. Objectively: muscle asthenia, pain and cramps in the gastrocnemius muscles, during walking the patient lands onto his heel first, then on the external edge of foot. Cardiovascular system exhibits tachycardia, hypoxia, dystrophic changes of myocardium.

There are also gastrointestinal disorders. What is the most likely diagnosis?

- a. Hypovitaminosis B12
- b. Hypovitaminosis B2
- c. **Hypovitaminosis B1**
- d. Hypovitaminosis B6
- e. Hypovitaminosis B15

255. Periodical survey of a worker of a chemicals plant revealed a malignant neoplasm on the urinary bladder. This occupational disease was the most probably caused by contact with the following industrial poison:

- a. Asbestos
- b. Arsenic
- c. Vinyl chloride
- d. Nickel carbonyl
- e. **Benzidine**

256. A 37 year old patient applied to a local therapist. As a result of exacerbation of chronic obstructive bronchitis the patient had been temporarily disabled for 117 days within 1 year. What tactics will be legally correct?

- a. The patient should be referred to the medicosocial expertise  
b. The patient should be referred to the medical consultation comission for extension of medical certificate  
c. The patient should be referred to the sanatorium-and-spa treatment  
d. The therapist should issue a new medical certificate  
e. The therapist should extend a medical certificate
257. A 46-year-old patient once took part in elimination of breakdown at an atomic power plant. Currently he is being treated at an in-patient hospital. He was diagnosed with progressing vegetative insufficiency. This disease relates to the following group of ionizing radiation effects:  
a. Genetic  
b. Somatic  
**c. Somato-stochastic**  
d. Hormesis  
e. Heterosis
258. A district doctor was commissioned with a task to work out a plan of treatment-and-prophylaxis actions for the population of his district. What actions of secendary prophylaxis must he include into this plan?  
a. Improvement of populations living conditions  
b. Rehabilitation actions  
c. Disease prevention  
d. Elimination of disease causes  
**e. Prevention of disease complications**
259. Chief district pediatrician has to carry out analysis of infant mortality rate. What should he take as a unit of the observation?  
**a. Child death case at the age up to 1 year**  
b. Child death case after 28 days of life  
c. Child death case on labor  
d. Child death case during first 7 days of life  
e. Child death case at the age up to the first month
260. Deputy of chief medical officer carried out a study of morbidity rate for population which had been served at the polyclinics within the last 5 years. What statistical values can help in calculation of morbidity rates?  
a. Dynamic series  
**b. Relative values**  
c. Average values  
d. Standard values  
e. Absolute values
261. There were registered 500 cases of urolithiasis per 10000 inhabitants. What kind of statictical indices is presented?  
a. Incidence rate  
b. Index of compliance  
c. Correlation coefficient  
d. Index of visualization  
**e. Prevalence rate**
262. At year-end hospital administration has obtained the following data: annual number of treated patients and average annual number of beds used for patients treatment. What index of hospital work can be calculated on the base of this data?  
a. Average annual bed occupancy  
b. Bed resources of the hospital  
**c. Bed turnover**  
d. Average duration of patients presence in the hospital  
e. Average bed idle time

263. Examination of a 13-year-old boy reveals that his body length is 147 cm (+2), body weight - 38 kg (+1,5), circumference of chest - 72 cm (+0,2). Estimate the harmonicity of the child's physical development:

- a. Disharmonious
- b. Above the average
- c. Supernormal
- d. Sharply disharmonious
- e. Harmonious

264. On physiologic-sanitary examination of railway department work it was revealed that loaders work is of III degree of difficulty. They unload wagons with sand, manually break coagulated mass by shovel and shift it. What criteria was used to evaluate work of loaders?

- a. Value of static loading for the shift
- b. Time of passive observation, % to the shift duration
- c. Intellectual efforts
- d. Maximum load weight which is shifted**
- e. Time of active activities, % to the shift duration

265. Workers of fishery are subjected to low temperatures of the air (from 5 till 15°C). Diseases of what organs and systems are the most frequent among workers of such enterprises?

- a. Liver
- b. Gastrointestinal tract
- c. Cardiovascular system
- d. Blood
- e. Respiratory system**

266. During the periodic medical examination an assembly fitter (works on soldering details) didn't report any health problems. Closer examination revealed signs of asthenic-vegetative syndrome. Blood included red blood cells with basophilic aggregations and a somewhat higher number of reticulocytes, urine had a high concentration of delta-aminolevulinic acid. The complex of symptoms indicates the initial stage of chronic intoxication with:

- a. Mercury
- b. Manganese
- c. Lead**
- d. Tin
- e. Ethanol

267. An outpatient hospital made record of 11600 diseases within one year. Among them influenza and ARD make up 5800, circulatory system diseases - 3480, digestion diseases - 1300, other diseases - 1020. What relative index can be calculated according this data?

- a. Visualization
- b. Intensive
- c. Extensive**
- d. Correlation
- e. -

268. A pupil of the 8th form after trauma has acute atrophy of the left arm muscles, tonus of which is distinctly decreased, active movements are only in the left joint, pupil's foot is deformed. Function of support of the left leg is absent, support function of the right leg is preserved. The boy wears an orthopedic footwear. What group of physical training does the boy belong to?

- a. Other
- b. Preparatory
- c. Basic
- d. Additional
- e. Special**

269. District physician was charged with plan drafting concerning medical and preventive measures among the population in the area he is assigned to. What measures must he include in this plan as

regards primary prevention of illness?

- a. Measures to improve patients life conditions
- b. Prevention of disease complications
- c. Referral of patients to sanatorium
- d. Measures to increase patients life quality

**e. Prevention of disease onset**

270. A therapist needs to analyze adult health in the area of service. Which groups of indicators will be included into this analysis?

- a. Sickness rates, disability, death rates
- b. Demographic, sickness rates, physical development
- c. Demographic, sickness rates, disability**
- d. Birth rates, sickness rates, disability
- e. Sickness rates, death rates, physical development

271. A district pediatrician has carried out infant mortality rate analysis in his area. What data has been used?

- a. Mortality of district adolescents
- b. Mortality of district newborn
- c. Mortality of children under 1 y.o., natimortality
- d. Hospital mortality of children, structured by age

**e. Mortality of children under 1 y.o. structured by age, sex, causes**

272. At the radiological unit of a hospital gamma-devices of radiotherapy of "Agat" type and other closed sources of ionizing radiation are used for treatment of malignant neoplasms. What measures are to be taken to protect personnel during working with radioactive sources of such type?

- a. Screening of the source and the use of means of individual protection of respiration organs
- b. Capsulation of devices and organization of room ventilation
- c. Reduction of working time and screening of the source**
- d. The increase of distance to the source and individual hygiene compliance
- e. Systematical cleansing of surfaces from the radioactive contamination and shortening of working time

273. A patient undergoes inpatient treatment with the diagnosis of acute pancreatitis. To spare pancreas as much as possible the doctor prescribed for him starvation for 1-3 days. What products is the patient allowed to eat during recovery period after cancelling of starvation?

- a. Milk
- b. Grape juice
- c. Broth
- d. Boiled meat

**e. Potato and carrot mash**

274. A local doctor has to prepare a report about the health condition of the population of his region. What medical indexes of population health condition should he use?

- a. Social welfare, satisfaction of life quality
- b. Average treatment duration, complications
- c. Average longevity
- d. Morbidity, disabilities, demographic, physical development**
- e. Way of life, genetic, pollution

275. To study physical development of children and adolescents, anthropometric studies are widely used. Choose a physiometric method of study from the below given

- a. Determination of body weight
- b. Determination of vital capacity of lungs**
- c. Determination of thorax form
- d. Measurement of growth
- e. Determination of vertebra form

276. Study of morbidity with temporary disability among workers of a machine building plant revealed that average duration of a case was 20 days. What diseases influenced upon the index value?

- a. Subacute
- b. Acute
- c. Chronic**
- d. Preexisting diseases
- e. Hard to determine

277. A patient is on the sick leave for 4 months continuously from the date of injury. The treatment is going to last for 1-2 months more. Who has the right to extend the duration of medical certificate for this patient?

- a. District doctor by agreement with a department chief
- b. Medico-social expert commission
- c. Medical superintendent
- d. Medical advisory commission after inpatient treatment

**e. Medical advisory commission after medico-social expert commission examination**

278. Working conditions of a building company worker are characterized by cooling microclimate effect, silica-containing dust, caustic alkali (quicklime) and noise. What medical expert should be the chief of the commission that periodically examines the workers of the mentioned category?

- a. Dermatologist
- b. Otolaryngologist
- c. Ophthalmologist
- d. Neurologist

**e. Therapeutist**

279. It is determined that 30 of a 100 women with risk factor had preterm labor, and of a 100 women without risk factor 5 women had preterm labor. What method of statistic data processing should the doctor use in order to estimate reliability of differences between the compared groups?

- a. Students criterion calculation**
- b. Relative numbers calculation
- c. Correlation analysis
- d. Standardization method
- e. Average computing

280. 350 workers of a metallurgical plant had to undergo a yearly preventive examination. A territorial polyclinic carried out preventive examination of 325 workers. As a result of it, 1 worker was recognized as temporarily disabled, 15 workers underwent further rehabilitation at an after-work sanatorium, 10 workers were provided with diet meal. What index characterizing the preventive work of the polyclinic should be applied in this case?

- a. Percentage of temporarily disabled people
- b. Coverage of preventive medical examinations**
- c. Percentage of people who underwent rehabilitation at an after-work sanatorium
- d. Frequency of case detection during examinations
- e. Percentage of people who were provided with diet meal

281. During coal extraction in a mine the concentration of coal dust in the working area is 450 mg/m<sup>3</sup> (MPC is 10 mg/m<sup>3</sup>). What occupational respiratory disease may develop in miners?

- a. Anthracosis**
- b. Byssinosis
- c. Talcosis
- d. Siderosis
- e. Allergic nasopharyngitis

282. During a regular medical examination at a metallurgical plant 20% of workers were found overweight (body weight was 5-14% higher than normal), and had early signs of obesity (grade I-II) with Quetelet index from 26 to 30. What products share must be reduced in the diet of this group of people in the first place in order to normalize their body weight?

a. Bakery products

b. Fruit

c. Meat and fish products

d. Milk and dairy products

e. Vegetables

283. Chief physician of a polyclinic encharged a district doctor with a task to determine the pathological prevalence of disease N in his district. What document allows to estimate the disease prevalence in the population of a medical district?

a. Vouchers for medical appointments

**b. Prophylactic examinations register**

c. Statistic coupons (-)

d. Statistic coupons (+)

e. Statistic coupons (+) and (-)

284. In a forest summer camp children have variable procedures to harden their organisms. What procedure has the most hardening power?

a. Walking on the fresh air

b. Bath with hydromassage

c. Morning exercises on the fresh air

d. Hygienic shower

**e. Contrast shower**

285. There is a dynamic growth of number of congenital abnormalities such as central paralysis, newborns blindness, idiocy among the population that lives near to pesticides production enterprise. Compounds of which pollutant can cause the development of this pathology?

a. Strontium

b. Iron

c. Chrome

**d. Mercury**

e. Cadmium

286. Ats planned to construct multifield a new hospital in one of the cental city districts. What building type is the most appropriate in this case?

a. Decentralized

b. Centralized

**c. Centralized and blocked**

d. Mixed

e. Blocked

287. On medical observation a doctor identified girl (162 cm tall and 59 kg weight) who complained loss of ability to see surrounding objects clearly in the evening. On examination: dry skin, hyperkeratosis. Her daily ration includes the following vitamines: vitamine A- 0,5 mg, vit.B\_1- 2,0 mg, vit.B\_2- 2,5 mg, vit.B\_6- 2 mg, vit.C- 70 mg. What is the hypovitaminosis type?

a. D1-hypovitaminosis

b. D6-hypovitaminosis

c. C-hypovitaminosis

**d. A-hypovitaminosis**

e. D2-hypovitaminosis

288. The major repair of a hospital included renewal of colour design of hospital premises because it is of great psychological and aesthetical importance; and so the walls of patient wards will be painted under consideration of:

a. Diseases of patients who will be staying in these wards

b. Hospital profile

**c. Windows orientation**

d. Wall reflection coefficient

e. Creation of cozy atmosphere

289. Atmospheric air of an industrial centre is polluted with the following wastes of metallurgical plants: sulphuric, nitric, metal, carbon oxides that have negative influence upon the inhabitants health. The effect of these hazards can be characterized as:

- a. Complex
- b. Adjacent
- c. Mixed
- d. Combined**
- e. Associated

290. A driver had been fixing a car in a closed garage and afterwards complained about headache, dizziness, nausea, muscle asthenia, sleepiness. Objectively: pulse and respiratory rate elevation, excitement, hypertension, delirium of persecution. What is the most likely diagnosis?

- a. Intoxication with ethyl gasoline
- b. Hypertensive crisis
- c. Asthenovegetative syndrome
- d. Intoxication with carbon oxide**
- e. Posttraumatic encephalopathy

291. A worker who undergoes regular medical check-up for duodenal ulcer received a subsidized 24-day sanatorium voucher from his plant. The term of annual leave of a worker is 24 calendar days, it will take 4 days more to get to the sanatorium and back home. What is the procedure of obtaining a 4-day sick-leave?

- a. Medical Expert Commission issues a 28-day sick list
- b. The doctor in charge issues a health certificate and sanatorium patients file for 28 days
- c. Medical Expert Commission issues a 4-day health certificate
- d. Medical Expert Commission issues a 4-day sick list**
- e. The doctor in charge issues a 4-day sick list

292. Administration of a plant producing red lead paint intends to form a group of medical specialists for periodical medical examinations. What specialist must be obligatory included into this group?

- a. Otolaryngologist
- b. Neuropathologist**
- c. Psychiatrist
- d. Gynaecologist
- e. Dermatologist

293. The total area of a ward at the therapeutical department is 28 m<sup>2</sup>. What is the maximum number of beds that can be exploited in this ward?

- a. 5
- b. 4**
- c. 2
- d. 1
- e. 3

294. The amount of ultraviolet radiation dose was measured in minutes. What device was applied for measurement of the biodose?

- a. UV-meter
- b. Radiometer
- c. Catathermometer
- d. Gorbachevs biodosimeter**
- e. Actinometer

295. The institutions which take part in medical examinations can be prevention and treatment facilities, medical board of Ministry of Defense, medical board of Ministry of Home Affairs, medico-social expert commissions, forensic medical boards etc. What institutions are responsible for temporary disability examination?

- a. Medico-social expert commissions
- b. Sanitary-and-prophylactic institutions**

**c. Prevention and treatment facilities**

- d. Medical boards of Ministry of Defense
- e. Medical boards of Ministry of Home Affairs

296. It is planned to make complete isolation boxes in the infectious department in order to prevent nosocomial airborne infections. The boxes consist of a tambour, a ward and a lock chamber. What structure should be also included in a complete isolation box?

- a. Patients examination room
- b. Nursing room
- c. Manipulation room
- d. Doctors consulting room

**e. Bathroom unit**

297. Educational rooms are illuminated with various lighting fittings. What type of lighting fittings is the most appropriate in respect of hygienic norms?

- a. Ambient light fittings
- b. Combined light fittings
- c. Direct light fittings
- d. Semi-reflected light fittings

**e. Indirect light fittings**

298. In terms of megacalorie ( $1000 \text{ kcal} = 4184 \text{ kJ}$ ) the ration of an adult includes 30 g of proteins, 37 g of fats, 137 g of carbohydrates, 15 mg of vitamin C, 0,6 mg of thiamine (vitamin D1). The ration is ~~textbf{UNBALANCED}~~ as to the contents of:

- a. Carbohydrates
- b. Thiamine
- c. Proteins
- d. Fats

**e. Vitamin C**

299. A city somatic hospital with 300 beds consists of the main building which houses the therapeutic and surgical departments. Several separate buildings house the maternity, pediatric and radiologic departments that are connected to the main building by underground walkways and above-ground covered skybridges. Specify the building system of the hospital:

- a. Decentralized
- b. Centralized
- c. Central-unit**

- d. Free
- e. Combined

300. Indices that characterize population health include demographic indices. What environment is used for calculation of these indices?

- a. Employment number
- b. Number of patients
- c. Number of population being liable to preventive examination
- d. Population number**

- e. Number of hospitalized people

301. While making sanitary examination of burn unit for adults it was stated that wards for 4 persons are of  $28 \text{ m}^2$  square. What should be the minimum ward area in this unit?

- a.  $52 \text{ m}^2$
- b.  $40 \text{ m}^2$**
- c.  $28 \text{ m}^2$
- d.  $24 \text{ m}^2$
- e.  $30 \text{ m}^2$

302. The results of 5 year monitoring allowed to estimate the level of environmental influence upon health indices of popultaion. What statistic method should be chosen?

**a. Calculation of correlation coefficient**

- b. Calculation of coefficient of difference validity
- c. Calculation of dynamic indices
- d. Calculation of regression coefficient
- e. Calculation of conformity coefficient

303. In order to improve organism tolerance of boarding-school pupils a doctor developed a program. The program is based upon the following principles: graduality, consistency, individuality, cocomplexity. What of the main principles of organism tempering wasnt taken into account?

- a. Increase of resistance

**b. Systematicness**

- c. Increase of influence force
- d. Autodefense increase
- e. Increase of influence intensity

304. A student analyzes noise level of cold-pressing process. What device should be applied for this hygienic study?

- a. Noise analyzer
- b. Actinometer
- c. Pyranometer
- d. Noise and vibration analyzer**
- e. Sound tester

305. Environmental pollution is prevented by mechanical separation of nontoxic solid domestic waste. Specify the method which can be used for mechanical utilization of these wastes:

- a. Compressing of wastes into building blocks**
- b. Burning as power-plant fuel
- c. Waste neutralization in biothermal boxes
- d. Burial of wastes
- e. Hydrolysis

306. An emergency situation at a chemical plant caused acute occupational intoxication. A doctor who revealed the case of "acute occupational disease (intoxication)" must notify the following authority:

- a. Ministry of Health of Ukraine
- b. Sanitary and epidemiological station**
- c. Trade union committee of the plant
- d. Plant administration
- e. Medical unit of the plant

307. At a machine-building plant the casts are cleaned by means of abrasion machines that are a source of local vibration. What are the most efficient preventive measures for preventing harmful effect of vibration on workers organisms?

- a. Preliminary and periodical medical examinations
- b. Warm hand baths
- c. Giving sanitary instructions to the workers
- d. Use of gloves that reduce vibration**
- e. Hand massaging

308. The Carpathian region is characterized by constant high humidity of atmospheric air (over 80%). Inhabitants of this region feel severe cold in corresponding season at a medium low temperature. Its caused by heat emission by:

- a. -
- b. Convection**
- c. Vaporization
- d. Radiation
- e. Conduction

309. Poorly refined wastes of an industrial plant are usually thrown into the river that supplies drinking water. It causes perishing of some microorganisms, disturbs processes of water self-purification and worsens its quality that can have negative influence upon peoples health. How is this effect of environmental factors called?

- a. Complex
- b. Combined
- c. Direct
- d. Associated
- e. Indirect

310. In order to reduce weed growth on agricultural land, some herbicides have been used for a long time. In terms of environmental stability these herbicides are rated as stable. Specify the most likely route of their entry into the human body:

- a. Soil-plants-humans
- b. Soil-animals-humans
- c. Soil-insects-humans
- d. Soil-protozoa-humans
- e. Soil-microorganisms-humans

311. In a city with population 400000 people 5600 fatal cases were recorded, including 3300 cases because of blood circulation diseases, 730 - because of tumors. What index will allow to characterize mortality from blood circulation diseases in this city?

- a. Intensive index
- b. Relative intensity index
- c. Correlation index
- d. Visuality index
- e. Extensive index

312. A selective population research study was aimed at exploring the effect of air emissions from a metallurgical plant on the obstructive bronchitis morbidity in a city. The calculated correlation coefficient was +0,79. Evaluate the strength and direction of the relationship:

- a. Direct, average
- b. Inverse, strong
- c. Direct, strong
- d. Inverse, average
- e. -

313. Statistic of patients of common medical practice displays constant increase in elderly and old people number. What kind of pathology is expected to prevail in the morbidity structure of population in question?

- a. Non-epidemic pathology
- b. Occupational pathology
- c. Chronic pathology
- d. Acute pathology
- e. Infectious pathology

314. In the current year general practitioners of the municipal polyclinic have referred 11 patients with coronary artery disease to the in-patient hospital. In 3 cases the diagnosis wasnt confirmed. What managerial decision shoud be made in such case?

- a. Analysis of medical check-up quality
- b. Analysis of doctors skill level
- c. Analysis of material and technical basisof the polyclinic
- d. Analysis of each case of diagnostic divergence
- e. Analysis of diagnostic examination quality

315. Hygienic expertise of a sample taken from the batch of grain revealed that 2% of grains were infected with microscopic Fusarium fungi. On the ground of laboratory analyses this batch of grain should be:

- a. Destroyed
- b. Sold without restrictions**
- c. Used for forage production
- d. Tested for toxicity
- e. Used for ethanol production

316. Among the inhabitants of a workmens settlement located near an industrial plant the cases of nervous and endocrine system diseases as well as renal diseases became more frequent. Blood analyses revealed a decrease in sulphydryl groups. These pathologies might have been caused by the following substance released into the environment:

- a. Mercury**
- b. Boron
- c. Lead
- d. Chromium
- e. Cadmium

317. Examination of a 43-year-old man objectively revealed pallor of skin and mucous membranes, loss of tongue papillae, transverse striation of fingernails, cracks in the mouth corners, tachycardia. Blood test results: Hb- 90 g/l, anisocytosis, poikilocytosis. The most likely causative agent of this state is inadequate intake of:

- a. Zinc
- b. Copper
- c. Iron**
- d. Magnesium
- e. Selene

318. During the medical examination at school the schoolchildren had to undergo plantography. After the analysis of footprints platypodia was found in 30% of pupils. What is the percentage of the flatfoot isthmus?

- a. 45%
- b. 65%**
- c. 50%
- d. 30%
- e. 55%

319. A factorys sectorial doctor selects a group of persons who often fall ill for thorough monitoring. At the same time he takes into consideration the number of etiologically related cases with temporary disability in each of the employees over the last year. An employee falls into this group if the number of sickness cases is:

- a. 1 or more
- b. 3 or more
- c. 6 or more
- d. 4 or more**
- e. 2 or more

320. Production areas of a greenhouse complex have the following microclimate parameters: air temperature - 42°C, humidity - 98%, air velocity - 0,05 mps, temperature of enclosing surfaces - 15°C. Characterize the microclimate of production areas:

- a. Overheated**
- b. Cooling
- c. Satisfactory
- d. Uncomfortable
- e. Comfortable

321. Sanitary-veterinary examination of a cow carcass revealed measles contamination (2-3 measles per 10 cm<sup>2</sup>). What tactics should be chosen in respect of this meat consumption?

- a. Meat should be disinfected by freezing
- b. The whole carcass should be technically disposed**

- c. The carcass should be used for the production of canned meat
- d. Meat can be sold without any restrictions
- e. Meat should be disinfected by boiling

322. A factory worker has ARD complicated by acute bronchitis. He receives treatment in the outpatient setting. The attending doctor has issued him a medical certificate for 5 days and then extended its duration by 5 more days. Patient cant get down to work because of his health status. Who should extend the duration of medical certificate for this patient?

- a. A department chief
- b. Deputy medical superintendent in charge of temporary disability examination
- c. Medical advisory commission
- d. Deputy medical superintendent in charge of medical treatment
- e. Medical superintendent

323. A plot of land with total area of 2,0 hectare was intended for building of a hospital. The maximal capacity of the hospital will be:

- a. 100 beds
- b. 400 beds
- c. Over 1000 beds
- d. 800 beds
- e. 200 beds

324. During hygienic examination of a hospital it was established that the area for each bed in a double ward was: in the infectious department for children - 7 m<sup>2</sup>, in the infectious department for adults - 8 m<sup>2</sup>, in the burns department - 9 m<sup>2</sup>, in the radiological department - 10 m<sup>2</sup>, in the critical care department - 13 m<sup>2</sup>. In which wards the area for each bed doesnt correspond with hygienic requirements?

- a. In radiological wards
- b. In critical care wards
- c. In infectious wards for children
- d. In infectious wards for adults
- e. In burns wards

325. According to the report of water quality control, drinking city water has the following characteristics: turbidity - 1,5 mg/m<sup>3</sup>, odour - 3 points, metallic taste - 2 points, pale yellow colour, colour index - 20o, temperature - 12o. Which of these factors doesnt comply with hygienic requirements?

- a. Colour index
- b. Turbidity
- c. Odour
- d. Temperature
- e. Taste

326. The objective of a statistical study was to find out the extent of seeking medical care by the population. For this purpose 300 residents of the area were interviewed. Information was collected by means of a special questionnaire. What method of collecting information was used by researchers?

- a. -
- b. Anamnestic
- c. Immediate examination
- d. Immediate registration
- e. Doing extracts

327. Analysis of organization of medical care in a regional centre has shown that every year about 12% of patients receive inpatient care for diseases that dont require round-the-clock monitoring and intensive care. What are the most appropriate organizational changes required to address this problem?

- a. Development of primary care
- b. Changes to the statute of outpatient clinics

c. Development of medical care forms replacing the in-patient care

d. Restructuring of specialized care

e. Upgrading of hospital facilities

328. A city's population is 400000 inhabitants in 2005 there were registered 5600 deaths, including 3300 cases caused by cardiovascular diseases, 730 - by tumours. Which of the following indicators allows to characterize the share of the circulatory system diseases as the cause of death in the city?

a. Extensive index

b. Index of relative intensity

c. Ratio

d. Demonstrativeness index

e. Intensive index

329. It is planned to organize a rural outpatient clinic. The patients will be able to visit the doctors of the following specialities:

a. Obstetrician-gynaecologist, therapist

**b. Therapeutist, dentist, pediatrician, obstetrician-gynecologist**

c. Pediatrician, obstetrician-gynaecologist, ophthalmologist

d. Therapeutist, pediatrician, neurologist

e. Pediatrician, therapist, ophthalmologist

330. In a rural health district a child died in the first month of life. In order to analyze this situation it was necessary to complete expert evaluation of medical records. Which medical document was analyzed in the first place?

**a. Child developmental history record**

b. Record of vaccinations

c. Child's medical record

d. Medical record of an outpatient

e. Neonatal record

331. The head of prenatal care department intends to complete expert evaluation of compliance with medical and technological standards of pregnancy follow-up. What documents must be verified for this purpose?

a. Medical records of outpatients

b. Prenatal records

**c. Individual records of pregnant and postpartum women**

d. Labour and delivery record

e. Neonatal record

332. While assessing the health status of graduates of a secondary school, the doctor found one of them to have grade 3 tonsillar hypertrophy, chronic rhinitis and vegetative-vascular dystonia. The organism functionality is reduced. This student belongs to the following health group:

a. IV

b. V

c. II

d. I

**e. III**

333. At first appointment with an obstetrician-gynaecologist a pregnant woman is referred to other medical specialists. She must be obligatory examined by the following specialists:

a. ENT and ophthalmologist

b. Dentist and cardiologist

c. Therapeutist and endocrinologist

d. Dentist and phthisiatrician

**e. Therapeutist and dentist**

334. Estimation of physical development of a child involved dynamometry and estimation of body weight and length, annual gain in body length, chest circumference, number of permanent teeth,

secondary sexual characters, lung vital capacity. Which of the mentioned indices relates to the physiometric ones?

- a. Annual gain in body length
- b. Lung vital capacity, dynamometry**

- c. Secondary sexual characters

- d. Body length and weight, chest circumference

- e. Number of permanent teeth

335. Estimation of community health level involved analysis of a report on diseases registered among the population of district under charge (reporting form 12). What index is calculated on the grounds of this report?

- a. Common morbidity rate**

- b. Index of morbidity with temporary disability

- c. Index of basic non-epidemic morbidity

- d. Index of hospitalized morbidity

- e. Index of pathological affection

336. A 50-year-old male suburbanite underwent treatment in rural outpatient clinic for pneumonia.

The treatment didn't have effect and the disease got complicated by exudative pleuritis. What prevention and treatment facility should the patient be referred to for further aid?

- a. Central district hospital**

- b. Phthisio-pulmonological dispensary

- c. Tuberculosis dispensary

- d. Municipal hospital

- e. Regional hospital

337. A 46-year-old patient was issued a 10-day sick list because of exacerbation of chronic cholecystitis. The patient's general condition got better, but the clinical manifestations of the disease are still present. What authority is entitled to extend the sick list?

- a. Deputy head doctor for medical-labour expertise

- b. Head doctor

- c. Family doctor

- d. Deputy head doctor for therapeutic management

- e. Medical Expert Commission**

338. A 59-year-old male patient with essential hypertension of stage II is registered with the dispensary department of a polyclinic. The patient regularly takes ACE inhibitors and calcium antagonists. How often should a therapist examine this patient (except for exacerbation periods)?

- a. Every 6 months

- b. Once a year

- c. Every 9 months

- d. Every 3 months**

- e. Every 4 months

339. It is planned to build a multi-disciplinary hospital with 500 beds in a town. Specify the location of a polyclinic within the medical centre:

- a. In the service zone

- b. At the main entrance**

- c. In the centre of the territory near medical buildings

- d. In the garden and park area

- e. It is not allowed to place the polyclinic within the centre territory

340. A number of viable fetuses per 1000 women at the age between 15 and 44 is determined by:

- a. Obstetric rate

- b. Genital index**

- c. Birth rate

- d. Reproductive level

- e. Perinatal rate

341. Point out the unit for statistical observation for the determination of blood sugar level influence on a wound surface healing during postoperative period.

- a. Blood sugar level
- b. The patient who has a wound surface
- c. The patient who was discharged to outpatient treatment
- d. The patient in a postoperative period**
- e. Blood test

342. Choose a method of a graphic representation of monthly information about number of the registered cases of acute intestinal infection and their comparisons to the average monthly values, obtained for 5 previous years:

- a. The figured diagram
- b. The curvilinear diagram
- c. The radial diagram
- d. The sector diagram
- e. The linear diagram**

343. The parameter of infantile mortality for the last year was - 16,3, in present year - 15,7. Name a kind of the diagram that can be used for a graphic representation of it:

- a. Intrastylar
- b. Linear
- c. Stylar**
- d. Sector
- e. Radial

344. The average body length of newborn boys is 50,9 cm at a sigma 1,66; and average mass - 3432 g at a sigma 5,00. What criterion is necessary in order to compare degree of variability of these signs?

- a. Coefficient of variation**
- b. Limit
- c. Coefficient of association
- d. Amplitude
- e. Sigma

345. Indicate the registration medical document for the patient, who 21.02. was addressed to the doctor with diagnosis ARVD for the first time in this year:

- a. The necessary registration form is not indicated
- b. The statistical coupon is to be filled in and it is necessary to deliver on a sign (+)**
- c. The statistical coupon is to be filled in, but a sign (+) is not necessary to be put in
- d. The statistical coupon for registration of final diagnosis is not necessary
- e. It is necessary to fill in the emergency notice on a case of a contagion

346. Define the basic registration document at the profound study of a case rate with temporary lost labor ability at the industrial enterprise:

- a. "The Report on reasons of a temporary lost labor ability"
- b. A ambulatory medical card
- c. The inpatient medical record
- d. A card of the personal account of a case rate**
- e. The sick-leave certificate

347. Head of a department and a trade-union group have appealed to the head of a hospital about dismissal of the senior nurse who has 17-year record of service. The facts of charge were confirmed and recognized by the nurse herself. The nurse lives with a daughter (who is divorced and unemployed) and a 9-month-old grandson. Make an administrative decision:

- a. To discharge the worker, i.e. to satisfy demands of the collective
- b. To embark other officials or public organizations with this problem
- c. -
- d. To continue the worker in office with a warning of dismissal in case of repeated violation of labor discipline**

e. To issue the sick leave

348. Head of a department and a trade-union group have appealed to the head of a hospital about dismissal of the senior nurse who has 17 year record of service. The facts of charge were confirmed and recognized by the nurse herself. This nurse lives with a daughter (who is divorced and unemployed) and a 9-month-old grandson. Make an administrative decision:

a. To continue the worker in office with a warning of dismissal in case of repeated violation of labor discipline

b. To issue the sick list

c. -

d. To shift the solution of this problem on other officials or public organizations

e. To discharge the worker, i.e. to satisfy demands of the collective

349. A child is 6 years old. Within one year of observation he had URI that lasted 8 days. Physical state is satisfactory. Specify his health group:

a. III (c)

b. I

c. III (a)

d. II

e. III (b)

350. A 5 tons milk batch was sampled. The lab analysis revealed: fat content 2%, specific density - 1,04 g/cm<sup>3</sup>, acidity - 210T, reductase probe - weak-positive. What way is the product to be used in?

a. Sell without limitations

b. Do the product away

c. Discard for animal feeding

d. Technical utilization

e. Sell but inform customers about milk quality

351. The student has the following devices: Geiger counter, Ebert counter, Krotovs apparatus, Mischuk device, Ebert device. What device can he use to assess air germ pollution?

a. Krotovs apparatus

b. Geigers counter

c. Eborts device

d. Mischuks device

e. Eborts counter

352. Thyreotoxicosis patient is in the two-place hospital ward of therapeutic department. The area of the ward is 18 m<sup>2</sup>, height is 3 m, ventilation rate is 2,5/h. Air temperature is 20°C, relative humidity is 45%, air movement velocity is 0,3 m/sec, light coefficient is 1/5, noise level constitutes 30 dB. Make a hygienic assessment of these conditions.

a. All conditions are OK

b. Discomfortable microclimate

c. Poor lighting

d. Non-effective ventilation

e. High level of noise

353. A 9 y.o. girl has an average height and harmonic growth development. She was ill with acute respiratory infection for five times. Define the group of her health.

a. 4th group

b. 5th group

c. 1st group

d. 3rd group

e. 2nd group

354. A student lives in the modern house in the flat with a complete set of sanitary equipment (WC, bath, shower, local water heater). How much water consumption has he got?

a. 500 -600 L/day

**b. 160-200 L/day**

c. 50-100 L/day

d. 10-15 L/day

e. 300-400 L/day

355. A young patient who came to a polyclinic was diagnosed with the 1 stage of hypertension. How often should he undergo the medical check-up?

a. 5 times a year

**b. Twice a year**

c. 3 times a year

d. Once a year

e. 4 times a year

356. 25 children at the age of 2-3 years who don't attend any child welfare institutions should be observed by a district pediatrician within the current year. How many initial visits of this group of children should be planned?

a. 100

b. 200

c. 20

d. 40

**e. 50**

357. Studying of pulmonary tuberculosis incidence provided data about patients socioeconomic living conditions and bad habits. What method allows to estimate the impact of these factors on tuberculosis incidence?

a. Standardized index calculation

b. Calculation of reliability coefficient

c. Calculation of correspondence index

d. Calculation of regression coefficient

**e. Calculation of correlation coefficient**

358. What juice should be included in a complex drug and dietary therapy for patients with gastric ulcer or duodenal ulcer and increased gastric juice acidity in order to accelerate the ulcer healing?

a. Pumpkin

b. Apple, birch and apple

**c. Potato, potato and carrot**

d. Cabbage, cabbage and carrot

e. Celery, parsley

359. Clinic of a research institute for occupational diseases examined a worker who works at a concentration plant and diagnosed him with chronic dust bronchitis. The case is investigated by a commission including the representatives of: the plant, clinic, territorial SES, department of Social Insurance Fund, trade union. According to the "regulation on investigation of...", the commission should be headed by the representative of the following authority:

a. Social Insurance Fund

b. Plant

**c. Territorial SES**

d. Trade union

e. Clinic

360. Basing upon the data of laboratory assessment of sanitary state of soil in a certain territory, the soil was found to be low-contaminated according to the sanitary indicative value; contaminated according to the coli titer; low-contaminated according to the anaerobe titer (Cl. Perfringens). This is indicative of:

**a. Fresh fecal contamination**

b. Old fecal contamination

c. Insufficient insulation and aeration of soil

d. Constant entry of organic protein contaminations

e. Insufficient intensity of soil humification

361. In one of the surgical departments the quality assurance testing of sterilization of surgical instruments was performed. After an instrument had been treated with 1% phenolphthalein, the solution turned pink. This indicates that the instrument has:

a. Synthetic detergent residues

b. Drugs residues

c. Disinfectant residues

d. Residual tissue

e. Residual blood

362. Bacterial analysis of air in a living space in winter period by means of Krotovs apparatus revealed that total number of microorganisms in 1 m<sup>3</sup> of air was 7200. What is the permissible number of microorganisms for the air to be characterized as "pure"?

a. Up to 3500

b. Up to 2500

c. Up to 4500

d. Up to 5500

e. Up to 7500

363. Maximum permissible concentration of carbon dioxide in the air is considered to be a sanitary index of air purity in a classroom. What concentration of carbon dioxide in the air is accepted as maximum permissible?

a. 0,15%

b. 0,05%

c. 0,1%

d. 0,2%

e. 0,3%

364. Study of actual diet of an adult revealed the following: proteins make up 16% of energy value of daily ration, fats - 25%, carbohydrates - 59%. Evaluate compliance of protein, fat and carbohydrate share in the energy value of daily ration with the recommended shares of these nutrients?

a. Nutrient content complies with the recommended shares of energy value

b. Carbohydrate share is insufficient, there is excess of proteins

c. Carbohydrate share is insufficient

d. Fat share is insufficient

e. Carbohydrate share is excessive

365. A patient who has been consuming refined foodstuffs for a long time complains about headache, fatiguability, depression, insomnia, irritability. Objectively: muscle asthenia, pain and cramps in the gastrocnemius muscles, during walking the patient lands onto his heel first, then on the external edge of foot. Cardiovascular system exhibits tachycardia, hypoxia, dystrophic changes of myocardium. There are also gastrointestinal disorders. What is the most likely diagnosis?

a. Hypovitaminosis B1

b. Hypovitaminosis B12

c. Hypovitaminosis B15

d. Hypovitaminosis B6

e. Hypovitaminosis B2

366. A patient who had eaten mushrooms in the morning was delivered to the infectious diseases hospital at night. The disease development was rapid. The patient presented with stomach pain, frequent diarrhea, intractable vomiting, burning thirst, headache and dizziness. He died on the third day. What mushrooms are most likely to have caused mycetismus?

a. Sulfur-tufts

b. Russules

c. Morels

d. Fly agarics

e. Deadly amanita

367. A 37 year old patient applied to a local therapist. As a result of exacerbation of chronic obstructive bronchitis the patient had been temporarily disabled for 117 days within 1 year. What tactics will be legally correct?

- a. The therapist should issue a new medical certificate
- b. The patient should be referred to the sanatorium-and-spa treatment
- c. The therapist should extend a medical certificate
- d. The patient should be referred to the medical consultation commission for extension of medical certificate
- e. The patient should be referred to the medicosocial expertise**

368. The district pediatrician is charged with the analysis of infant mortality. What is taken for the unit of observation in infant mortality investigation?

- a. A baby dead at the age over 28 days
- b. A baby dead at the age up to 1 months
- c. A baby dead at the age up to 12 months**
- d. A baby dead at the age up to 6 days
- e. A baby dead at birth

369. Deputy of chief medical officer carried out a study of morbidity rate for population which had been served at the polyclinics within the last 5 years. What statistical values can help in calculation of morbidity rates?

- a. Average values
- b. Standard values
- c. Relative values**
- d. Absolute values
- e. Dynamic series

370. Examination of a 13-year-old boy reveals that his body length is 147 cm (+2), body weight - 38 kg (+1,5), circumference of chest - 72 cm (+0,2). Estimate the harmonicity of the child's physical development:

- a. Supernormal
- b. Disharmonious**
- c. Above the average
- d. Harmonious
- e. Sharply disharmonious

371. A children's health camp received a party of tinned food. External examination of the tins revealed that they had deep dents, could be easily concaved when pressed and would not immediately return to the initial state; rust was absent; the tins were greased with inedible fat. Specify the bloat type:

- a. Physical**
- b. Biological
- c. Physicochemical
- d. Combined
- e. Chemical

372. Workers of fishery are subjected to low temperatures of the air (from 5 till 15°C). Diseases of what organs and systems are the most frequent among workers of such enterprises?

- a. Blood
- b. Cardiovascular system
- c. Respiratory system**
- d. Liver
- e. Gastrointestinal tract

373. Some of the population of a city district have uneven teeth color. The individuals have white spots, transverse brown stripes on the incisors. Occurrence of these symptoms is associated with the quality of drinking water from a deep well. Which of the following components of water can be the cause of the disease?

a. Fe

b. F

c. Mg

d. Ca

e. J

374. An outpatient hospital made record of 11600 diseases within one year. Among them influenza and ARD make up 5800, circulatory system diseases - 3480, digestion diseases - 1300, other diseases - 1020. What relative index can be calculated according this data?

a. Correlation

b. -

c. Intensive

d. Visualization

**e. Extensive**

375. A therapist needs to analyze adult health in the area of service. Which groups of indicators will be included into this analysis?

a. Birth rates, sickness rates, disability

b. Sickness rates, death rates, physical development

c. Demographic, sickness rates, physical development

d. Sickness rates, disability, death rates

**e. Demographic, sickness rates, disability**

376. A district pediatrician has carried out infant mortality rate analysis in his area. What data has been used?

a. Mortality of district newborn

**b. Mortality of children under 1 y.o. structured by age, sex, causes**

c. Hospital mortality of children, structured by age

d. Mortality of children under 1 y.o., natimortality

e. Mortality of district adolescents

377. At the radiological unit of a hospital gamma-devices of radiotherapy of "Agat" type and other closed sources of ionizing radiation are used for treatment of malignant neoplasms. What measures are to be taken to protect personnel during working with radioactive sources of such type?

a. Systematical cleansing of surfaces from the radioactive contamination and shortening of working time

**b. Reduction of working time and screening of the source**

c. Screening of the source and the use of means of individual protection of respiration organs

d. Capsulation of devices and organization of room ventilation

e. The increase of distance to the source and individual hygiene compliance

378. A local doctor has to prepare a report about the health condition of the population of his region. What medical indexes of population health condition should he use?

a. Average treatment duration, complications

b. Average longevity

c. Social welfare, satisfaction of life quality

d. Way of life, genetic, pollution

**e. Morbidity, disabilities, demographic, physical development**

379. To study physical development of children and adolescents, anthropometric studies are widely used. Choose a physiometric method of study from the below given.

a. Determination of body weight

**b. Determination of vital capacity of lungs**

c. Determination of thorax form

d. Measurement of growth

e. Determination of vertebra form

380. A patient consulted a doctor about acute respiratory viral infection. The patient was

acknowledged to be off work. The doctor issued him a medical certificate for 5 days. The patient is not recovering. What measures should the doctor take in order to legalize the further disability of patient?

- a. To send the patient to the medical social expert commission
- b. To prolong the medical certificate at his own discretion but no more than for 10 days in total**
- c. To prolong the medical certificate together with department superintendent
- d. To prolong the medical certificate at his own discretion but no more than for 6 days in total
- e. To send the patient to the medical consultative commission

381. A patient is on the sick leave for 4 months continuously from the date of injury. The treatment is going to last for 1-2 months more. Who has the right to extend the duration of medical certificate for this patient?

- a. Medical advisory commission after medico-social expert commission examination**
- b. Medical advisory commission after inpatient treatment
- c. Medico-social expert commission
- d. District doctor by agreement with a department chief
- e. Medical superintendent

382. District doctor of rural medical department was called to a 42-year-old patient. While examining the patient, the doctor suspected the dysentery. What document must the doctor issue?

- a. Infectious disease report
- b. Statistical coupon of final (precise) diagnosis
- c. Urgent notification of infectious disease**
- d. Abstract of outpatient medical card
- e. Report addressed to Head of the village

383. During coal extraction in a mine the concentration of coal dust in the working area is 450 mg/m<sup>3</sup> (MPC is 10 mg/m<sup>3</sup>). What occupational respiratory disease may develop in miners?

- a. Byssinosis
- b. Allergic nasopharyngitis
- c. Anthracosis**
- d. Siderosis
- e. Talcosis

384. A district doctor keeps the record of convalescents after infectious diseases, people who are disposed to frequent and long-lasting diseases, patients with chronic pathologies. What category of patients should belong to the III health group?

- a. People disposed to frequent and long-lasting diseases
- b. Convalescents after infectious diseases and patients with chronic pathologies
- c. All above mentioned categories
- d. People with chronic diseases**
- e. People with chronic pathologies and disposed to frequent and long-lasting diseases

385. Chief physician of a polyclinic encharged a district doctor with a task to determine the pathological prevalence of disease N in his district. What document allows to estimate the disease prevalence in the population of a medical district?

- a. Statistic coupons (+)
- b. Statistic coupons (+) and (-)
- c. Vouchers for medical appointments
- d. Prophylactic examinations register**
- e. Statistic coupons (-)

386. A 48-year-old male in-patient undergoes treatment for essential hypertension of II-B stage. It is known from history that he works in a design engineering office. His job involves neuro-emotional stress. Which of these foodstuffs do not stimulate the central nervous system and can be recommended for the patient?

- a. Carbonated beverages
- b. Whole milk**

- c. Mushroom broths
- d. Meat broths
- e. Vegetable broths

387. In a forest summer camp children have variable procedures to harden their organisms. What procedure has the most hardening power?

- a. Morning exercises on the fresh air
- b. Walking on the fresh air
- c. Bath with hydromassage
- d. Contrast shower**
- e. Hygienic shower

388. In an urban settlement situated on the riverbank, an outbreak of hepatitis A was registered. The disease might have water origin. This assumption can be confirmed by growth of the following values of water quality:

- a. Presence of benign leptospirosis pathogen
- b. Index of fecal coliforms
- c. Escherichia coli index
- d. Oxidability
- e. Number of coli-phages**

389. During inspection of sanitary conditions of studying at a technical university it was necessary to evaluate the visual regimen of students, who study from 9 a.m to 3 p.m. What index of natural light will be the most informative?

- a. Presence of mixed (superolateral) light
- b. Natural light coefficient**
- c. Depth of study room
- d. Light coefficient
- e. Time of the room insulation

390. The air of a foundry workers working zone contains condensation aerosol with dust particles sized 2 nm (90%), 2-5 nm (2%), over 5 nm (6%), below 2 nm (about 2%). Characterize the dust dispersivity:

- a. Ultrafine-dispersed
- b. Mist
- c. Median-dispersed
- d. Coarsely dispersed
- e. Fine-dispersed**

391. The major repair of a hospital included renewal of colour design of hospital premises because it is of great psychological and aesthetical importance; and so the walls of patient wards will be painted under consideration of:

- a. Windows orientation**
- b. Diseases of patients who will be staying in these wards
- c. Creation of cozy atmosphere
- d. Wall reflection coefficient
- e. Hospital profile

392. Study of morbidity rate in a city N revealed that population of different administrative districts differed in age structure. What statistic method allows to eliminate influence of this factor upon morbidity indices?

- a. Wilcoxon's t-criterion
- b. Analysis of dynamic series
- c. Calculation of average values
- d. Standardization**
- e. Correlative regressive analysis

393. A driver had been fixing a car in a closed garage and afterwards complained about headache,

dizziness, nausea, muscle asthenia, sleepiness. Objectively: pulse and respiratory rate elevation, excitement, hypertension, delirium of persecution. What is the most likely diagnosis?

a. Asthenovegetative syndrome

**b. Intoxication with carbon oxide**

c. Posttraumatic encephalopathy

d. Intoxication with ethyl gasoline

e. Hypertensive crisis

394. A worker who undergoes regular medical check-up for duodenal ulcer received a subsidized 24-day sanatorium voucher from his plant. The term of annual leave of a worker is 24 calendar days, it will take 4 days more to get to the sanatorium and back home. What is the procedure of obtaining a 4-day sick-leave?

a. The doctor in charge issues a health certificate and sanatorium patients file for 28 days

b. Medical Expert Commission issues a 4-day health certificate

c. Medical Expert Commission issues a 28-day sick list

d. The doctor in charge issues a 4-day sick list

**e. Medical Expert Commission issues a 4-day sick list**

395. A 42 year old metalworker has been working at the turning machine for production of heavy large-size parts for 5 years. His work requires using of hand and pedal levers that involves considerable physical force. What means for osteoarthritis prevention should be recommended?

a. To administer protein-and-carbohydrate diet

b. To improve health at the Black sea coast

c. To go in for weightlifting

**d. To limit physical work**

e. To administer protein-and-vitamin diet

396. Administration of a plant producing red lead paint intends to form a group of medical specialists for periodical medical examinations. What specialist must be obligatory included into this group?

**a. Neuropathologist**

b. Psychiatrist

c. Otolaryngologist

d. Dermatologist

e. Gynaecologist

397. The total area of a ward at the therapeutical department is 28 m<sup>2</sup>. What is the maximum number of beds that can be exploited in this ward?

a. 2

b. 1

**c. 4**

d. 3

e. 5

398. The amount of ultraviolet radiation dose was measured in minutes. What device was applied for measurement of the biodose?

a. Catathermometer

**b. Gorbachevs biodosimeter**

c. Actinometer

d. UV-meter

e. Radiometer

399. The institutions which take part in medical examinations can be prevention and treatment facilities, medical board of Ministry of Defense, medical board of Ministry of Home Affairs, medico-social expert commissions, forensic medical boards etc. What institutions are responsible for temporary disability examination?

a. Medical boards of Ministry of Home Affairs

**b. Prevention and treatment facilities**

c. Medico-social expert commissions

- d. Sanitary-and-prophylactic institutions
- e. Medical boards of Ministry of Defense

400. The institutions which take part in medical examinations can be prevention and treatment facilities, medical board of Ministry of Defense, medical board of Ministry of Home Affairs, medico-social expert commissions, forensic medical boards etc. What institutions are responsible for temporary disability examination?

- a. Medical boards of the Ministry of Defense
- b. Medical boards of the Ministry of Home Affairs
- c. Sanitary-and-prophylactic institutions
- d. Medico-social expert commissions

**e. Prevention and treatment facilities**

401. A mother who is on partially paid maternity leave got sick and was hospitalized. What document is to be issued to a working father who will be taking care of a child during his mothers illness?

- a. Free-form certificate
- b. Sick-leave**
- c. Certificate of childs care necessity
- d. Certificate of mothers illness
- e. Extract from the medical card of out- or in-patient

402. Clinical and statistical study was devoted to the effect of a new pharmacological medication upon the patients with coronary heart disease. What parametric criterion (coefficient) can be used for estimation of results validity?

- a. Kolmogorov-Smirnovs criterion
- b. Students coefficient (t)**
- c. Conformity coefficient
- d. Sign criterion
- e. Wilcoxons t-criterion

403. In terms of megacalorie (1000 kcal = 4184 kJ) the ration of an adult includes 30 g of proteins, 37 g of fats, 137 g of carbohydrates, 15 mg of vitamin C, 0,6 mg of thiamine (vitamin B1). The ration is UNBALANCED as to the contents of:

- a. Thiamine
- b. Vitamin C**
- c. Fats
- d. Proteins
- e. Carbohydrates

404. A city somatic hospital with 300 beds consists of the main building which houses the therapeutic and surgical departments. Several separate buildings house the maternity, pediatric and radiologic departments that are connected to the main building by underground walkways and above-ground covered skybridges. Specify the building system of the hospital:

- a. Free
- b. Combined
- c. Centralized
- d. Decentralized
- e. Central-unit**

405. A heat station working on solid fuel is located in a residential district. On cloudy foggy days in december there was an increase in diseases with upper airway affection and signs of general intoxication. There were also mortal cases among the elderly people. What is the most likely factor that provoked toxic effect?

- a. Temperature gradient
- b. Suspended materials**
- c. Calm
- d. High air humidity
- e. Low air temperature

406. Indices that characterize population health include demographic indices. What environment is used for calculation of these indices?

a. Number of population being liable to preventive examination

**b. Population number**

c. Number of hospitalized people

d. Employment number

e. Number of patients

407. While making sanitary examination of burn unit for adults it was stated that wards for 4 persons are of 28 m<sup>2</sup> square. What should be the minimum ward area in this unit?

a. 24 m<sup>2</sup>

b. 30 m<sup>2</sup>

c. 52 m<sup>2</sup>

**d. 40 m<sup>2</sup>**

e. 28 m<sup>2</sup>

408. The results of 5 year monitoring allowed to estimate the level of environmental influence upon health indices of population. What statistic method should be chosen?

a. Calculation of regression coefficient

b. Calculation of dynamic indices

c. Calculation of conformity coefficient

d. Calculation of coefficient of difference validity

**e. Calculation of correlation coefficient**

409. A student analyzes noise level of cold-pressing process. What device should be applied for this hygienic study?

**a. Noise and vibration analyzer**

b. Sound tester

c. Pyranometer

d. Actinometer

e. Noise analyzer

410. Environmental pollution is prevented by mechanical separation of nontoxic solid domestic waste. Specify the method which can be used for mechanical utilization of these wastes:

a. Waste neutralization in biothermal boxes

**b. Compressing of wastes into building blocks**

c. Burning as power-plant fuel

d. Hydrolysis

e. Burial of wastes

411. An emergency situation at a chemical plant caused acute occupational intoxication. A doctor who revealed the case of "acute occupational disease (intoxication)" must notify the following authority:

a. Plant administration

b. Medical unit of the plant

c. Ministry of Health of Ukraine

**d. Sanitary and epidemiological station**

e. Trade union committee of the plant

412. In order to study impact of microclimate upon the human organism it is necessary to make systematic observation of air temperature over 3 days. Choose a device that will allow to make the most precise temperature records:

a. Mercury thermometer

b. Alcohol thermometer

**c. Thermograph**

d. Augusts psychrometer

e. Assmann psychrometer

413. The Carpathian region is characterized by constant high humidity of atmospheric air (over 80%). Inhabitants of this region feel severe cold in corresponding season at a medium low temperature. Its caused by heat emission by:

- a. Radiation
- b. Conduction
- c. -
- d. Convection**
- e. Vaporization

414. Carpathian region is characterized by permanently high (over 80%) air humidity. In the cold season the population of this region feels very cold at moderately low temperatures. This is due to an increase in the heat transfer by:

- a. Radiation
- b. Convection**
- c. Evaporation
- d. Emission
- e. Conduction

415. In a city with population 400000 people 5600 fatal cases were recorded, including 3300 cases because of blood circulation diseases, 730 - because of tumors. What index will allow to characterize mortality from blood circulation diseases in this city?

- a. Visuality index
- b. Correlation index
- c. Extensive index
- d. Relative intensity index
- e. Intensive index**

416. A selective population research study was aimed at exploring the effect of air emissions from a metallurgical plant on the obstructive bronchitis morbidity in a city. The calculated correlation coefficient was +0,79. Evaluate the strength and direction of the relationship:

- a. -
- b. Direct, strong**
- c. Direct, average
- d. Inverse, strong
- e. Inverse, average

417. A general practitioner visited a 2-year-old child and diagnosed him with measles. The child attends a nursery, has a 5-year-old sister. What document must be filled in for the effective antiepidemic measures in the given health locality?

- a. Emergency notification on infectious disease (form № 058/o)**
- b. Infants record (report form № 112/o)
- c. Sick leave
- d. House call record (form № 031/o)
- e. Carers leave certificate

418. In the current year general practitioners of the municipal polyclinic have referred 11 patients with coronary artery disease to the in-patient hospital. In 3 cases the diagnosis wasnt confirmed. What managerial decision shoud be made in such case?

- a. Analysis of each case of diagnostic divergence**
- b. Analysis of diagnostic examination quality
- c. Analysis of material and technical basisof the polyclinic
- d. Analysis of doctors skill level
- e. Analysis of medical check-up quality

419. Hygienic expertise of a sample taken from the batch of grain revealed that 2% of grains were infected with microscopic Fusarium fungi. On the ground of laboratory analyses this batch of grain should be:

- a. Tested for toxicity**

b. Used for ethanol production

c. Destroyed

**d. Sold without restrictions**

e. Used for forage production

420. An employee has been diseased for 4 months, further treatment is necessary, the patient is incapacitated. Who is authorized to provide further disability examination of this patient?

a. Chief physician of a medical facility

b. Deputy chief responsible for disability examination

c. Medical consultative board

d. Physician in charge and chief of department

**e. Medical and social expert board**

421. Examination of a 43-year-old man objectively revealed pallor of skin and mucous membranes, loss of tongue papillae, transverse striation of fingernails, cracks in the mouth corners, tachycardia. Blood test results: Hb- 90 g/l, anisocytosis, poikilocytosis. The most likely causative agent of this state is inadequate intake of:

a. Copper

b. Magnesium

c. Selene

**d. Iron**

e. Zinc

422. During the medical examination a port crane operator complained of dizziness, nausea, sense of pressure against tympanic membranes, tremor, dyspnoea, cough. He works aloft, the work is connected with emotional stress. Workers are affected by vibration (general and local), noise, ultrasound, microclimate that warms in summer and cools in winter. What factor are the workers complaints connected with?

a. Altitude work

**b. Infrasound**

c. Vibration

d. Noise

e. Intensity of work

423. It is required to analyze the level of daylight illumination in a ward of therapeutics unit. What device should be applied to estimate the level of daylight illumination?

a. Actinometer

b. Psychrometer

c. Anemometer

d. Katathermometer

**e. Illuminometer**

424. A factory's sectorial doctor selects a group of persons who often fall ill for thorough monitoring. At the same time he takes into consideration the number of etiologically related cases with temporary disability in each of the employees over the last year. An employee falls into this group if the number of sickness cases is:

a. 3 or more

b. 6 or more

c. 1 or more

d. 2 or more

**e. 4 or more**

425. Production areas of a greenhouse complex have the following microclimate parameters: air temperature - 42°C, humidity - 98%, air velocity - 0,05 mps, temperature of enclosing surfaces - 15°C. Characterize the microclimate of production areas:

a. Cooling

b. Comfortable

**c. Overheated**

- d. Uncomfortable
- e. Satisfactory

426. Sanitary-veterinary examination of a cow carcass revealed measles contamination (2-3 measles per 10 cm<sup>2</sup>). What tactics should be chosen in respect of this meat consumption?

- a. Meat can be sold without any restrictions
- b. Meat should be disinfected by boiling
- c. Meat should be disinfected by freezing

**d. The whole carcass should be technically disposed**

- e. The carcass should be used for the production of canned meat

427. A factory worker has ARD complicated by acute bronchitis. He receives treatment in the outpatient setting. The attending doctor has issued him a medical certificate for 5 days and then extended its duration by 5 more days. Patient cant get down to work because of his health status. Who should extend the duration of medical certificate for this patient?

- a. Medical superintendent
- b. Deputy medical superintendent in charge of medical treatment
- c. Medical advisory commission

**d. A department chief**

- e. Deputy medical superintendent in charge of temporary disability examination

428. Preventive examination of an 11 year old boy helped to determine his habitus type. It was established that the childs shoulders were deviated and brought forward, with forward flexion of head, the thorax was flattened, abdomen was convex. The childs backbone had signs of deepened cervical and lumbar curvatures. What habitus is it?

- a. Lordosis
- b. Corrected
- c. Normal
- d. Kyphosis**

- e. Round-shouldered

429. During hygienic examination of a hospital it was established that the area for each bed in a double ward was: in the infectious department for children - 7 m<sup>2</sup>, in the infectious department for adults - 8 m<sup>2</sup>, in the burns department - 9 m<sup>2</sup>, in the radiological department - 10 m<sup>2</sup>, in the critical care department - 13 m<sup>2</sup>. In which wards the area for each bed doesnt correspond with hygienic requirements?

- a. In infectious wards for adults
- b. In infectious wards for children
- c. In burns wards**
- d. In radiological wards
- e. In critical care wards

430. According to the report of water quality control, drinking city water has the following characteristics: turbidity - 1,5 mg/m<sup>3</sup>, odour - 3 points, metallic taste - 2 points, pale yellow colour, colour index - 20o, temperature - 12o. Which of these factors doesnt comply with hygienic requirements?

- a. Odour**
- b. Colour index
- c. Taste
- d. Temperature
- e. Turbidity

431. A worker diagnosed with "acute dysentery" was sent to the infectious department by a doctor of aid post. What document should be used for registration of this disease?

- a. Inpatients card
- b. Statistic card of the patient who left in-patient hospital
- c. Statistic coupon for registration of final diagnoses
- d. Outpatients card

e. Urgent report on infectious disease

432. Researchers studied disease incidence of influenza and acute respiratory viral infection within the last 5 years. What kind of graphic presentation should be used for the best visualization of this data?

- a. Radial diagram
- b. Linear diagram**
- c. Bar diagram
- d. Pie diagram
- e. Histogram

433. Analysis of organization of medical care in a regional centre has shown that every year about 12% of patients receive inpatient care for diseases that dont require round-the-clock monitoring and intensive care. What are the most appropriate organizational changes required to address this problem?

- a. Development of medical care forms replacing the in-patient care**
- b. Development of primary care
- c. Upgrading of hospital facilities
- d. Restructuring of specialized care
- e. Changes to the statute of outpatient clinics

434. A city's population is 400000 inhabitants in 2005 there were registered 5600 deaths, including 3300 cases caused by cardiovascular diseases, 730 - by tumours. Which of the following indicators allows to characterize the share of the circulatory system diseases as the cause of death in the city?

- a. Index of relative intensity
- b. Intensive index
- c. Extensive index**
- d. Demonstrativeness index
- e. Ratio

435. It is planned to organize a rural outpatient clinic. The patients will be able to visit the doctors of the following specialities:

- a. Pediatrician, therapist, ophthalmologist
- b. Obstetrician-gynaecologist, therapist
- c. Therapist, pediatrician, neurologist
- d. Pediatrician, obstetrician-gynaecologist, ophthalmologist
- e. Therapist, dentist, pediatrician, obstetrician-gynecologist**

436. In a rural health district a child died in the first month of life. In order to analyze this situation it was necessary to complete expert evaluation of medical records. Which medical document was analyzed in the first place?

- a. Child's medical record
- b. Child developmental history record**
- c. Record of vaccinations
- d. Neonatal record
- e. Medical record of an outpatient

437. A department chief of an in-patient hospital is going to inspect resident doctors as to observation of medical-technological standards of patient service. What documentation should be checked for this purpose?

- a. Statistic cards of discharged patients
- b. Registry of operative interventions
- c. Annual report of a patient care institution
- d. Health cards of in-patients**
- e. Treatment sheets

438. Workers of a laboratory producing measuring devices (manometers, thermometers etc) complain about a metallic taste in mouth, stomatitis, dyspepsia, sleep disturbance, unsteady walk,

abrupt decrease in cardiac activity. These presentations must have been caused by the intoxication with the following substance:

- a. Lead
- b. Toluol
- c. Tetraethyl lead
- d. Mercury**
- e. Manganese

439. At first appointment with an obstetrician-gynaecologist a pregnant woman is referred to other medical specialists. She must be obligatory examined by the following specialists:

- a. Therapeutist and dentist**
- b. Dentist and phthisiatrician
- c. Dentist and cardiologist
- d. ENT and ophthalmologist
- e. Therapeutist and endocrinologist

440. Estimation of community health level involved analysis of a report on diseases registered among the population of district under charge (reporting form 12). What index is calculated on the grounds of this report?

- a. Index of basic non-epidemic morbidity
- b. Common morbidity rate**
- c. Index of morbidity with temporary disability
- d. Index of pathological affection
- e. Index of hospitalized morbidity

441. A 59-year-old male patient with essential hypertension of stage II is registered with the dispensary department of a polyclinic. The patient regularly takes ACE inhibitors and calcium antagonists. How often should a therapist examine this patient (except for exacerbation periods)?

- a. Every 3 months**
- b. Every 4 months
- c. Every 9 months
- d. Once a year
- e. Every 6 months

442. A municipal hospital reported on the number of operated patients including fatal outcomes following the operations. Which index of hospital work can be calculated on the ground of this data?

- a. Standardized lethality
- b. -
- c. Total lethality
- d. Index of late hospitalization since a disease incursion
- e. Postoperative lethality**

443. It is planned to build a multi-disciplinary hospital with 500 beds in a town. Specify the location of a polyclinic within the medical centre:

- a. It is not allowed to place the polyclinic within the centre territory
- b. In the service zone
- c. In the garden and park area
- d. In the centre of the territory near medical buildings
- e. At the main entrance**

444. Evaluation results of sanitary and hygiene conditions in a 4-bed ward were as follows: ward area - 30 m<sup>2</sup>, height - 3,2 m, temperature - 20°C, humidity - 55%, air velocity - 0,1 m/s, window-to-floor area ratio - 1:5, daylight ratio - 0,6%, concentration of carbon dioxide in the air - 0,1%. Which of the given indicators does not meet hygienic requirements?

- a. Ward area
- b. Daylight ratio**
- c. Window-to-floor area ratio
- d. Air velocity

e. Concentration of carbon dioxide in the air

445. Within the structure of the regions population the share of persons aged 0 to 14 years is 25%, the share of persons aged 50 years and older is 30%. What concept most accurately describes this demographic situation?

- a. Cohort reproduction
- b. Progressive type of population age structure
- c. Regressive type of population age structure**
- d. Stationary type of population age structure
- e. Immigration of population