Tasks for the general hygiene exam for 2nd year FIS students

TASK №1.

The daily diet of a 20-year-old trolleybus driver contained 60 g of protein, 86 g of fat and 500 g of carbohydrates.

Give a hygienic assessment of the adequacy and balance of the diet and recommendations.

TASK №2.

A 22-year-old student has a body weight of 55 kg. Daily energy consumption is 2800 kcal. Give a hygienic assessment of daily energy consumption, recommendations. Calculate CFA and basic metabolism (BM), give a hygienic assessment in accordance with physiological standards.

TASK №3.

A builder consumes 3500 kcal per day. The energy value of dinner is 1200 kcal, the basic metabolism (BM) is 1670 kcal. Calculate CFA, give a hygienic assessment of daily energy consumption and energy value of dinner, recommendations.

TASK №4.

A doctor weighing 75 kg at the age of 35 spends 1800 kcal per day, receives 2200 kcal from food during the day. Determine the BM, CFA and evaluate the energy value of the diet.

TASK №5.

A doctor weighing 50 kg at the age of 25 spends 1800 kcal per day, receives 2200 kcal from food during the day. Determine the BM, CFA and evaluate the energy value of the diet.

TASK №6.

A doctor weighing 60 kg at the age of 45 spends 1800 kcal per day, receives 2200 kcal from food during the day. Determine the BM, CFA and evaluate the energy value of the diet.

TASK №7.

The calorie content of the doctor-therapist's breakfast is 450 kcal, lunch 1000 kcal and dinner 500 kcal. CFA 1.6.

Assess the distribution of caloric content of the daily diet, calculate the energy needs for CFA and the actual intake of kcal / day, basal metabolism. Give recommendations.

TASK №8.

The calorie content of the doctor-therapist's breakfast is 500 kcal, lunch 1200 kcal and dinner 400 kcal. CFA 1.4.

Assess the distribution of caloric content of the daily diet, calculate the energy needs for CFA and the actual intake of kcal / day, basal metabolism. Give recommendations.

TASK №9.

During the sanitary-hygienic examination of the ward, it was found that the area per 1 bed is 4.5 m2, the ventilation is natural, the air flow into the ward is about 20 m3 per 1 hour per 1 bed.

Air analysis in the wards: CO2 content - 0.18%.

Assess the sanitary and hygienic conditions of patients' stay in the wards.

TASK №10.

During the sanitary-hygienic examination of the ward, it was found that the area per 1 bed is 7.5 m2, the ventilation is natural, the air flow into the ward is about 25 m3 per 1 hour per 1 bed.

Air analysis in the wards: CO_2 content - 0.18%.

Assess the sanitary and hygienic conditions of patients' stay in the wards.

TASK №11

Boy, 7 years old, has a height of 120 cm, weight 25 kg, the number of permanent teeth is 20, over the past year, body length has increased by 4 cm. Assess physical development by the centile method. provide conclusions and recommendations. Calculate body mass index.

TASK №12

Girl, 10 years old, has a height of 130 cm, weight 29 kg. Assess physical development by the centile method. provide conclusions and recommendations. Calculate body mass index

TASK №13

Boy, 8 years old, has a height of 123 cm, weight 35 kg. Assess physical development by the centile method. provide conclusions and recommendations. Calculate body mass index.

TASK №14

Girl, 8 years old, has a height of 138 cm, weight 38 kg. Assess physical development by the centile method. provide conclusions and recommendations. Calculate body mass index.

TASK №15

Boy, 9 years old, has a height of 123 cm, weight 24,5 kg. Assess physical development by the centile method. provide conclusions and recommendations. Calculate body mass index.

TASK №16.

The water obtained from an artesian well located on the territory of the settlement A. meets the requirements of sanitary norms and rules in terms of physical, chemical and microbiological indicators. However, in the last 2 weeks the following phenomena began to be observed: 2-3 hours after the rise, the water acquires a yellow-brown color, becomes cloudy, and flakes form in it.

Determine the causes of water quality deterioration and provide appropriate recommendations.

TASK №17.

A multidisciplinary city hospital with 300 beds is located near a green area, far from sources of noise and air pollution. The following zones are provided on the site: a landscaping zone (40%), a zone of medical non-infectious buildings, a zone of a medical infectious building, a zone of a pathoanatomical building, an economic zone.

There are three entrances to the territory of the hospital healthcare organization. Waste containers have been installed at a special site.

1. Evaluate the placement, zoning and landscaping of the hospital site.

2. What other requirements apply to the placement of hospital healthcare organizations?

ЗАДАЧА № 18

A patient with a diagnosis of food poisoning was admitted to the infectious diseases hospital. The patient's condition is serious. On examination, it was noted that the patient's tongue is dry, lined with a white-yellow coating, saliva is viscous. There is dilation of the pupils, there is no reaction to light, drooping of the eyelids (ptosis) is pronounced. The patient's face is mask-like, the act of swallowing is disturbed.

During the survey, it was established that the victim had eaten raw smoked fish bought in a store and home-made ham the day before.

1. Justify the diagnosis.
2. Specify the required studies.
3. Suggest measures to prevent poisoning of this etiology.

TASK №21.

Study of water from the city network: total hardness - 5.0 mg-eq / l, oxidizability - 3 mgO2 / l, microbial count - 50, residual chlorine - 0.4 mg / l, no coliphages.

Give an opinion on the possibility of using water for domestic and drinking purposes.

TASK №22.

In the classroom, the average air temperature is 20^0C, relative air humidity 65%, air mobility 0.1 m/s. Assess the microclimate in the apartment and its impact on human health.

TASK №23

In the classroom, the average air temperature is 25^0C, relative air humidity 70%, air mobility 0.2 m/s. Assess the microclimate in the apartment and its impact on human health.

TASK №24.

Describe the most common occupational risks to health and safety to which health workers are exposed while responding to the COVID-19 pandemic for the following specialties:

1. Radiologist
2. Infectious disease doctor
3. Surgeon
4. Pediator
5. Therapist

TASK №25.

In the living room, the air temperature is 22^0C, the relative humidity is 85%, and the air mobility is 0.1 m/s. What are the processes of thermoregulation under these conditions.

TASK №26.

In the living room, the air temperature is 22^0C, the relative humidity is 60%, and the air mobility is 0.12m/s. What are the processes of thermoregulation under these conditions.

TASK №27.

There are 3 people in a ward with a cubic capacity of 60 m^3. Find the air cube, ventilation volume, air exchange rate. Provide ratings and recommendations.

TASK №28.

In the living room, the air temperature is 20^0C, the relative humidity is 55%, and the air mobility is 0.12m/s. What are the processes of thermoregulation under these conditions.

TASK №29.

In the classroom with an area of 40 m2, a height of 3.2 m, 15 people are engaged. Determine the required air exchange rate.

TASK №30.

Describe the most common occupational risks to health and safety to which health workers are exposed while responding to the COVID-19 pandemic for the following specialties:

1. Traumatologist
2. Emergency doctor
3. Dermatologist
4. Otolaryngologist
5. Ophthalmologist

TASK №31.

Describe occupational health hazards for following occupations:

1. Radiologist
2. Infectious disease doctor
3. Surgeon
4. Pediator
5. Therapist

TASK №32.

The boy is 14 years old. Body length 163 cm, body weight 43 kg, annual increase in height 5 cm, number of permanent teeth 28. Sexual characteristics: hair in the axillary region occupies the central part of the cavity, thicker; on the pubis — on the entire triangle of the pubis, long, curly, thick; the appearance of a thick fluff above the upper lip is noted; voice established, male; adam's apple is not contoured, but pronounced on palpation. To evaluate physical development according to a comprehensive methodology**.**

TASK №33

A boy aged 7 years has a height of 133 cm, an increase in body length over the past year of 3 cm, 6 permanent teeth, body weight of 29 kg.

Evaluate the physical development of the child according to a comprehensive methodology and give hygienic recommendations for its correction

TASK №34.

A girl of 8 years old, height 130 cm, body weight 25 kg. To evaluate the physical development of the girl by the centile method.

TASK №35.

In the daily diet of a 40-year-old neurologist, proteins are 90 g, fats are 100 g, carbohydrates are 300 g. Determine the daily need for energy, nutrients, and their balance.

TASK №36.

The area of the ward is 30 m2, the area of the glazed part of the windows is 5m2, the illumination in the ward is 200 lux, outside the building is 20,000 lux. Assess the natural light in the ward by calculating the light coefficient and the natural light coefficient.