

UP Board Class 10 Home Science - 823 (CE) - 2025 Question Paper with Solutions

Time Allowed :3 Hours	Maximum Marks :70	Total questions :35
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General Instructions

Instruction:

- i) All questions are compulsory. Marks allotted to each question are given in the margin.
- ii) In numerical questions, give all the steps of calculation.
- iii) Give relevant answers to the questions.
- iv) Give chemical equations, wherever necessary.

Q1. Which vitamin is water soluble?

- (A) Vitamin A
- (B) Vitamin B
- (C) Vitamin D
- (D) Vitamin K

Correct Answer: (B) Vitamin B

Solution:

Step 1: Classification of vitamins.

Vitamins are divided into two groups: - **Fat-soluble vitamins:** A, D, E, K. They dissolve in fats and are stored in the liver and fatty tissues. - **Water-soluble vitamins:** Vitamin C and Vitamin B-complex (B1, B2, B3, B6, B12, folic acid, etc.). These dissolve in water and are not stored in large amounts.

Step 2: Checking the options.

- Vitamin A $\Rightarrow$ Fat-soluble. - Vitamin B $\Rightarrow$ Water-soluble. - Vitamin D $\Rightarrow$ Fat-soluble. - Vitamin K $\Rightarrow$ Fat-soluble.

Step 3: Conclusion.

Thus, the only correct answer is Vitamin B.

Final Answer:

Vitamin B is water soluble.

Quick Tip

Remember: Vitamins B and C are water soluble. All other vitamins (A, D, E, K) are fat soluble.

Q2. Ice cap is used for

- (A) on acute fever
- (B) on consuming poison

- (C) when cold
- (D) sleepiness

Correct Answer: (A) on acute fever

Solution:

Step 1: Purpose of ice cap.

An ice cap (or ice bag) is a medical aid used to lower body temperature. It is especially useful during high fevers to reduce temperature and prevent complications like convulsions.

Step 2: Elimination of wrong options.

- Consuming poison $\Rightarrow$ treated by stomach wash or antidotes, not ice cap. - Cold or sleepiness $\Rightarrow$ ice cap is not used.

Step 3: Correct choice.

Thus, the correct use of an ice cap is in acute fever.

Final Answer:

Ice cap is used on acute fever.

Quick Tip

Ice caps help lower high fever by cooling the body surface. Never use it for poisoning or drowsiness.

Q3. In diarrhoea, there is a decrease of this in the patient's body –

- (A) Fat
- (B) Protein
- (C) Carbohydrate
- (D) Water

Correct Answer: (D) Water

Solution:

Step 1: Nature of diarrhoea.

Diarrhoea involves frequent watery stools, leading to rapid loss of fluids and electrolytes.

Step 2: Identifying the loss.

- Fats, proteins, and carbohydrates are not lost significantly. - The primary loss is of water and salts, which causes dehydration.

Step 3: Medical implication.

If untreated, severe water loss can cause shock and even death.

Final Answer:

In diarrhoea, the major loss is of water.

Quick Tip

ORS (Oral Rehydration Solution) is the best remedy to replace lost water and electrolytes.

Q4. Ideal Budget is considered to be –

- (A) Deficit budget
- (B) Balanced budget
- (C) Budget of saving
- (D) Daily budget

Correct Answer: (B) Balanced budget

Solution:**Step 1: Understanding budgets.**

A budget is a financial statement of expected income and expenditure.

Step 2: Types of budgets.

- Deficit budget $\Rightarrow$ expenditure $>$ income. - Surplus budget $\Rightarrow$ income $>$ expenditure. - Balanced budget $\Rightarrow$ income = expenditure.

Step 3: Ideal situation.

For stability, the most ideal form is a balanced budget where no deficit or surplus exists.

Final Answer:

Ideal Budget is a Balanced Budget.

Quick Tip

Balanced budget ensures economic stability and avoids unnecessary borrowing or inflation.

Q5. Which organ is not a part of respiratory system?

- (A) Nose
- (B) Lungs
- (C) Liver
- (D) Trachea

Correct Answer: (C) Liver

Solution:

Step 1: Respiratory system.

It includes the nose, trachea, bronchi, and lungs, which are responsible for inhaling oxygen and exhaling carbon dioxide.

Step 2: Role of liver.

The liver belongs to the digestive system, where it produces bile and helps in metabolism. It has no role in respiration.

Final Answer:

Liver is not part of respiratory system.

Quick Tip

Respiration involves only airways and lungs; liver is concerned with digestion and detoxification.

Q6. Cost of one litre milk is ₹65, then what will be the cost of 2.5 litres milk?

- (A) ₹162.00
- (B) ₹165.50
- (C) ₹162.50
- (D) ₹130.50

Correct Answer: (C) ₹162.50

Solution:

Step 1: Unit price.

Given, cost of 1 litre milk = ₹65.

Step 2: Multiply for 2.5 litres.

$$\begin{aligned}\text{Total cost} &= 65 \times 2.5 \\ &= 65 \times \left(\frac{5}{2}\right) = \frac{325}{2} = 162.50\end{aligned}$$

Step 3: Conclusion.

Thus, the cost of 2.5 litres milk = ₹162.50.

Final Answer:

Cost of 2.5 litres milk = ₹162.50

Quick Tip

Always multiply the unit price with the required quantity to get total cost. Convert fractions carefully when multiplying.

Q7. Vitamin B₁ is called –

- (A) Thiamine
- (B) Riboflavin

(C) Cobalamine

(D) Niacin

Correct Answer: (A) Thiamine

Solution:

Step 1: Identify Vitamin B₁.

Vitamin B₁ is the first discovered vitamin of the B-complex group. It plays a crucial role in carbohydrate metabolism and nerve functioning.

Step 2: Match with options.

- Thiamine $\Rightarrow$ Vitamin B₁. - Riboflavin $\Rightarrow$ Vitamin B₂. - Niacin $\Rightarrow$ Vitamin B₃. -

Cobalamine $\Rightarrow$ Vitamin B₁₂.

Step 3: Conclusion.

Therefore, Vitamin B₁ is called Thiamine.

Final Answer:

Vitamin B₁ is Thiamine.

Quick Tip

Deficiency of Vitamin B₁ causes Beri-Beri, a disease affecting nerves and heart.

Q8. Which instrument is used for measuring body temperature?

(A) Thermometer

(B) Lactometer

(C) Barometer

(D) Hydrometer

Correct Answer: (A) Thermometer

Solution:

Step 1: Identifying instruments.

- Thermometer $\Rightarrow$ Measures body or environmental temperature. - Lactometer $\Rightarrow$ Measures purity of milk. - Barometer $\Rightarrow$ Measures atmospheric pressure. - Hydrometer $\Rightarrow$ Measures density of liquids.

Step 2: Conclusion.

Since the question asks about measuring body temperature, the correct instrument is thermometer.

Final Answer:

Body temperature is measured with Thermometer.

Quick Tip

Clinical thermometers commonly measure 35°C – 42°C . Digital thermometers are widely used today.

Q9. How many calories does one gram of protein give?

- (A) 9 calorie
- (B) 8 calorie
- (C) 6 calorie
- (D) 4 calorie

Correct Answer: (D) 4 calorie

Solution:

Step 1: Nutrient calorie values.

- 1 gram carbohydrate = 4 calories. - 1 gram protein = 4 calories. - 1 gram fat = 9 calories.

Step 2: Application.

Since the question asks about protein, the energy value is 4 calories per gram.

Final Answer:

1 gram protein gives 4 calories.

Quick Tip

Carbohydrates and proteins provide 4 calories/gram; fats provide 9 calories/gram.

Q10. Which disease is caused due to deficiency of iron elements?

- (A) Beri-Beri
- (B) Anaemia
- (C) Scurvy
- (D) Rickets

Correct Answer: (B) Anaemia

Solution:

Step 1: Role of iron.

Iron is essential for hemoglobin formation in red blood cells, which carries oxygen.

Step 2: Diseases related to deficiency.

- Beri-Beri $\Rightarrow$ Caused by deficiency of Vitamin B₁. - Scurvy $\Rightarrow$ Caused by deficiency of Vitamin C. - Rickets $\Rightarrow$ Caused by deficiency of Vitamin D. - Anaemia $\Rightarrow$ Caused by deficiency of iron.

Step 3: Conclusion.

Thus, iron deficiency leads to anaemia.

Final Answer:

Anaemia is caused by deficiency of iron.

Quick Tip

Green leafy vegetables, jaggery, and red meat are rich sources of iron.

Q11. How many ribs are there in the human body?

- (A) 20

- (B) 22
- (C) 24
- (D) 28

Correct Answer: (C) 24

Solution:

Step 1: Understanding rib cage.

The rib cage protects lungs and heart. Ribs are attached to the vertebral column at the back and mostly to the sternum at the front.

Step 2: Rib count.

Humans have 12 pairs of ribs = 24 ribs.

Final Answer:

Humans have 24 ribs.

Quick Tip

There are 12 pairs of ribs: 7 true ribs, 3 false ribs, and 2 floating ribs.

Q12. World Toilet Day is celebrated on –

- (A) 19th November
- (B) 19th September
- (C) 19th August
- (D) 19th June

Correct Answer: (A) 19th November

Solution:

Step 1: Importance.

World Toilet Day is an official United Nations international observance day to spread awareness about sanitation and safe toilets.

Step 2: Exact date.

It is celebrated every year on 19th November since 2013 when UN recognized it formally.

Step 3: Elimination.

Other dates (August, September, June) are not correct for this observance.

Final Answer:

World Toilet Day is on 19th November.

Quick Tip

World Toilet Day raises awareness about sanitation, aiming for global access to toilets by 2030.

Q13. Woollen fibre is obtained from –

- (A) Animal
- (B) Vegetable
- (C) Chemical
- (D) None of these

Correct Answer: (A) Animal

Solution:**Step 1: Source of wool.**

Wool is a natural animal fibre obtained from the hair of animals like sheep, goat, camel, yak, etc.

Step 2: Elimination of wrong options.

- Vegetable fibres $\Rightarrow$ Cotton, jute. - Chemical fibres $\Rightarrow$ Nylon, polyester. - None of these $\Rightarrow$ Incorrect.

Final Answer:

Woollen fibre is obtained from animals.

Quick Tip

Animal fibres include wool and silk; vegetable fibres include cotton and jute.

Q14. Jaggery is a good source of which nutrient?

- (A) Protein
- (B) Sodium
- (C) Iron salt
- (D) Vitamin D

Correct Answer: (C) Iron salt

Solution:

Step 1: Nutrient composition of jaggery.

Jaggery is unrefined sugar rich in minerals, especially iron.

Step 2: Health benefit.

Because of its iron content, jaggery is useful in preventing iron-deficiency anaemia.

Step 3: Elimination.

- Protein $\Rightarrow$ Found in pulses. - Sodium $\Rightarrow$ Found in salt. - Vitamin D $\Rightarrow$ Synthesized in skin by sunlight.

Final Answer:

Jaggery is a good source of iron salt.

Quick Tip

Eating jaggery after meals helps improve digestion and prevents anaemia.

Q15. ATS or Tet-Vac injection is given for prevention of which disease?

- (A) Tetanus

- (B) Diphtheria
- (C) Cholera
- (D) Tuberculosis

Correct Answer: (A) Tetanus

Solution:

Step 1: ATS and Tet-Vac.

ATS = Anti-Tetanus Serum. Tet-Vac is a tetanus vaccine.

Step 2: Disease prevention.

Both are given after injuries, cuts, or wounds to prevent tetanus infection caused by *Clostridium tetani*.

Step 3: Elimination.

- Diphtheria ⇒ DPT vaccine. - Cholera ⇒ Oral cholera vaccine. - Tuberculosis ⇒ BCG vaccine.

Final Answer:

ATS/Tet-Vac is for prevention of Tetanus.

Quick Tip

Always take a tetanus injection after deep cuts or injuries to avoid infection.

Q16. Scientific name of red medicine is –

- (A) Acetic acid
- (B) Potassium permanganate
- (C) Potassium sulphate
- (D) Sodium chloride

Correct Answer: (B) Potassium permanganate

Solution:

Step 1: What is red medicine?

In common usage, “red medicine” refers to a disinfectant used for wounds.

Step 2: Scientific name.

The chemical used is Potassium permanganate (KMnO_4), which has a deep purple-red colour in solution.

Step 3: Elimination.

- Acetic acid $\Rightarrow$ Vinegar. - Sodium chloride $\Rightarrow$ Table salt. - Potassium sulphate $\Rightarrow$ Fertilizer.

Final Answer:

Red medicine = Potassium permanganate.

Quick Tip

Potassium permanganate is widely used as an antiseptic and disinfectant.

Q17. What does a green traffic light indicate?

- (A) Ready
- (B) Stop
- (C) Go
- (D) None of these

Correct Answer: (C) Go

Solution:**Step 1: Traffic light colours.**

- Red $\Rightarrow$ Stop. - Yellow (Amber) $\Rightarrow$ Get ready. - Green $\Rightarrow$ Go.

Step 2: Application.

Thus, green light indicates permission to proceed.

Final Answer:

Green traffic light means Go.

Quick Tip

Always follow traffic signals to avoid accidents and ensure road safety.

Q18. How many bones are there in the human body?

- (A) 300
- (B) 306
- (C) 210
- (D) 206

Correct Answer: (D) 206

Solution:

Step 1: Bone count at birth.

Newborns have about 300 bones.

Step 2: Bone fusion.

As a child grows, many bones fuse (e.g., skull, spine, pelvis).

Step 3: Adult skeleton.

An adult human body has 206 bones.

Final Answer:

The human body has 206 bones.

Quick Tip

At birth: 300 bones. In adults: 206 bones after fusion.

Q19. Typhoid disease is spread by –

- (A) Salmonella typhi
- (B) Anopheles

(C) Clostridium

(D) Bacillus

Correct Answer: (A) *Salmonella typhi*

Solution:

Step 1: Cause of typhoid.

Typhoid is a bacterial disease caused by *Salmonella typhi*.

Step 2: Mode of transmission.

It spreads through contaminated food and water, not by mosquitoes.

Step 3: Elimination.

- Anopheles $\Rightarrow$ Malaria. - Clostridium $\Rightarrow$ Tetanus, botulism. - Bacillus $\Rightarrow$ Anthrax (B. anthracis).

Final Answer:

Typhoid is caused by *Salmonella typhi*.

Quick Tip

Typhoid is water-borne. Hygiene and vaccination are the best preventive measures.

Q20. Which gas is produced by combustion of organic substances?

(A) Ammonia

(B) Carbon dioxide

(C) Oxygen

(D) Nitrogen

Correct Answer: (B) Carbon dioxide

Solution:

Step 1: Composition of organic substances.

Organic substances mainly contain carbon (C), hydrogen (H), and oxygen (O).

Step 2: Combustion process.

When an organic substance (like wood, coal, petrol, food, etc.) burns in the presence of oxygen, the chemical reaction is:

**Step 3: Identifying the gas.**

The major gas produced is carbon dioxide (CO₂), along with water vapour.

Step 4: Elimination of wrong options.

- Ammonia $\Rightarrow$ Not formed in combustion. - Oxygen $\Rightarrow$ Used during combustion, not produced. - Nitrogen $\Rightarrow$ Present in air, but not produced in burning.

Final Answer:

Combustion of organic substances produces Carbon dioxide.

Quick Tip

Always remember: Combustion of carbon-based fuels releases CO₂, a greenhouse gas responsible for global warming.

Q21. Write any two objectives of cooking food.

Solution:**Step 1: Interpret the task.**

The question asks for *two* aims of cooking, so we will select the most fundamental ones.

Step 2: Recall the major purposes of cooking.

- (i) Safety $\Rightarrow$ *destroy harmful microorganisms and toxins.*
- (ii) Palatability $\Rightarrow$ *improve taste, aroma, colour, and texture.*
- (iii) Digestibility $\Rightarrow$ *softens food; breaks down complex nutrients (e.g., starch gelatinization).*
- (iv) Variety and acceptability $\Rightarrow$ *enables many preparations.*
- (v) Preservation $\Rightarrow$ *extends shelf life for some foods.*

Step 3: Choose the best two and justify.

We choose (a) *Safety* and (b) *Digestibility/Palatability* because they are universal to most foods and most frequently tested in exams.

Final Answer:

(1) To make food safe by destroying microbes; (2) To improve digestibility and palatability by softening

Quick Tip

Remember “**S-D-P**”: Safety, Digestibility, Palatability—these three cover almost every exam phrasing about objectives of cooking.

Q22. Write four measures for conservation of environment.

Solution:

Step 1: Organize by domains.

Think of *air, water, soil, biodiversity*. Pick one strong action for each.

Step 2: List actionable measures.

(1) **Afforestation/Tree plantation** $\Rightarrow$ *increases greencover, absorbs CO_2 .*

(2) **Water conservation** $\Rightarrow$ *rainwater harvesting, fixing leaks, preventing water pollution.*

(3) **3R waste management**

$\Rightarrow$ *Reduce–Reuse–Recycle; segregate biodegradable/non – biodegradable; composting.*

(4) **Pollution control and clean energy**

$\Rightarrow$ *public transport, car – pooling, non – polluting fuels, maintaining vehicles.*

(Optional extras for revision: ban single-use plastic; protect wildlife; soil conservation via contour ploughing.)

Final Answer:

Tree plantation; Water conservation (incl. RWH); 3R waste management with segregation; Control of

Quick Tip

Use the mnemonic **T-W-W-P**: Trees, Water saving, Waste 3Rs, Pollution control.

Q23. What is the traffic rule?

Solution:

Step 1: Define.

Traffic rules are the legally prescribed regulations that ensure safe and orderly movement of vehicles and pedestrians on roads.

Step 2: Core elements (examples you can cite).

- (i) Obey signals: Red–Stop, Yellow–Ready, Green–Go.
- (ii) Wear seat-belt/helmet; no mobile phone while driving.
- (iii) Follow speed limits, lane discipline, and no-overtaking zones.
- (iv) Give way to pedestrians at zebra crossings and ambulances.
- (v) Carry valid documents; avoid drunken driving.

Final Answer:

Traffic rules are regulations for road users that must be followed (signals, speed limits, helmets/seat-belt)

Quick Tip

For short answers, define in one line *and* add 2–3 concrete examples (signals, speed, helmet) to fetch full marks.

Q24. What is an Ideal Kitchen?

Solution:

Step 1: Define by the 3 Es.

An *Ideal Kitchen* ensures **E**fficiency, **E**rgonomics, and **E**nvironmental hygiene.

Step 2: Key features.

- (i) Proper ventilation and chimney; ample natural/artificial light.
- (ii) Safe layout with *work-triangle* (sink–stove–storage) and non-slip, easy-to-clean surfaces.
- (iii) Adequate water supply and drainage; covered waste bins; pest control.
- (iv) Organized storage at reachable heights; separate areas for raw/cooked food.
- (v) Fire safety: extinguisher/sand bucket; first-aid kit; electrical safety (earthing).

Final Answer:

A clean, well-ventilated, well-lit, and safely planned kitchen with efficient workflow (work-triangle), pr

Quick Tip

Write “**V–L–W–S–F**”: Ventilation, Lighting, Work-triangle, Storage sanitation, Fire/first-aid.

Q25. Write the symptoms of Sprain.

Solution:**Step 1: Understand the injury.**

A sprain is stretching/tearing of ligaments around a joint (commonly ankle, wrist, knee).

Step 2: Typical symptoms to state.

- (i) Sudden pain at the joint.
- (ii) Swelling (oedema) and tenderness on touch.
- (iii) Bruising/discolouration.
- (iv) Restricted or painful movement; stiffness.
- (v) Warmth around joint; sometimes a popping sound at injury.
- (vi) In moderate–severe cases, inability to bear weight/use the joint.

Final Answer:

Pain, swelling, tenderness, bruising, limited/painful movement (often with warmth) and—if severe—di

Quick Tip

First aid = **RICE**: Rest, Ice, Compression, Elevation; seek medical care if swelling/severe pain persists.

Q26. What is the utility of water in our life?

Solution:

Step 1: Biological utilities (inside the body).

- (i) Hydration and temperature regulation (sweating).
- (ii) Medium for metabolic reactions; transport of nutrients and oxygen via blood.
- (iii) Digestion and absorption; helps form saliva and gastric juices.
- (iv) Excretion of wastes through urine and perspiration.

Step 2: Daily-life and societal utilities.

- (v) Drinking, cooking, cleaning, and sanitation/hygiene.
- (vi) Agriculture and animal husbandry (irrigation, dairy).
- (vii) Industry and power generation; fire-fighting.
- (viii) Ecosystem services (rivers, lakes) and recreation.

Final Answer:

Water is essential for body functions (metabolism, transport, temperature control, excretion) and for dai

Quick Tip

For short answers, write “**B–H–A–I**”: Body functions, Household use, Agriculture, Industry/ecosystems.

Q27. What are the differences between dysentery and diarrhoea?

Solution:

Step 1: Define both conditions.

Dysentery ⇒

intestinal infection with inflammation of the colon; stools often contain blood and mucus with abdominal cramps

Diarrhoea ⇒

passage of frequent, loose or watery stools leading mainly to dehydration; inflammation may or may not be present

Step 2: Compare key features point-by-point.

(1) **Stool nature:** Dysentery

⇒ *small – volume stools with blood/mucus; Diarrhoea ⇒ large – volume watery stools.*

(2) **Pain & tenesmus:** Dysentery ⇒ *marked abdominal pain and tenesmus; Diarrhoea ⇒*

cramping may occur but tenesmus is uncommon.

(3) **Main danger:** Dysentery

⇒ *blood loss and colonic damage; Diarrhoea ⇒ dehydration and electrolyte loss.*

(4) **Common causes:** Dysentery ⇒ *Shigella/Entamoeba histolytica; Diarrhoea ⇒*

viruses (e.g., rota/noro), contaminated food/water, toxins.

(5) **Treatment focus:** Dysentery ⇒ *antimicrobials as indicated + fluids; Diarrhoea ⇒*

ORS/rehydration is primary, diet adjustment.

Step 3: Summarize the diagnostic clue.

Blood with mucus and severe straining

⇒ *think dysentery; profuse watery stools with dehydration ⇒ think diarrhoea.*

Final Answer:

Dysentery = bloody/mucus small stools with tenesmus (inflamed colon); Diarrhoea = frequent watery stools
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Quick Tip

Mnemonic: **Dysentery = “Bloody & Strain”, Diarrhoea = “Water & Drain (dehydration)”**. First aid in both: prompt ORS; seek medical help if blood, high fever, or persistent symptoms.

Q28. How many types of scissors are there? What is its use?

Solution:

Step 1: Group by sewing use.

In home science/tailoring we mainly use **three** types of scissors.

Step 2: Name each type and write the specific use.

(1) Dressmaker's shears / Fabric-cutting shears

⇒ *long blades and bent handle; used for cutting fabric and patterns smoothly on the table.*

(2) Trimming/Embroidery scissors

⇒ *small, sharp, pointed; used to trim threads, notch corners, cut small curves and delicate work.*

(3) Pinking shears

⇒ *zig – zag blades; used to finish raw edges to reduce fraying and for decorative edging.*

Step 3: Practical note.

Keep separate scissors for fabric and paper; paper dulls fabric shears quickly.

Final Answer:

Mainly 3 types: (i) Dressmaker's shears — cutting fabric; (ii) Trimming/Embroidery — threads & fine

Quick Tip

Remember **C–T–P**: Cut fabric (shears), Trim threads (small scissors), Pink edges (pinking shears). Keep them sharp and used only for their purpose.

Q29. How many types of Driving Licence are there?

Solution:

Step 1: Basic classification used in road-safety courses.

There are **two primary** licences: **Learner's Licence (LL)** and **Permanent Driving Licence (DL)**.

Step 2: Sub-classification of Permanent DL (for clarity).

Permanent DL commonly has categories such as **Non-Transport** (e.g., LMV, two-wheeler) and **Transport/Commercial** (goods/passenger). An **International Driving Permit (IDP)** is an additional authorization for driving abroad.

Step 3: Present concise exam answer.

State the count as two, with brief mention of the common categories under the permanent licence.

Final Answer:

Two primary types — Learner's Licence and Permanent Driving Licence (which is further Non-Transport and Transport).

Quick Tip

Write “**LL** ⇒ *training stage*; **DL** ⇒ *full licence (non-transport/transport)*.” If asked for categories, list *LMV, MCWG, HMV* etc.

Q30. What kind of diet should be given to a patient of Typhoid?

Solution:

Step 1: Nutrition goal.

Typhoid affects intestine and causes fever; aim is **easy digestion, adequate calories/fluids, and gut rest**.

Step 2: During high fever.

Give **fluid or soft liquid diet**: ORS, boiled water, rice water, thin dal water, clear soups, tender coconut water, diluted fruit juices; small frequent sips.

Step 3: As fever subsides (convalescence).

Soft, low-fibre, easily digestible foods: khichdi, suji/semolina porridge, custard, curd, mashed potatoes, soft rice, soft chapati with dal; add **adequate proteins** (milk/curd/paneer/eggs as tolerated).

Step 4: What to avoid.

Avoid spicy, fried, very oily foods; coarse/raw salads; very high-fibre items; carbonated drinks; unhygienic street food. Maintain strict food and water hygiene.

Step 5: Feeding pattern.

Small frequent meals 5–6 times/day; plenty of fluids; maintain electrolyte balance; continue ORS if loose stools present.

Final Answer:

Typhoid diet = fluid/soft, low-fibre, easily digestible, energy- and protein-adequate with small frequent

Quick Tip

Think **F–S–L**: Fluids first, Soft low-fibre as tolerated, then Light normal diet. Hygiene is critical to prevent relapse.

Q31. Write the advantages of Saving.

Solution:

Step 1: State the core idea.

Saving means setting aside a part of present income for future use.

Step 2: List key advantages.

- (1) **Emergency cushion** $\Rightarrow$ *meets medical or job – loss shocks without costly borrowing.*
- (2) **Goal achievement** $\Rightarrow$ *education, home, vehicle, travel.*
- (3) **Investment & wealth creation** $\Rightarrow$ *savings can be invested to earn returns.*
- (4) **Reduced debt/interest burden** $\Rightarrow$ *pay from savings instead of loans.*
- (5) **Retirement security** $\Rightarrow$ *funds for old age when income falls.*
- (6) **Improved creditworthiness & peace of mind** $\Rightarrow$ *financial stability and confidence.*

Final Answer:

Savings provide security for emergencies, help reach financial goals, enable investment and retirement

Quick Tip

Use the rule “**Pay Yourself First**”: save a fixed

Q32. (A) What is meant by fracture? Describe the types and treatment of fracture.

Solution : Fracture — Meaning, Types, Treatment

Step 1: Meaning/Definition.

A **fracture** is a break in the continuity of a bone (partial or complete) due to trauma, stress, or disease.

Step 2: Types of Fracture (exam-oriented classification with short cues).

- (1) **Simple/Closed** ⇒ *skin intact; bone broken inside.*
- (2) **Compound/Open** ⇒ *bone end pierces skin; wound communicates with fracture.*
- (3) **Incomplete (Greenstick)** ⇒ *bend + partial crack; common in children.*
- (4) **Comminuted** ⇒ *bone shattered into multiple fragments.*
- (5) **Impacted** ⇒ *one fragment driven into another.*
- (6) **Depressed** ⇒ *bone pushed inward (e.g., skull).*
- (7) **Complicated** ⇒ *associated injury to nerves/vessels/viscera.*
- (8) **Pathological / Stress** ⇒ *due to weak bone (disease) or repetitive stress.*

Step 3: Principles of Treatment (First Aid + Definitive).

(A) First Aid at the scene — do not attempt to set the bone.

- 1. **Immobilize** the limb with a **splint** (fix the joint above and below).
- 2. **Control bleeding** (pressure bandage) and cover open wounds with sterile dressing.
- 3. **Relieve pain and shock**: keep patient warm; reassure; avoid unnecessary movement.
- 4. **Elevate** injured part if possible; check distal pulse, movement, sensation.
- 5. **Transport** gently to hospital.

(B) Definitive medical care — aims: **Reduction, Immobilization, Rehabilitation.**

- 1. **Reduction (align fragments): Closed reduction** (manipulation under analgesia) or **Open reduction** (surgery).
- 2. **Immobilization**: plaster cast/splint; traction; **internal fixation** (plates, screws, rods) or **external fixator**.
- 3. **Rehabilitation**: early but safe mobilization, physiotherapy, muscle-strengthening, joint-range exercises.
- 4. **Supportive care**: analgesics, anti-tetanus for open wounds, antibiotics when indicated,

adequate **nutrition** (protein, calcium, vitamin D).

5. **Watch for complications:** compartment syndrome, infection (open), non-union/mal-union, nerve/vascular injury, DVT.

Final Answer (A):

Fracture = break in bone. Major types: simple, compound, greenstick, comminuted, impacted, depressed

Quick Tip

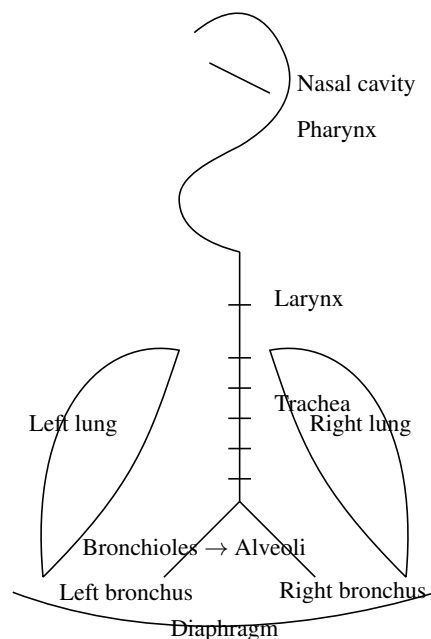
Remember the treatment triad: **R-I-R** = Reduction, Immobilization, Rehabilitation. In first aid, **splint as found**, cover wounds, and never try to “set” the bone at the scene.

OR

Draw a labelled diagram of human respiratory system. Describe the utility of respiration process in human life.

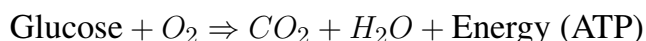
Solution: Respiratory System — Diagram & Utility of Respiration

Step 1: Labelled diagram.



Step 2: Utility/Importance of Respiration in human life (clear, pointwise).

(1) **Energy for life:** Supplies O_2 for **aerobic cellular respiration** to produce ATP (energy) for all body functions — movement, growth, repair.



(2) **Removal of CO_2 :** Expels carbon dioxide, preventing its toxic accumulation.

(3) **Acid–base balance:** By regulating CO_2 , respiration helps maintain blood pH (with kidneys).

(4) **Thermoregulation & water balance:** Heat and water vapour are lost via exhalation, aiding temperature control.

(5) **Voice production & speech:** Airflow through larynx vibrates vocal cords; articulation forms speech.

(6) **Olfaction and filtration:** Nasal cavity warms, moistens, filters dust/pathogens; smell helps safety (e.g., smoke, gas).

(7) **Immunity & protection:** Mucus + cilia (*mucociliary escalator*) trap and clear microbes/particles.

(8) **Supports activity and cognition:** Adequate oxygenation is vital for brain function, stamina, and recovery.

Final Answer:

Respiration enables gas exchange (O_2 in, CO_2 out) to generate ATP, maintain pH/temperature, permit s

Quick Tip

For “utility” questions, think **E–R–B–V–S–F**: Energy (ATP), Removal of CO_2 , Blood pH, Voice, Smell & safety, Filtering/defence.

Q33. What do you understand by food poisoning? Write about the factors causing food poisoning.

Solution:

Step 1: Define food poisoning.

Food poisoning is an illness caused by eating contaminated food or drink. The contamination can be due to bacteria, viruses, toxins, or chemicals. It typically results in vomiting, diarrhoea, abdominal pain, and fever.

Step 2: Factors causing food poisoning.

- (1) **Biological causes:** - Bacteria (e.g., *Salmonella*, *E. coli*, *Staphylococcus*) - Viruses (e.g., Norovirus, Hepatitis A) - Parasites (e.g., Giardia, Amoeba)
- (2) **Chemical causes:** - Pesticide residues in fruits/vegetables - Heavy metals in water (lead, mercury) - Contaminated food containers (plastic/metal leaching)
- (3) **Physical causes:** - Dirty water, unwashed hands, or insects contaminating food - Improper food storage (e.g., keeping milk unrefrigerated) - Eating stale food or food past expiry date

Step 3: Preventive measures (extra point).

- Always wash hands before cooking/eating - Store food properly at correct temperatures - Cook food thoroughly; avoid stale or unhygienic food - Drink safe, clean water

Final Answer:

Food poisoning is illness from contaminated food. Main causes are biological (bacteria, viruses), chemical

Quick Tip

Remember the 3 categories of causes: **Biological, Chemical, Physical**. Always write 1–2 examples for each to score full marks.

Q33. (OR) What is sewing kit? List the items of a sewing kit and also write use of each.

Solution:

Step 1: Define sewing kit.

A sewing kit is a small collection of basic tools used for stitching, repairing, and maintaining clothes and fabrics. It is portable and essential in every household.

Step 2: List of items and their uses.

- (1) **Needles:** Different sizes; used for hand sewing, embroidery, or hemming.
- (2) **Threads:** Cotton, polyester, or silk threads; used to stitch fabrics of different types and colours.
- (3) **Scissors:** Dressmaker's shears for cutting fabric; small scissors for trimming threads.
- (4) **Measuring tape:** Used to measure body dimensions and cloth length/width.
- (5) **Thimble:** Protects fingers while pushing a needle through thick cloth.
- (6) **Pins and Pin-cushion:** Pins hold cloth pieces together before sewing; pin-cushion stores pins safely.
- (7) **Seam ripper:** Used to remove wrong stitches.
- (8) **Chalk/Marking pencil:** For marking outlines and patterns on fabric.
- (9) **Buttons, hooks, and zips:** Fastening accessories for garments.

Step 3: Summarize.

Together, these items make sewing easy, accurate, and safe.

Final Answer:

A sewing kit contains needles, threads, scissors, tape, thimble, pins, seam ripper, chalk, and buttons—e

Quick Tip

Use the mnemonic “**N-T-S-M-T-P-S-C-B**” (Needle, Thread, Scissor, Measuring tape, Thimble, Pins, Seam ripper, Chalk, Buttons) to recall items quickly.

Q34. What do you mean by Environment Pollution? Describe the effect of pollution on human life.

Solution:

Step 1: Define Environmental Pollution.

Environmental Pollution is the undesirable change in the physical, chemical, or biological characteristics of air, water, soil, or surroundings due to human or natural activities. It makes the environment harmful for living beings.

Step 2: Types of pollution (brief).

- **Air Pollution:** Release of smoke, gases, and dust into the atmosphere from industries, vehicles, and burning of fuels. - **Water Pollution:** Contamination of rivers, lakes, and groundwater by sewage, chemicals, and plastics. - **Soil Pollution:** Degradation of land due to pesticides, plastics, and industrial waste. - **Noise Pollution:** Loud sounds from traffic, industries, and loudspeakers causing disturbance.

Step 3: Effects of pollution on human life.

(1) **Health effects:** - Air pollution causes respiratory problems (asthma, bronchitis, lung cancer). - Water pollution leads to diseases like cholera, typhoid, and diarrhoea. - Soil pollution contaminates food crops, leading to poisoning. - Noise pollution causes stress, hearing loss, and hypertension.

(2) **Economic effects:** - Increased healthcare costs due to pollution-related illnesses. - Reduced productivity due to sick workers.

(3) **Social and psychological effects:** - Stress and reduced quality of life. - Shortened life expectancy in heavily polluted areas.

Step 4: Conclusion.

Pollution directly affects human survival, well-being, and development. Preventive measures like afforestation, waste management, clean fuels, and public awareness are necessary.

Final Answer:

Environmental pollution is the contamination of air, water, soil, or surroundings. It causes serious effects on the environment and human health.

Quick Tip

For exams, always define pollution first, mention 3–4 types, then explain health, economic, and social impacts on human life.