

Marking scheme of healthcare of class 10th

Instructions) निर्देश - :(

1. All questions are compulsory. (सभी प्रश्न अनिवार्य हैं)
2. Question no **1 and 3** are long answer type questions carrying **five marks**.
(प्रश्न 1 से 3 पांच नंबर के हैं)
3. Question no **4 to 9** are short answer type question carrying **three marks**.
(प्रश्न 4 से 9 तीन नंबर के हैं)
4. Question no **10 to 15** are very short answer type question carrying **two marks**.
(प्रश्न 10 से 15 दो नंबर के हैं)
5. Question no. **16 to 30** are MCQ/ One Word/ Fill in the Blank type's questions carrying **one marks** each. (प्रश्न 16 से 30 तक एक नंबर के हैं)

Long Answer Types of Questions

3 x 5 = 15 Marks

1. मनुष्य के लिए टीकाकरण क्यों महत्वपूर्ण है?

Why immunization is important for human beings ?

Or

Answer –

- Immunization saves a child's life: Immunization helps to protect your child against various diseases.
- Immunization is safe and effective: All vaccines that are given to children are completely safe and effective, as various medical professionals have tested them. The only discomfort can be pain, redness or tender feeling among few.
- Immunization prevents spread of diseases: If a person is immunized, there is little to risk of an epidemic. Thus, it also prevents spreading of the disease.
- Immunization saves time and money: A prolonged illness can take a toll on your finance as well as your precious time. Immunization is a good investment, as it saves time, money and promotes good health.
- Immunization protects future: Immunization has helped to eradicate polio to some extent. If we keep on practicing immunization, in near future we will be able to eradicate all these diseases completely.
- Immunisation has reduced mortality rate
- Immunisation has made children more healthy and fit.
- Immunisation promotes long life span.

or

शारीरिक परीक्षा की तकनीकें क्या हैं?

What are the techniques of physical examination?

Answer - Techniques of Physical Examination

The four basic techniques used in physical examination are as follows:

- (i) **Inspection** It is the systematic visual examination of the patient or it is the process of performing deliberate purposeful observations in a systematic manner. It involves

observation of the colour, shape, size, symmetry, position and movements. It also uses the senses of smell to detect odour, and sense of hearing to detect sounds

General inspection of a patient focuses on the following areas. • Overall appearance of health or illness. • Signs of distress. • Facial expression and mood. • Body size. • Grooming and personal hygiene Besides being used in general survey, inspection is the first method used in examination of a specific area. The patient and abdomen are inspected before palpation and auscultation.

- (ii) **Palpation** It is use of the hands and fingers to gather information through touch. It is the assessment technique which uses sense of touch. It is feeling the body or a part with hands to note the size and position of the organs. The hands and fingers are sensitive tools and can assess temperature, turgor, texture, moisture, vibrations, size, position, consistency, masses and fluid. The dorsal surfaces of the hand and fingers are used to measure temperature. The palmar surfaces of the fingers and finger pads are used to assess texture, shape, fluid, size, consistency and pulsation. Vibration is palpated best with the palm of the hand. The GDA hands should be warm and the touch should be gentle and respectful. Areas of tenderness are palpated last. Light, moderate, or deep palpation may be used. The purpose of deep palpation is to locate organs determine their size and to detect abnormal masses in the body.
- (iii) **Percussion** It is the examination by tapping the fingers on the body to determine the condition of the internal organs by the sound that are produced. Percussion is the act of striking one object against another to produce sound. The sound waves produced by the striking action over body tissues are known as percussion tones or percussion notes. Percussion tone provides information about the nature of an underlying structure. It is used to outline the size of an organ, such as bladder or liver. Percussion is also used to determine if a structure is air-filled, fluid-filled or solid. There are two types of percussion, direct and indirect. **Direct percussion** is accomplished by tapping an area directly with the finger tip of the middle finger or thumb. **Indirect percussion** involves two hands. The hand is placed on the area to be percussed and the finger creating vibrations that allows discrimination among five different tones. The degree to which sound propagates is called resonance.

(iv) **Auscultation** It is the process of listening to sounds that are generated within the body.

Auscultation is usually done with the help of a stethoscope. The heart and blood vessels are auscultated for circulation of blood; the lungs are auscultated for moving air gastrointestinal contents. When auscultating a part, that area should be exposed, and should be quiet.

Four characteristics of sound are assessed by auscultation: 1. Pitch (ranging from high to low). 2. Loudness (ranging from soft to loud). 3. Quality (gurgling or swishing). 4. Duration (short, medium or long)

2. विसंक्रण स्टेरिलाइजेशन में प्रयुक्त विभिन्न एजेंटों का वर्गीकरण कीजिये

Write down the classification of various agents used in sterilization?

Answer - The various agents used in sterilization can be classified as follows:

A. Physical agents • Sunlight • Drying • Dry heat : flaming, incineration, hot air • Moist heat: pasteurization, boiling, steam under normal pressure, steam under pressure • Filtration : candles, asbestos pads, membranes • Radiation • Ultrasonic and sonic vibrations

B. Chemical • Alcohols: ethyl, isopropyl, trichlorobutanol • Aldehydes: formaldehyde, glutaraldehyde • Dyes • Halogens • Phenols • Surface – active agents • Metallic salts: e.g. salts of Ag, Cu, Hg • Gases : ethylene oxide, formaldehyde, beta propiolactone

or

बुजुर्गों के भोजन और तरल पदार्थ की जरूरतों का वर्णन करें।

Describe the food and fluid needs of the elderly .

Answer - Food and nutritional needs also change as a person gets older and older.

The need for calories decreases when a person gets older. These needs are highest when the person was an infant or a teen. Old patients and residents need the least calories of all age groups. They do not burn calories and food as quickly as they did when they were younger and more active. This does not mean, however, that the elderly do not need a good diet. Older patients do need a good diet just like the other age groups. The appetite and the digestive process slows down as the human body ages. Old adults do not feel as hungry as they did when they were young. Also, when they eat meals they feel full and they may not want to eat another meal for a long time. They may even skip a meal. Old adults often do better with small snacks during the day rather than large meals three times a day. In terms of fluid needs (hydration), an elderly patient may not be able to swallow fluids. They may not even feel thirsty when they should under normal conditions. We must, therefore, offer fluids very often to elderly. The GDA should use apron and proper utensils for feeding the elderly patients.

3. W.H.O के अनुसार अस्पताल में किस प्रकार का कचरा उत्पन्न होता है?

What type of different waste generated in the hospital according to W.H.O ?

Answer - The World Health Organization (WHO) has classified the hospital waste into the following categories:

1. General Waste: The waste generated from office, administrative offices, kitchen, laundry and stores.
2. Sharps: Hypodermic needles, needles attached to tubing, scalpel blades, razor, nails, broken glass pieces, etc.
3. Infected waste: Equipment and instruments used for diagnostic and therapeutic procedures, waste from surgery like tissues and organs removed and autopsy.
4. Chemical waste: Formaldehyde used for preserving tissues and organs, fixer and developers used in radiology department. Solvents like xylene, acetone, ethanol and methanol used in laboratories.
5. Radioactive waste: Various radioactive wastes generated through the activities of the department like research activity, clinical laboratory and nuclear medicine department
6. Cytotoxic drugs: Various anti-cancer drugs

or

दवा देने के सात अधिकार क्या हैं?

What are the seven rights in drug administration ?

Answer – 1 The Right Medicine- Do NOT use any medicine that has a label that you cannot read. Do NOT use any medicine unless it has a complete label. Read and double check the label against the medicine record at least three times and tell the person the name of the medicine before you help them. If the person says they do not get this medicine, STOP. Do not help. Report this to your supervisor/doctor. If a patient takes the wrong medicine, it must be reported to the Doctor immediately.

2 The Right Patient You must check the identity of the person before you help them with the medicines.

3 The Right Time The right time is 30 minutes before and up to 30 minutes after the time on the bottle and the order. For example, a person can take medicine anytime between 9:30

am and 10:30 am if the medicine is to 4 are not taken at a special time of the day. They are taken only when they are needed but not more often than the order states. For example, the doctor may order aspirin q 4 h prn for pain. This aspirin can be given when the person has pain but there must be a duration of at least 4 hours between doses.

4 - The Right Dose Check and double check the dose. Scored tablets must be cut in half if the label says 1/2 tablet. It is an error when the person takes more or less than he/she should. This error must also be reported.

5 - The Right Route Check the label to find out the right route. A buccal medication should not be swallowed (oral route). It is an error when a person takes a medicine with the wrong route. This error must be reported.

6- The Right Form Check the label against the order to make sure that you have the right form. A pill cannot be given if the order says a liquid. It is an error when a person takes the wrong form. This too must be reported.

7 - The Right Documentation All documentation must be complete and accurate. Refused Medicines A person has the right to refuse a medicine. This refusal must be reported and documented. Forgotten Medicines Report and document if the person forgets to take medicine or you forget to remind him/her it is time to take medicine.

Short Answer Types Questions

6 x 3 = 18 Marks

4. संक्रमण की रोकथाम में हाथों की स्वच्छता की क्या भूमिका है?

What is the role of hand hygiene in prevention of infection?

ANSWER - Hand washing is a simple act that saves lives from many life-threatening diseases. Hand wash prevent germs from enter into our body. It prevents us from diseases like diarrhea and influenza.

It also prevents from communicable diseases and bacterial infections.

It has reduced infant mortality rate by up to 50% in developing countries.

It is very helpful in preventing people from a weakened immune system from getting infected.

It keeps the children stay out of diseases and concentrates on their studies.

It saves a lot of money and resources on being spent over health concerns.

5.रोगी की ऊंचाई और वजन की जांच करते समय क्या सावधानियां बरतनी चाहिए?

What are the precautions to be taken while examining height and weight of the patient?

Answer - To measure the length of the baby who cannot stand, place the baby on a hard surface, with the soles of the feet supported in an upright position. The knees are extended and the measurement is taken from the soles of the feet to the vertex of the head. The head should be in such a position that the eyes are facing the ceiling. After a child can stand, the height can be measured. If the child stands with the heels, back and head against a wall, a small flat board held from the top of the head to the wall will give an accurate measure of the height that is the distance from the floor to the board.

The weight of a person who can stand is generally measured by a standing scale. The patient stands on the platform and the weight is noted on the dial. Usually the weight is taken without shoes. To take the weight of a baby, a weighing scale with a container, where the baby can be laid, is used. It is important to weigh a baby unclothed or to weigh the clothes separately and subtract this weight.

6.जैवचिकित्सा अपशिष्ट के स्रोतों को सूचीबद्ध करें

Enlist the sources of bio-medical waste.

ANSWER - Biomedical waste is generated from biological and medical sources and activities in hospitals, clinics, healthcare organizations, veterinary hospitals, etc. The sources can be classified as major and minor source, depending upon the amount of waste generated.

1. Hospital a) Hospitals of all category like general, specialist hospitals, private as well as public sector hospitals generate biomedical wastes. b) Departments like Surgery, Gynaecology and Obstetrics, Paediatrics, Oncology, orthopaedics, Ophthalmology, ENT, Physical Medicine and Rehabilitation, Emergency Services, Operation Theatres, ICU, Critical Care Medicine, Burns and trauma, Neurosurgery etc. generate specific type of biomedical wastes.

2. Clinics a) Physicians, Dentists, Maternity clinics, Immunization Clinics, Dialysis centres and endoscopists. b) Dispensaries of state or central governments

3. Healthcare organizations a) Polyclinics b) Nursing homes c) Geriatric homes d) Home for mentally retarded e) Mental asylums

4. Support Services a) Blood banks, pharmacy, mortuary, laundry, Laboratories

5. Veterinary Hospitals

7. सतत विकास की दिशा में शिक्षा के महत्व की व्याख्या करें।

Explain the importance of education towards sustainable development.

Answer - Sustainable development is the development that satisfies the needs of the present without compromising the capacity of future generations, guaranteeing the balance between economic growth, care for the environment and social well-being. Economic development is using up resources of the world so quickly that our future generations, the young people of the world, would have serious environmental problems, much worse than those that we are facing at present. With increasing population and income, the consumption of goods is increasing day by day. This has led to increase in production and utilisation of natural resources, which are required for producing goods. Society must thus change its development strategy to a new form where development will not destroy the environment. This form of sustainable development can only be brought about if each individual practices a sustainable lifestyle. Since most of the natural resources are scarce, therefore, careful utilisation of resource is necessary.

Education is the most important factors for sustainable development. Children who have gone to school will be able to do jobs so that they can take care of themselves and their families. Education helps us become aware of our role as a responsible citizen.

We should 1. use the facilities present in our areas. 2. take our friends to school. 3. help friends study. 4. stop friends from dropping out of school.

8. रोगी की जांच करते समय जब रोगी का इतिहास लिया जाता है उस समय होने वाली प्रक्रिया की व्याख्या करें

Explain the content of history taking of patients

Answer - 1. Biographic data: Name, address, gender, age, marital status, occupation, religious preferences, health care financing, primary healthcare provider, family income educational qualification, etc.

2. Chief complaints: Document in patient's own words.

3. History of present illness: Onset, signs and symptoms, duration, treatment taken if any, for the same. Other complaints, such as loss of appetite, insomnia, disorders of stomach, etc. also should be found out. The GDA should also find out the patient's health habits – eating, sleeping etc.

4. Past medical history: Childhood illness – mumps, measles and so on. Information on allergies, mental disease, accidents, injuries, surgeries should also be collected.

5. Family history: Information about all family members (father, mother, grandparents, brothers and sister) living or dead, cause of death (if dead) condition of their health (if living) family history of any illness, e.g. Diabetes mellitus, cancer, heart disease, etc.

6. Lifestyle / high risk behaviour: Smoking alcoholism, substance abuse, if yes, how much and since when? Food habits. Food likes and dislikes, pattern of sleep, exercise pattern, etc.

7. Obstetrical history: Menstrual history, history of pregnancy, labour, and puerperium and their complications.

or

बुजुर्गों के भोजन और तरल पदार्थ की जरूरतों के बारे में बताएं।

Explain the food and fluid needs of the elderly .

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The need for calories decreases when a person gets older. These needs are highest when the person was an infant or a teen. Old patients and residents need the least calories of all age groups. They do not burn calories and food as quickly as they did when they were younger and more active. This does not mean, however, that the elderly do not need a good diet. Older patients do need a good diet just like the other age groups. The appetite and the digestive process slows down as the human body ages. Old adults do not feel as hungry as they did when they were young. Also, when they eat meals they feel full and they may not want to eat another meal for a long time. They may even skip a meal. Old adults often do better with small snacks during the day rather than large meals three times a day. In terms of fluid needs (hydration), an elderly patient may not be able to swallow fluids. They may not even feel thirsty when they should under normal conditions. We must, therefore, offer fluids very often to elderly. The GDA should use apron and proper utensils for feeding the elderly patients.

9. गहरी सांस लेने के व्यायाम की प्रक्रिया का वर्णन करें

Describe the procedure of deep breathing exercise.

Answer - 1. Put hand on abdomen between stomach and chest. Patient's hand should feel like it's on top of an inflating balloon. Now let the air out through mouth by relaxing.

2. Put patient's hands on the sides of chest. As patient take a deep breath, try to make patient's hands spread away from each other on either side of patient's chest. Now let the air out through mouth by relaxing.

3. A plastic breathing device called a Triflo (Flow meter) may be given to patient after surgery. The Triflo has three blue balls inside a clear plastic box. Make the balls rise by sucking air into patients chest as patient would suck on a straw. The light blue ball comes up first, followed by the medium blue ball, and finally the dark blue ball. Try to hold up as many balls as possible, then relax, and let the balls drop.

or

सामान्य संचार बाधाओं को उदाहरण सहित लिखिए।

Write down the common communication barriers with example.

Answer - Physical Barriers- Physical barrier is the environmental and natural condition that act as a barrier in communication in sending message from sender to receiver. Not being able to see gestures, posture and general body language can make communication less effective. For example, text messages are often less effective than face-to-face communication.

Linguistic Barriers - The inability to communicate using a language is known as language barrier to communication. Language barriers are the most common communication barriers, which cause misunderstandings and misinterpretations between people. For example, slang, professional jargon and regional colloquialisms can make communication difficult.

Interpersonal Barriers - Barriers to interpersonal communication occur when the sender's message is received differently from how it was intended. It is also very difficult to communicate with someone who is not willing to talk or express their feelings and views.

Stage fear, lack of will to communicate, personal differences can create interpersonal barriers to communication.

Organisational Barriers - Organisations are designed on the basis of formal hierarchical structures that follow performance standards, rules and regulations, procedures, policies, behavioural norms, etc. sometimes due to the stringent rules, the employees find it difficult to communicate with their peers too.

Cultural Barriers - Cultural barriers is when people of different cultures are unable to understand each other's customs, resulting in inconveniences and difficulties. People sometimes make stereotypical assumptions about others based on their cultural background, this leads to difference in opinions and can be a major barrier to effective communication.

Very Short Answer Types Questions

6 x 2 = 12 Marks

10. दृश्य संचार के लिए उपयोग किए जाने वाले किन्हीं पांच सामान्य संकेतों को बनाएं और उनके द्वारा दिए गए संदेश के बारे में लिखें।

Draw any five common signs used for Visual Communication and write about the message conveyed by them .

Answer -



11. अस्पतालों में सूक्ष्मजैविक अपशिष्टों के निपटानकी विधियोंका वर्णन कीजिए।

Describe the methods of disposing of microbiological wastes in hospitals.

Answer - This is done by autoclaving hydroclaving, microwave or incineration.

Incineration: The waste collected in yellow coloured bags is transported to the site of incineration. The ash produced by incineration should be sent for secure land filling.

Autoclaving : An autoclave is a machine that uses steam under pressure to kill harmful bacteria, viruses, fungi, and spores on items that are placed inside a pressure vessel

12. वृद्ध लोगों में हड्डियों की आम समस्याएं क्या हैं?

What are the common problems of bones in elderly people ?

Answer - • Bones lose calcium.

- Bones get weaker and thinner.
- Disks of spine get smaller so some will have a curve in the spine
- Joints get less flexible and less mobile.

13. वायरस द्वारा होने वाले किन्हीं पांच मानव रोगों की सूची बनाएं?

List any five human diseases caused by viruses?

Answer - flu, mumps, smallpox (variola, already considered eradicated), rubella, measles, Severe acute respiratory syndrome (SARS). Main viral diseases transmitted through blood or sexual contact are Acquired Immuno Deficiency Syndrome (AIDS), hepatitis B, hepatitis C, Human Papillomavirus (HPV) ebola hemorrhagic fever. Main viral diseases transmitted by animal vectors are rabies, dengue fever, yellow fever. Some viral diseases transmitted by fecal-oral route, including contaminated food, is Hepatitis A. (Any 5)

14. गैरमौखिक संचार के दो तरीकों के उदाहरण सहित नाम लिखिए।

Name any two methods of non verbal communication with examples

Answer -1-Gestures - Raising a hand to greet or say goodbye

Pointing your finger at someone

2 - Expressions - Smiling when you are happy

Making a sad face when you are sad

or

What are the differences between innate immunity and adaptive immunity?

जन्मजात प्रतिरक्षा और अनुकूली प्रतिरक्षा के बीच अंतर क्या है?

Answer - Innate Immunity

Innate immunity describes your body's barriers to infection that are in-built (or innate). This includes:

- skin
- the acid in your stomach
- saliva
- tears
- mucus in your mouth and nose
- cells in your blood stream that can destroy bacteria.

It is first line of defence.

These innate systems do not change with multiple exposures to the same infection; there is no 'learned' response no matter how many times your body is exposed to the same organism.

Adaptive Immunity

It is second line of defence is called adaptive immunity. By adapting to fight infections from particular bacteria or viruses, your body can become immune to infections caused by the same organism in the future. This adaptation by your body to prevent infection is the basis of immunization. Certain types of blood cells can learn from exposure to an infection. This means that the next time they encounter that infection they can remember it and mount a faster and stronger response.

15. औषधि प्रबंधन के किन्हीं 5 मार्गों को सूचीबद्ध करें।

Enlist any 5 routes of drug administration .

Answer - Routes can be:

- Oral • Buccal (inside cheek)
- Sublingual (under the tongue)
- Topical (on the skin)
- Ophthalmic (eye)
- Otic (ear)

or

जीवाणु-नाशन क्या है?

What is sterilisation ?

Sterilization destroys all microorganisms on the surface of an article or in a fluid to prevent disease transmission associated with the use of that item

Objective Types Questions

15x 1 = 15 Marks

16. एक स्वस्थ मानव शरीर के पेट में कौन सा सूक्ष्मजीव पाया जाता है?

- (क) एस्पेरजिलस
(ख) कैंडिडा
(ग) लैक्टोबैसिलस
(घ) ई कोलाई

Which one of the microbe found in stomach of a healthy human body ?

- (A) Aspergillus
(B) Candida
(C) Lactobacillus
(D) E. Coli

Answer – C

17. पशु अपशिष्ट किस अपशिष्ट श्रेणी के अंतर्गत आता है ?

- (क) श्रेणी 1

(ख) श्रेणी 2

(ग) श्रेणी 3

(घ) श्रेणी 4

Animal waste comes under which waste category ?

(A) Category 1

(B) Category 2

(C) Category 3

(D) Category 4

ANS - B

18. क्लिनिकल वेस्ट जिसे ऑटोक्लेविंग की आवश्यकता होती है, को _____ बैग/कूड़ेदान बैग में डिस्पोज किया जाता है।

(क) पीलाबैग

(ख) कालाबैग

(ग) लालबैग

(घ) नीलाबैग

Clinical waste which require autoclaving is disposed in _____ bag/ dustbin.

(A) Yellow bag

(B) Black bag

(C) Red bag

(D) Blue bag

ANS – D

19. कोई अनुपचारित बायोमेडिकल कचरा _____ घंटे की अवधि से अतिरिक्त संग्रहित नहीं करना चाहिए।

(क) 24 घंटे

(ख) 48 घंटे

(ग) 52 घंटे

(घ) 72 घंटे

No untreated biomedical waste shall be kept stored beyond a period

_____ hours.

(A) 24 hours

(B) 48 hours

(C) 52 hours

(D) 72 hours

ANS - D

20. एन पीओ का उपयोग _____ के लिए किया जाता है

(क) जब आवश्यक हो

(ख) जरूरत नहीं है

(ग) मुंह से कुछ नहीं

(घ) इनमें से कोई नहीं

NPO is used for _____

(A) When needed

(B) Not needed

(C) Nothing by mouth

(D) none of these

ANS - C

21. ऑस्टियोपोरोसिस क्या है?

What is Osteoporosis ?

ANS – where the bones become thin and brittle

22. तरल कचरे को _____ घोल का उपयोग करके रासायनिक उपचार द्वारा कीटाणु रहित किया जाना चाहिए।

Liquid wastes should be disinfected by chemical treatment using _____ solution.

ANS – 1% sodium hypochlorite solution

23. _____ और _____ दवाइयों के सबसे आम दुष्प्रभाव हैं

_____ and _____ are the most common side effects of drugs

Answer - NAUSE AND VOMITING

24. प्रतिरक्षा क्या है?

What is immunity ?

Answer - The protection of the body from a disease caused by an infectious agent, such as a bacterium or virus.

25. जैवचिकित्सा अपशिष्ट को परिभाषित कीजिए।

Define Bio medical waste.

ANS – It is “any solid, fluid or liquid waste, including its container and any intermediate product, which is generated during the diagnosis, treatment or immunization of human beings or animals”.

26.1 से 11 वर्ष की आयु के बच्चों की हृदय गति 70 से _____ बीट प्रति मिनट तक होती है।
Heart rate of child ages from 1 to 11 year ranges from 70 to _____ beats per minute.

ANS – 120bpm

27. PLB-का पूर्ण रूप लिखिए
Write the full form of – PLB

ANS - PURSED LIP BREATHING

28. आप दूसरों को अपने कंप्यूटर का उपयोग करने से कैसे रोकेंगे ?
How will you prevent others from using your computer ?

ANS - To prevent computers from being used by unauthorized persons it must be locked when the users are not working on it. This will ensure that no unauthorised person can see or make changes to our information without taking our permission. To make sure the computer is locked, the login IDs and passwords must be created.

29. एच ए आई का मतलब _____ है।
HAI stands for _____.

Answer - HOSPITAL ACQUIRED INFECTIONS

30. रोगजनक क्या है?
Define pathogen ?

Pathogens are organisms that cause disease.