**State exam questions from Public and Occupational Medicine, Public Health, Social and Preventive Medicine – 2023/2024**

**1**.

a) Social Medicine and Public Health, definition. Historical backgrounds. Meaning for medical practice .

b) Irritative Chemical Substances

c) Methods of examination of nutritional state (clinical, somatometric, body composition assessment,

and biochemical examinations, examples of nutritional state disturbances).

**2.**

a) Health and disease as a biopsychosocial category. Health as a value . Well- being. Natural history of disease. Influencing pathological process.

b) Nefrotoxic Chemical Substances

c) Definitions of Child Abuse and Neglect.

**3.**

a) Determinants of health, categories. Social determinants, meaning and influencing. Inequalities in health.

Healthy lifestyle.

b) Hematotoxic Chemical Substances

c) Carbohydrates in the diet, their dietary sources, recommended allowances.

**4.**

a) WHO, role , goals and organs, programmes.

b) Diseases Caused by Vibrations

c) Nutrition during pregnancy and lactation.

**5.**

a) International Classification of Diseases. Coding scheme, meaning and practical use. International Classification of Functioning ,Disability and Health (ICF)

b) Hepatotoxic Chemical Substances

c) Hydro-thermic complex as an important factor of living conditions; the methods of measuring and

evaluating it.

**6.**

a) Methods of medical care (prevention, therapy, rehabilitative care). Primary care, HomeCare.

b) Occupational Infectious Diseases

c) Lipids in the diet, their dietary sources, usual and recommended intakes, their pathophysiological

significance for health.

**7.**

a) Disease prevention: primary, secondary and tertiary prevention, meaning. Preventive control, regular check-ups. Role of Family Doctor, General Practitioner and specialists.

b) Tumorous diseases of airway and lung

c) Growth and development of children .Characteristics of growth and development in different

periods of childhood and adolescence.

**8.**

a) Systems approach, inputs and outputs. Health care administration.

b) Ocular Damage

c) Proteins and amino acids, their dietary sources, recommended allowances for protein, general

signs of deficiency, risks of high protein intake.

**9.**

a) Health care systems: main types in the world. Examples.

b) Plumbum, Mercury

c) Differentiation of energy needs. Resting energy expenditure. Thermic effect of food. Thermic

effect of exercise. The world fatigue problem of hunger, general signs of marasmus.

**10.**

a) Screening tests, measures of validity. Using in medical practice.

b) Ionizing Radiation. Non-ionizing Radiation

c) Dietary fiber, its function on the digestive system, their dietary sources, daily recommended intake

and preventive effects.

**11.**

a) Health education: principles, methods and techniques. Meaning. Health literacy, definition, levels.

b) Effects of over- and underpressure. Caisson Disease. Hyperbaroxytherapy. Effects of Coldness and

Heat

c) The transportable diseases potentially spread by drinking water, prevention them; principles and

practice of disinfection of the water. The main sources of the chemical and microbiological

pollution of drinking water.

**12.**

a) Aging and old age : demographic aspects. Social and ethical problems of elderly.

b) Neurotoxic Chemical Substances

c) Vegetarian diet (Classification of vegetarian diets, risk for infants and children).

**13.**

a) Main causes of morbidity in old age. Comprehensive care for elderly, long term care (LTC).

b)Occupational Infectious Diseases - Lyme Borreliosis, Tick- borne meningoencephalitis

c) Planning of Community health projects (identifying priorities, setting aims and objectives, defining

target population, identifying resources, strategy, personal responsibility, time schedule, budget

and strategy of evaluation.

**14.**

a) Medical ethics in medical practice and medical science. Current ethical problems in medical care. Dehumanization and technology in medicine.

b) Occupational Medicine, Occupational Health, Occupational Injuries. Occupational Medical History.

c) Methods of examination of dietary intake and food habits (nutritional monitoring).

**15.**

a) Methods of measuring population health status.

b) Pulmonary Occupational Diseases – Occupational Asthma, Hypersensitivity Pneumonitis

c) Primary prevention of tumours from the community nutrition point of view.

**16.**

a) Indicators of health status (mortality, morbidity and life expectancy).

b) Skin Damage

c) Actual problems of atmosphere and global climate - greenhouse effect, ozonosphere injury,

chemical pollution of seas etc.: causes, international co-operation in prevention them; their impact

on the human health.

**17.**

a) Indicators of morbidity (incidence, prevalence and duration of disease). Reported morbidity.

b) Occupational Diseases in Food Industry

c) Classification of water by use and by origin from the hygienic point of view. The principles of

chemical and bacteriological assessment of drinking water; criteria of health safety for tape water.

**18.**

a) Demography, indicators (natality, mortality, fertility). Population problems world-wide, comparison (history, world).

b) Occupational Diseases in Forest Industry

c) Nutrition of infants and toddlers.

**19.**

a) Population, gender and age distribution, age pyramides. Population mobility and its indicators.

b) Carcinogenic Chemical Substances

c) The main widespread micronutrient problems: deficiency of iodine, iron, vitamin A, folic, acid.

**20.**

a) Epidemiology, definition, history. Types of epidemiological methods.

b) Chemical Substances, Effects of Chemical Substances, The Most Common Poisonings, Protective

Working Tools, First Aid, Antidotes

c) Three levels of dietary recommendations, their definition and application. Global strategy on diet,

physical activity and health. EHO, A57/9, 2004, Food based dietary recommendations, nutritional

standards (PRI)

**21.**

a) Prospective epidemiological studies. Advantages, disadvantages, examples. Relative risk, different risk – meaning.

b) Perceptive Hearing Malfunction Caused by Noise

c) Occupational carcinogens, testing the genotoxicity and carcinogenicity of chemical substances:

antimutagenic and anticarcinogenic dietary factors: primary prevention of tumorigenesis.

**22.**

a) Retrospective epidemiological studies. Advantages, disadvantages, examples. Relative risk, different risk – meaning.

b) Occupational Diseases in Mining Industry

c) Vitamins and minerals in the diet, their physiological needs, function in the body, manifestation of

deficiency.

**23.**

a) Sociological methods in public health. Interview, questionnaire, use, examples.

b) Occupational Diseases in Agriculture

c) Primary prevention of cardiovascular disease from the community nutrition point of view.

Interventional programmes.

**24.**

a) Biostatistics in medicine and public health, meaning. Fundamentals of statistics (population, sample,

variables). Meaning for medical research, experiments, publications.

b) Occupational Infectious Diseases - Hepatitis, Tuberculosis, Scabies

c) Three main aspects of diet: 1. Food supply in the range of sustainable development; 2. Food safety

(food legislation, food control, food safety surveillance and monitoring); 3. Nutrition (choice of

healthy composition of diet).

**25.**

a) Methods of random sampling, use. Stages of statistical investigation.

b) Occupational Diseases in Metallurgy

c) Obesity definition and characteristics, preventing and managing the global epidemic. Obesity and

its co-morbidities, metabolic syndrome.

**26.**

a) Sample characteristics : measures of location, measures of variation. Normal distribution.

b) Carbon monoxide, Chlorine

c) The health-harmful sound; the sources of it: the modes of evaluating and limiting of noise in

out- and in-door ambient.

**27.**

a) Probability, probability rules. Statistical estimation: principles, methods and application.

b) Diseases Caused by Overload

c) Health problems of tobacco using, options for treatment of nikotinism, WHO preventing activities

of tobacco using.

**28.**

a) Hypothesis testing : general concept and main steps. Interpretation of results.

b) Occupational Diseases, History, Legislation, The Most Common Occupational Diseases

c) The hazard effects of the common chemical pollutants in the open air; the photooxidative smog,

their formation and their health- risks; biomonitoring of the athmosphere pollution.

**29.**

a) Tables and graphs in statistics, rules and use. Statistical bias in investigation. Bias (errors) in hypotheses testing.

b) Pulmonary Occupational Diseases – Pneumoconioses – Silicosis, Coal Workers´ Pneumoconiosis,

Asbestosis

c) Health and its dimension. Major determinants of health. Health promotion (health education

programmes, economic and regulatory activities, environmental health measures, healthy public

policies, organisational development, community based work, preventive health services)

**30.**

a) Health status of Czech population. Comparison with other countries.

b) Occupational Diseases in Health Care

c) The principles of the physiologically adequate lighting; the methods of measuring and evaluating of

both daily and artificial light in a room.