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World of Education & Career

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Prepared by: Team Khilare | Page - 0

Use e-Magazine, Save paper, Save Trees

Q: how many UT's share border with Punjab

Answer: 2

Hint: 2 UT's Chandigarh and J&K share border with punjab, J&K New UT

Q: How many states share border with Punjab

Answer: 3

Hint: Himachal, Rajasthan & Haryana share border with punjab

Q: Which country share border with punjab

Answer: Pakistan

Hint: Punjab shares international border with Pakistan

Q: Where is the Secretariat of Punjab situated

Answer: Chanidgarh

Hint: Secretariate of Punjab is situated in Chandigarh

Q: Who was the first Governor of Punjab

Answer: Chandu Lal Trivedi

Hint: Chandu Lal Trivedi was first Givornor of Punajb

Q: Who was the first Chief Minister of Punjab

Answer: Dr. Gopi Chand Bhargava

Hint: Dr. Gopi Chand Bhargava was First CM of Punjab, he was CM at the tme of Independence

Q: Who was First Rajpramukh of PEPSU

Answer: Maharaja Yadvindra Singh

Hint: Maharaja yadvindra Singh was first Rajpramukh PEPSU

Q: Who was First CM of PEPSU

Answer: Gian Singh Rarewal

Hint: Gian Singh Rarewala was the First CM of PEPSU

Q: Who was the First speaker of Punjab Legislative Assembly?

Answer: S Kapur Singh

Hint: S. Kapur Singh was first speaker of Punjab Legislative Assembly

Q: Who was the First Lokpal of Punjab

Answer: S.S. Sodhi

Hint: Justice Savinder Singh Sodhi (often referred to as S.S. Sodhi) was The first Lokpal of Punjab

Q: What was full form of PEPSU

Answer: Patiala and East Punjab States Union

Hint: Full form of PEPSU is Patiala and East Punjab States Union

Q: Who was first women Chief Secretary fo Punjab

Answer: Vini Mahajan

Hint: Vini Mahajan, a 1987-batch IAS officer, became the first woman Chief Secretary of Punjab on June 26, 2020

Q: Who is Present Governor of Punjab

Answer: Gulab Chand Kataria

Hint: Gulab Chand Kataria is current Governor of Punjab

Q: Who is Leader of Opposition in Punjab

Answer: Pratap Singh Bajwa

Hint: Pratap Singh Bajwa is currently the leader of opposition in Punjab

Q: Who many Lok Saha and Rajya Sabha seats in Punjab

Answer: 13 & 7

Hint: Punjab has 13 Lok Sabha, 7 Rajya Sabha Seats and 117 unicameral Legislative seats

Q: Which of following is State animal of Punjab

Answer: Black Buck

Hint: Black Buck is State animal of Punjab its scientific name is Antelope cervicapra L.

Q: What is zoological name of the State bird of Punjab

Answer: Accipiter gentilis

Hint: Accipiter gentilis Goshawk (Baaz) is state Bird of Punjab

Q: Plantanista gangetica minor is zoological name of which of following

Answer: Indus River Dolphin

Hint: Punjab's State Aquatic Animal is Indus River Dolphin Zoological name is Plantanista gangetica minor

Q: What is zoological name of State Tree of Punjab

Answer: Dalbergia juvenile sissoo

Hint: Punjab's State Tree is Shisham Zoological name is Dalbergia juvenile sissoo

Q: When was Punjab trifurcated leading to the formation of Haryana and Himachal Pradesh as separate states?

Answer: 01-Nov-66

Hint: Punjab trifurcated on 1st November 1966 leading to the formation of Haryana and Himachal Pradesh as separate states

Q: Which bacterial disease affects the lungs?

Answer: Tuberculosis

Hint: Tuberculosis is caused by Mycobacterium tuberculosis. It mainly affects the lungs and spreads through air droplets.

Q: Which of the following is a viral disease?

Answer: Polio

Hint: Polio is caused by a virus and spreads through contaminated water. Viruses require a host cell to reproduce.

Q: Which disease is caused by a virus transmitted by mosquitoes?

Answer: Dengue

Hint: Dengue is caused by a virus transmitted by Aedes mosquitoes. It leads to high fever and body pain.

Q: Which fungus grows on stale bread?

Answer: Rhizopus

Hint: Rhizopus is commonly known as bread mould. It grows in warm and moist conditions.

Q: Amoeba moves using:

Answer: Pseudopodia

Hint: Amoeba uses pseudopodia for movement and capturing food. It is a unicellular protozoan.

Q: Protozoa are mostly:

Answer: Unicellular

Hint: Protozoa are single-celled eukaryotic organisms. They are mostly found in water.

Q: Paramecium moves with the help of:

Answer: Cilia

Hint: Paramecium uses tiny hair-like structures called cilia. They help in movement and feeding.

Q: Which bacteria fix atmospheric nitrogen in legume plants?

Answer: Rhizobium

Hint: Rhizobium lives in root nodules of legumes. It converts atmospheric nitrogen into usable forms for plants.

Q: Antibiotics are mainly effective against:

Answer: Bacteria

Hint: Antibiotics kill or inhibit bacterial growth. They are not effective against viral infections.

Q: Vaccines work by producing:

Answer: Toxins

Hint: Vaccines stimulate the immune system to produce antibodies. These antibodies provide protection against future infections.

Q: Which of the following is a characteristic of Bacteria?

Answer: They reproduce rapidly

Hint: Most microorganisms reproduce rapidly under suitable conditions.

Q: Which microorganism causes malaria?

Answer: Plasmodium

Hint: Malaria is caused by Plasmodium, a protozoan.

Q: Which microorganism is used in bread making?

Answer: Yeast

Hint: Yeast produces carbon dioxide during fermentation, making bread soft.

Q: Which disease is caused by bacteria?

Answer: Tuberculosis

Hint: Tuberculosis is caused by the bacterium *Mycobacterium tuberculosis*.

Q: Who discovered penicillin?

Answer: Alexander Fleming

Hint: Alexander Fleming discovered penicillin in 1928.

Q: Which method preserves milk by heating and cooling?

Answer: Pasteurization

Hint: Pasteurization kills harmful microbes by controlled heating.

Q: Cholera is caused by:

Answer: Bacteria

Hint: Cholera is caused by the bacterium *Vibrio cholerae*.

Q: Which microorganism reproduces by budding?

Answer: Yeast

Hint: Yeast reproduces asexually by budding.

Q: Food preservation by salt prevents growth of:

Answer: Microorganisms

Hint: Salt removes moisture and prevents microbial growth.

Q: Which disease spreads through contaminated water?

Answer: Cholera

Hint: Cholera spreads through contaminated water.

Q: Which microorganism is used in the production of alcohol?

Answer: Yeast

Hint: Yeast (*Saccharomyces*) ferments sugars to produce alcohol.

Q: Which microorganism is used in the production of antibiotics?

Answer: Fungi

Hint: *Penicillium* fungi produce penicillin, an antibiotic.

Q: Which microorganism causes common cold?

Answer: Virus

Hint: Rhinovirus causes common cold.

Q: Which microorganism is used in vaccines?

Answer: Both

Hint: Weakened or killed bacteria/viruses are used in vaccines.

Q: Which microorganism is used in sewage treatment?

Answer: Bacteria

Hint: Bacteria decompose organic matter in sewage treatment.

Q: Which microorganism is used in production of vinegar?

Answer: Acetobacter

Hint: Acetobacter bacteria convert alcohol to acetic acid (vinegar).

Q: Which microorganism causes amoebic dysentery?

Answer: Protozoa

Hint: Entamoeba histolytica protozoa cause amoebic dysentery.

Q: Which microorganism causes measles?

Answer: Virus

Hint: Measles virus causes measles.

Q: Which microorganism causes hepatitis B?

Answer: Virus

Hint: Hepatitis B virus causes liver infection.

Q: Which microorganism causes smallpox?

Answer: Virus

Hint: Variola virus causes smallpox.

Q: Which bacterium is used in probiotics for gut health?

Answer: Lactobacillus

Q: Which bacterium is used in the production of buttermilk?

Answer: Lactobacillus

Hint: Lactobacillus ferments milk to produce buttermilk.

Q: Which microorganism causes influenza?

Answer: Virus

Q: Which microorganism causes typhoid?

Answer: Bacteria

Hint: Salmonella typhi bacteria cause typhoid fever.

Q: Which microorganism causes leprosy?

Answer: Bacteria

Hint: Mycobacterium leprae bacteria cause leprosy.

Q: Which microorganism causes whooping cough?

Answer: Bacteria

Hint: Bordetella pertussis bacteria cause whooping cough.

Q: Which microorganism is used in beer production?

Answer: Yeast

Hint: Yeast ferments sugars to produce alcohol in beer.

Q: Which microorganism is used in idli fermentation?

Answer: Lactobacillus

Hint: Lactic acid bacteria ferment rice and lentils for idli batter.

Q: When a stationary bus starts suddenly, passengers tend to fall backwards. This is due to:

Answer: Inertia of rest

Hint: The lower body moves with the bus, but the upper body tries to remain at rest.

Q: If the mass of a body is doubled while the force remains constant, the acceleration will be:

Answer: Halved

Hint: Since  $F=ma$ , if  $m$  is doubled,  $a$  must be halved to keep  $F$  the same.

Q: The momentum of an object at rest is:

Answer: Zero

Hint: Momentum ( $p=mv$ ) is zero because velocity ( $v$ ) is zero.

Q: A fielder catching a ball is an application of which law?

Answer: Newton's 2nd Law

Hint: It relates to the rate of change of momentum and the force applied.

Q: Balanced forces acting on a body can change its:

Answer: Shape

Hint: Balanced forces don't change motion, but they can deform (change the shape of) an object.

Q: Rocket propulsion works on the principle of conservation of:

Answer: Linear Momentum

Hint: The backward momentum of escaping gases equals the forward momentum of the rocket.

Q: If a force acts on a body, it must change its:

Answer: State of motion

Hint: An unbalanced force causes a change in the state of rest or uniform motion.

Q: An unbalanced force acting on an object always produces:

Answer: Acceleration

Hint: According to the 2nd law, a net force results in a change in velocity (acceleration).

Q: Qualitative definition of force is given by:

Answer: Newton's 1st Law

Hint: The 1st Law defines what force does (changes state), while the 2nd Law quantifies it.

Q: Which has more inertia, a rubber ball or a stone of the same size?

Answer: Stone

Hint: Inertia depends on mass; a stone is denser and heavier than a rubber ball.

Q: In a tug-of-war, the winning team pulls with a force:

Answer: Greater than friction

Hint: To move the opponent, the net external force must overcome the frictional force.

Q: The action-reaction forces mentioned in the 3rd law:

Answer: Act on different bodies

Hint: They occur in pairs but always on two different interacting objects.

Q: When rowing a boat, the rower pushes the water backward to move forward. This is:

Answer: Newton's 3rd Law

Hint: The action is pushing water back; the reaction is the water pushing the boat forward.

Q: A book lying on a table stays there because of:

Answer: Balanced forces

Hint: The downward weight is balanced by the upward normal force from the table.

Q: The SI unit of momentum is:

Answer:

Hint: Momentum is mass (kg) times velocity (m/s).

Q: Friction always acts in a direction \_\_\_\_\_ to the motion.

Answer: Opposite

Hint: Friction is a resistive force that opposes relative motion.

Q: Can a body have a constant speed but a changing velocity?

Answer: Yes, in circular motion

Hint: In a circle, speed is constant but direction (and thus velocity) changes constantly.

Q: A body moves from A to B and then back to A. What is its total displacement?

Answer: Zero

Hint: Since the starting and ending points are the same, the net change in position is zero.

Q: Which of the following is true for a body moving with uniform velocity?

Answer: All of these

Hint: Uniform velocity implies both constant speed and a constant direction, which means no acceleration.

Q: If an object moves along a straight path, the magnitude of displacement is equal to:

Answer: Distance only if no turn

Hint: Displacement and distance are equal only when the object moves in a single direction without turning back.

Q: A displacement-time graph that curves upward (increasing slope) indicates:

Answer: Increasing velocity

Hint: The slope of a displacement-time graph is velocity; an increasing slope means velocity is rising.

Q: If a body's velocity is decreasing with time, its acceleration is:

Answer: Negative

Hint: Negative acceleration is also known as retardation or deceleration.

Q: The speed of a car is measured by which instrument?

Answer: Speedometer

Hint: The speedometer shows instantaneous speed, while the odometer measures total distance.

Q: The physical quantity that has both magnitude and direction is called:

Answer: Vector

Hint: Vector: These quantities are incomplete unless you specify "how much" and "which way." For example, saying "I drove at 60 km/h" is just a speed (scalar), but saying "I drove at 60 km/h towards the North" is a velocity (vector)

Q: A body moving in a circle with constant speed has a:

Answer: Changing velocity

Hint: Even if speed is constant, the direction changes at every point, so velocity changes.

Q: What is the displacement of a satellite orbiting the Earth in one complete revolution?

Answer: Zero

Hint: It returns to its starting point, so the net change in position is zero.

Q: If the velocity-time graph of a body is a straight line passing through the origin, it has:

Answer: Uniform acceleration

Hint: A linear increase in velocity over time represents a constant rate of change (acceleration).

Q: In which case can the magnitude of average velocity be equal to average speed?

Answer: Straight line motion

Hint: When moving in a straight line without reversing, distance equals displacement.

Q: When a body is dropped from a height, its initial velocity ( $u$ ) is taken as:

Answer: Zero

Hint: An object starting from rest or being dropped begins with no initial speed.

Q: A ball is thrown up and reaches the top. What is the direction of its acceleration at the top?

Answer: Downwards

Hint: Gravity ( $g$ ) acts downwards on the ball at all times, even when it is momentarily at rest at the peak.

Q: Which of the following is an example of non-uniform motion?

Answer: Train starting from station

Hint: A train starting from a station changes its speed over time, making it non-uniform.

Q: The rate of change of displacement is known as:

Answer: Velocity

Hint: Velocity is defined as displacement divided by time.

Q: The slope of a velocity-time graph gives:

Answer: Speed

Hint: The change in velocity over the change in time is the definition of acceleration.

Q: If a body moves with a constant speed in a straight line, its velocity is:

Answer: Constant

Hint: Since neither speed nor direction changes, velocity remains constant.

Q: Non-uniform acceleration means:

Answer: Velocity changes unequally

Hint: It occurs when the rate of change of velocity is not constant over time.

Q: Which law describes the relationship between force and acceleration?

Answer: Newton's 2nd Law

Hint:  $F=ma$  shows that acceleration is produced when a force acts on a mass.

Q: Which graph shows uniform motion?

Answer: Straight line in distance-time graph

Hint: Uniform motion gives straight line slope.

Q: Displacement can be:

Answer: Both A & B

Q: A body moving in a circular path has:

Answer: Uniform velocity

Hint: Direction changes, so velocity changes.

Q: If velocity decreases, acceleration is:

Answer: Negative

Hint: Negative acceleration = retardation.

Q: Average speed is defined as:

Answer: Total displacement/total time

Hint: Speed relates to distance.

Q: Average velocity is defined as:

Answer: Total displacement/total time

Hint: Velocity relates to displacement.

Q: A body at rest has:

Answer: All of these

Hint: At rest, all motion parameters are zero.

Q: Non-uniform motion means:

Answer: Variable speed or velocity

Hint: Speed/velocity changes with time.

Q: Which of the following is not a unit of speed?

Answer:  $m/s^2$

Q: If a car covers 60 km in 2 hours, its average speed is:

Answer: 30 km/h

Hint: Speed = distance/time = 60/2.

Q: If a body moves 10 m east and then 10 m west, displacement is:

Answer: 0 m

Hint: Net displacement = final position - initial position.

Q: Which of the following is correct?

Answer: Velocity can be negative

Hint: Speed is scalar, velocity is vector.

Q: A particle is moving in a circular path of radius "r". The displacement after half a circle would be:

Answer: 2r

Hint: Displacement is the shortest distance between start and end points. In a half-circle, this is the diameter (2r).

Q: Which of the following can sometimes be zero for a moving body?

Answer: Average velocity

Hint: If a body returns to its starting point, its net displacement is zero, making average velocity zero.

Q: The slope of a Distance-Time graph represents:

Answer: Speed

Hint: The rate of change of distance with respect to time is speed.

Q: What does a horizontal line (parallel to the time axis) on a Distance-Time graph indicate?

Answer: Object at rest

Hint: If distance does not change as time passes, the object is stationary.

Q: Which law of motion explains why we jerk forward when a moving bus stops suddenly?

Answer: Newton's 1st Law

Hint: This is due to inertia of motion, which is part of Newton's First Law.

Q: The numerical ratio of average velocity to average speed for a moving object is:

Answer:

Q: A body thrown vertically upward reaches a maximum height h and then comes back. Its total displacement is:

Answer: Zero

Hint: The body starts and ends at the same point (the thrower's hand/ground).

Q: Inertia of an object tends to cause the object to:

Answer: Resist change in motion

Hint: Inertia is the inherent property of a body to resist any change in its state of rest or motion.

Q: What is the SI unit of Retardation?

Answer:

Hint: Retardation is just negative acceleration; it shares the same unit as acceleration.

Q: Which of the following is a scalar quantity?

Answer: Distance

Hint: Distance has only magnitude and no specific direction, making it a scalar.

Q: When an object travels equal distances in equal intervals of time, it is said to be in:

Answer: Uniform motion

Hint: This is the definition of uniform motion.

Q: The area under a Velocity-Time graph represents:

Answer: Displacement

Hint: The product of velocity and time gives displacement.

Q: What does a straight line sloping upwards on a Velocity-Time graph indicate?

Answer: Uniform acceleration

Hint: A constant increase in velocity over time represents uniform acceleration.

Q: If the displacement of an object is proportional to the square of time, then the object moves with:

Answer: Uniform acceleration

Q: A body moving in a straight line with constant velocity has an acceleration of:

Answer: Zero

Hint: Acceleration is the change in velocity; if velocity is constant, the change is zero.

Q: In a circular motion at a constant speed, the direction of velocity is:

Answer: Tangential to the path

Hint: At any point on a circular path, the velocity vector points along the tangent.

Q: Why is uniform circular motion called "accelerated motion" even if the speed is constant?

Answer: Direction changes

Hint: Acceleration is a vector; since the direction is constantly changing, the velocity is changing.

Q: Which of these is an example of "Inertia of Rest"?

Answer: Dust flying off a beaten carpet

Hint: The carpet moves, but the dust particles tend to stay at rest due to inertia.

Q: A curved line on a Distance-Time graph indicates:

Answer: Non-uniform speed

Hint: A curve shows that the distance covered per unit of time is changing.

Q: According to Newton's Third Law, Action and Reaction forces:

Answer: Act on different bodies

Hint: They act on two different objects, which is why they don't "cancel" into zero force.

Q: The "inertia" of an object is directly dependent on its:

Answer: Mass

Hint: Mass is the quantitative measure of inertia.

Q: If no external force acts on a system of bodies, the total momentum remains:

Answer: Constant

Hint: This is the Law of Conservation of Momentum.

Q: A passenger in a moving train tosses a coin which falls behind him. This means the motion of the train is:

Answer: Accelerated

Hint: The train speeds up while the coin is in the air, leaving the coin behind.

Q: The speed-time graph for a particle is a straight line not passing through the origin. This means:

Answer:  $u \neq 0$

Hint: If the line doesn't start at (0,0), it means the object had an initial speed.

Q: Which of the following is responsible for keeping a body in a circular path?

Answer: Centripetal force

Hint: Centripetal force acts towards the center to maintain circular motion.

Q: When a bullet is fired from a gun, the gun recoils. This is explained by:

Answer: Newton's 3rd Law

Hint: The bullet pushes the gun back with an equal and opposite force.

Q: A body is said to be in "Retardation" when:

Answer: Velocity is decreasing

Hint: Retardation is negative acceleration (slowing down).

Q: The motion of a pendulum is an example of:

Answer: Periodic motion

Hint: It repeats its path at regular intervals of time.

Q: A goalkeeper pulls his hands backwards while catching a fast-moving cricket ball. This is to:

Answer: Reduce the force

Hint: By increasing the time of contact, the rate of change of momentum (force) decreases.

Q: The "Law of Inertia" was first proposed by:

Answer: Galileo

Hint: Galileo established the concept of inertia; Newton later formalized it as his First Law.

Q: What is total area of Punjab?

Answer: 50362

Hint: Total Area of Punjab is 50,362 Square Kilometer

Q: What percentage of area of the state of Punjab is classified as urban as per Government of Punjab Department of Planning?

Answer: 4%

Hint: Punjab has a total area of 50,362 square kilometers out of which urban area spanning approximately 2097 square kilometers

Q: Total Rural Area of Punjab in Square Kilometer?

Answer: 48,265

Hint: Total rural Area of Punjab is 48,265 Square Kilometer which is 96% of Total Area of Punjab

Q: Total Forest cover as per India State of Forest Report 2023?

Answer: 1846.09

Hint: Total Forest Area of Punjab as per India State of forest Report 2023 is 1846.09 Square Kilometer Which is 3.67% of Total area

Q: What is Latitude and Longitude of Punjab?

Answer: 29 30 E to 32 32 E & 73 55 N to 76 50 N

Hint: Latitude and Longitude of Punjab is 29 30 E to 32 32 E & 73 55 N to 76 50 N

Q: Malerkotla is New District is Punjab is carved out of which District?

Answer: Sangrur

Hint: Malerkotla is carved out of District Sangrur is 23rd District of Punjab

Q: Total Number of Divisions in Punjab?

Answer: 5

Hint: There are total 5 Divisions in Punjab

Q: Total Number of Sub-Divisions/Tehsils in Punjab?

Answer: 97

Hint: There are total 97 Tehsils in Punjab

Q: Which is newly Approved Tehsil in Punjab in 2025-26

Answer: Banur

Hint: As of late 2025/early 2026, the Punjab Cabinet has approved the upgrade of Banur from a sub-tehsil to a full-fledged Tehsil in the S.A.S. Nagar (Mohali) district

Q: Which of following is Approved as a new sub-tehsil in 2025-26

Answer: Haryana (Hoshiarpur)

Q: Total Numbers of Villages in Punjab?

Answer: 12581

Hint: There are total 12581 villages in Punjab

Q: Which of following district does not share border with Pakistan

Answer: Faridkot

Hint: 6 District share border with Pakistan Fazilka Ferozepur, Tarn Taran, Amritsar, Gurdaspur and Pathankot

Q: Punjab is divided by rivers into how many region?

Answer: 3

Hint: Punjab is divided into 3 will recognized areas 1) Majha (Upper Bari Doab), 2) Doaba (Bist Jalandhar Doab) 3) Malwa

Q: What are number of Districts in Majha Doaba & Malwa respectively

Answer: 4,4 &15

Hint: Majha has 4, Doaba has 4 and Malwa has 15 Districts

Q: Which District share border with Jammu and Kashmir:- 1) Gurdaspur 2) Pathankot 3) Hoshiarpur 4) Amritsar

Answer: Only 2

Q: What is Average Rain Fall of Punjab?

Answer: 629.8 mm

Hint: Average Rainfall in Punjab is 629.8 mm

Q: Which is smallest District in Punjab area wise?

Answer: Malerkotla

Hint: SAS Nagar was smallest District with area of 1098 Sq Km but New carved District malerkotla has are of only 684 Sq Km and Ludhiana is Largest District 3767 sq Km

Q: Which is most Literate District in Punjab?

Answer: Hoshiarpur

Hint: Hoshiarpura is most Literate District in Punjab with 84.6% of Literacy Rate

Q: Which is Least Literate District in Punjab?

Answer: Mansa

Hint: Mansa is Least Literate District in Punajb

Q: Which is Least Populated District in Punjab?

Answer: Barnala

Hint: Barnala is Least Populated District in Punjab where as Ludhiana is Most Populated District in Punjab

Q: Which is the second largest religion in the Indian State of Punjab as per 2011 census?

Answer: Hinduism

Q: Which Tehsil in Punjab doesn't have Urban population as per Census of India 2011?

Answer: Khadoor Sahib

Q: Which District has Lowest Sex Ratio?

Answer: Bathinda

Hint: Bathinda has lowest sex ratio, Hoshiarpur has Highest Sex Ration

Q: Which District has Highest Child Sex Ratio?

Answer: SBS Nagar

Hint: SBS Nagar (Nawanshahr) has Highest Child Sex Ratio,

Q: Which district has Lowest Population Density?

Answer: Muktsar

Hint: Sri Muktsar has lowest Population Density of 348 Person/Sq Km and Ludhiana has Highest of 978 persons/sq km where as population density of punjab is 551 per sq km as pe Census of India 2011

Q: Area of punjab is \_\_\_\_\_ percent of total area of Country

Answer: 1.54

Hint: Area of punjab is 1.54 percent of total area of Country

Q: Size wise Punjab comes at which rank in all the states of India

Answer: 21

Hint: Size wise Punjab comes at 21st rank in all the states of India

Q: Shiwalik Hills are along which direction in punjab

Answer: North East

Hint: Siwlik Hills runs along the extreme North-Eastern Part of Punjab in 4 Districts Pathankot, Hoshiarpur, SBS Nagar & Rupnagar

Q: What is the approximate length of Internation Border Shared by Punjab?

Answer: 553

Hint: Punjab Share approximately 553 Kms of Internation Border with Pakistan

Q: What is the shape of Punjab?

Answer: Triangular

Hint: Shape of Punjab is Triangular

Q: What is Average elevation Punjab above the Sea Level?

Answer: 300 M

Hint: Average Elevation of Punjab is approximately 300 M above sea level, From minimum 180m (southwestern Parts districts like Fazilka and Muktsar)) Maximum upto 1000 m (Northeastern tip of State in Dhar Kalan Block of Pathankot District )

Q: ?????? ?? 'Cephalocaudal' ?????? ?????? ?????? ?????? ?????? ???

Answer: ??? ??? ?????? ???

Hint: ??? ??? ?????? ??? ?? ??????

Q: ??? ?????? ??????? ??? ?????? ?????? ?????? 'Object Permanence' ??????? ?????? ???

Answer: Sensory Motor

Hint: 0-2 ??? ?? ???

Q: ?????????? ??????? 'Scaffolding' ?? ?? ??? ???

Answer: ??????? ?????? ?????? ?? ?????? ???

Hint: ?????? ???????

Q: ?????????? ??????? 'Good Boy-Nice Girl' ?????? ??? ?????? ?????? ???

Answer: Conventional

Hint: ??????? ?????????? ?? ??????

Q: '?????????' (Dyslexia) ??? ??? ?????? ??????? ???

Answer: ????? ???

Hint: ?????? ????? ???????

Q: ??? ??????? ??????? ?????? ?????? ?????? ?????? ?????? ???

Answer: ????? ??

Hint: Child-Centered

Q: 'ZPD' (Zone of Proximal Development) ?? ?????? ?????? ???????

Answer: ???????????

Hint: Vygotsky ?? ???????

Q: ??? ??????? ??????? ?????? ?????????? ?????? ?????? ??? ?????????? ?????? ???

Answer: ?????????? ??????? ??? ??????

Hint: External environment

Q: ?????????????? (Heredity) ??? ??? \_\_\_\_\_ ??????? ??????? ?????? ?????? ???

Answer: ????? (Static)

Hint: ?????? ?????? ??????? ??

Q: ?????? ?? ?????????? (Assessment FOR Learning) ?????????? ?????? ??:

Answer: ?????? ?????? ?????? '??

Hint: Formative Assessment

Q: 6-12 ??? ?? ?????? ??? ???-????????? ?????? ?? ?????????? ?????? ???

Answer: Industry vs Inferiority

Hint: Erikson's 4th stage

Q: ??? ?????????????? (Creative) ?????? ?????? ?????? ??? ?????? ???

Answer: Divergent Thinking

Hint: Out of the box thinking

Q: ?????? ?????? ?????????? ?????? '?? ?????????? ??? ?? ??????? ???

Answer: ??????????????

Hint: Constructivism

Q: 'ADHD' ?? ?????? ??? ?? ???

Answer: Attention Deficit Hyperactivity Disorder

Hint: Lack of attention

Q: ?????? ??? ??????? ?????????? ??? ?? ?????????? ???

Answer: Dyscalculia

Hint: Math learning disability

Q: ??? ??? ??? '????? ?? ???' (Gang Age) ?????? ??????? ???

Answer: Later Childhood

Hint: 6-12 Years

Q: ?????????? ?????? ?? ?????????????? ?? \_\_\_\_\_ ??????? ???

Answer: ?????????  
Hint: First agency of socialization

Q: ??? ?????? ?? ??????? ??? ?? ????? ???  
Answer: ????? ???????  
Hint: Little Scientists

Q: ????????????? ??????? ?? ??????? ??? ???  
Answer: ??? ?????  
Hint: Learning by doing

Q: ??????? ????? ??????? (Errors) ????? ??? ??? ??:  
Answer: ????? ?? ??? ??????? ?????? ??  
Hint: Part of learning process

Q: ??????? ?? ????????? ??? ????? ????? ?????? ?????? ???  
Answer: Interpersonal  
Hint: Inter-personal intelligence

Q: ????????? ??????? (Inclusive Ed.) ?? ????? ?????? ??:  
Answer: ????? ??????? ??? ?????? ?????  
Hint: Education for all

Q: ??????? ?????? ??? '????? ??? ???????' ?????? ??????  
Answer: ??????? ???  
Hint: Stress and Storm

Q: ????????? ????????? (Intrinsic) ?? ??????? ??:  
Answer: ?????? ?????? ?????? ?????  
Hint: Self-satisfaction

Q: ?????????????-?????? ??????? ?? ?????? ??:  
Answer: ?????? ??? ?????? ???  
Hint: Center to periphery

Q: ?????? ?????? ?? ?? ??? ??????? ?????? ?????? ???  
Answer: Early Childhood  
Hint: Critical period for language

Q: CCE ????? '??????' ?? ?? ??? ???  
Answer: ??????? ??? ???-???????? ???  
Hint: Scholastic and Co-scholastic

Q: ?????? ?????? ?? ??????? ???  
Answer: ????? x ?????????  
Hint: Heredity into Environment

Q: '?????? ??????' ??? ?? ???  
Answer: ?????????? ????? (Blind)

Hint: For visually impaired

Q: ????? ??? ????? ?????? (Thinking about thinking) ??:

Answer: ??????????????

Hint: Meta-cognition

Q: ????? '?????????' (?????????) ??? ?????? ????? ??????? ???

Answer: Concrete Operational

Hint: Logical ordering

Q: ?????????? ??????? ?????? ??? ??? ?? ??????? ??:

Answer: ?????? ?????? ?????? ??? ??? ?????? ??

Hint: Social speech and thought

Q: ?????????????? ??????? ?? IQ ?????? ?????? ???

Answer: 140+

Hint: Gifted category

Q: ????? (Gender) ??? \_\_\_\_\_ ?????? ???

Answer: ???????

Hint: Social construct

Q: 'Scaffolding' ?? ??????? ?????? ???

Answer: ?????? ??? ?????? ??? ?????? ?????

Hint: Temporary support

Q: ?????????? (Maturation) ?? ?????? ??? ??? ???

Answer: ?????? ???

Hint: Biological growth

Q: Open-ended ??????? ?? ?????????? ???

Answer: ??????? ??? (Divergent)

Hint: Multiple creative solutions

Q: Logical-Mathematical ?????? ?????????? ?????? ?????? ???

Answer: ?????????? ??? ?????? ??????????

Hint: Reasoning skills

Q: ?????? ?????? ?????? ?? ?? ??? ?????? ??????:

Answer: ?????? ??????

Hint: Pedagogical approach

Q: ?????? (Original) ??? ?????? ?????? ?????????? ???

Answer: ?????????????? ??????

Hint: Creativity trait

Q: ?????? ?????????? ?? ?????? ?????? ???

Answer: ??????????

Hint: Secondary agency

Q: ????? ???? ????? ??:

Answer: ??????? ???? ????????? ???????

Hint: Womb to Tomb

Q: 'Assimilation' ?? ??? ??:

Answer: ?????? ????????? ????? ????? ??????

Hint: Existing schema update

Q: 'Accommodation' ?? ??? ??:

Answer: ?????? ????? ??? ?????

Hint: Schema modification

Q: ?????????? ?? ??? ??:

Answer: ????? ?? ????????? ??? ?????????

Hint: Social adaptation

Q: Social Contract ????? ?????????:

Answer: ????? ?? ????? ?? ????? ??

Hint: Kohlberg stage 5

Q: '?????????????' (Dysgraphia) ????? ??:

Answer: ?????

Hint: Writing disorder

Q: ?????? ??? 'Facilitator' ?? ??? ???????:

Answer: ???????????

Hint: Constructivist view

Q: CDP ????? ????????? ?????? ???

Answer: ????? ?? ?????? ??? ????? ??

Hint: Understanding learner

Q: ????? (Growth) ????? ??:

Answer: ??????????

Hint: Measurable growth

Q: 'Egocentrism' ??? ??? ????? ?????? ???

Answer: Pre-operational

Hint: Self-centered thinking

Q: ??? ????? ?? ??? ????? ??:

Answer: ?????????? ?????? ??

Hint: Play-way method

Q: 'Private Speech' ?? ????? ?????? ???????

Answer: ???????????

Hint: Self-regulation through talk

Q: ???-????? ?????? ?? ???:

Answer: ??????

Hint: Howard Gardner

Q: ?????????? (Individual Diff.) ??:

Answer: ?????? ?? ?????

Hint: Diverse learning resource

Q: ?????????????? ????? ?????? ????? ??:

Answer: ??????

Hint: Active participant

Q: ?????? ?? ??? ??? ??:

Answer: ?????? ????? ????? ????????

Hint: Behavior modification

Q: 'Drive Reduction' ?????? ??????? ??:

Answer: ??? (Hull)

Hint: Needs drive behavior

Q: ?????????? ??? ???????:

Answer: ??? ????? '?? ?????? ??

Hint: Interdependent

Q: Inclusion ?????? ?????? ?????? ??:

Answer: ?????? ??????? ?????? ??????

Hint: Zero Rejection policy

Q: ????? ?? ?????? ???????:

Answer: ???/????????

Hint: Mother is first teacher

Q: ?????? ??????? 'Centration' ?? ??????:

Answer: ?????? ??? ?????? '?? ??????

Hint: Focus on single aspect

Q: Mastery Oriented ?????? ?? ???

Answer: ?????? ?????? ??????? ??????

Hint: Learning for expertise

Q: IEP ?????? ?????? ??:

Answer: ?????????? ??? ????????

Hint: Tailored for special needs

Q: Operant Conditioning ?????? ???

Answer: ??????

Hint: B.F. Skinner

Q: ?????? ??????? (Rote learning) ??:

Answer: ?? ??? ????? ?????

Hint: Ineffective method

Q: 'Empathy' ?????? ??:

Answer: ?????????? ??????

Hint: Emotional Intelligence

Q: Play-way ????? ??? ?? ?????????? ??????

Answer: ???????

Hint: Froebel/Kindergarten

Q: ????????? (Curiosity) ?????? ?? ??:

Answer: ??? ?????????? ???????

Hint: Driver of learning

Q: Concrete Operational ?????? ?? ???:

Answer: 7-11 ???

Hint: Logic on physical objects

Q: ?????? ?????????? ?? \_\_\_\_\_ ?????? ???

Answer: ?????????

Hint: Secondary agency

Q: Discovery Learning ????? ?????:

Answer: ??? ????? ??

Hint: Child as discoverer

Q: Self-Esteem ?????? ?? ?????????? ?? ?????

Answer: ???????/???????

Hint: Positive reinforcement

Q: Formative Assessment ????? ?????? ???

Answer: ?????????? ?? ??????

Hint: During instruction

Q: Critical thinking ?? ?????? ?????? ?????? ???

Answer: ????? ?? ?? ?????? ???

Hint: Analytical thinking

Q: 'Reversibility' ??? ?????? ?????? ?????? ???

Answer: Concrete Operational

Hint: Ability to reverse steps

Q: 'Heinz Dilemma' ??? ?? ??????

Answer: ?????????

Hint: Moral development study

Q: ?????????????? ??? '?? ?????? ?????? ???

Answer: ?????? ?????????/????? '??

Hint: External reinforcement

Q: ?????? ??? (MA) ?? ??????:

Answer: ????? (Binet)

Hint: Alfred Binet

Q: IQ ????????:

Answer: MA/CA x 100

Hint: Intelligence Quotient

Q: ????? ??? '?? ?????? ??? ?? ????? ?????? ???

Answer: ????? ??????

Hint: Diagnostic teaching

Q: Micro Teaching ?????????? ?? ???

Answer: ?????? ?????? ??

Hint: Teacher training skill

Q: Resource Teacher ??? ????? ??:

Answer: ????????? ?????? ????? ????????? ??

Hint: CWSN support

Q: Scaffolding ????? ????????? ?????? ???

Answer: ????? ????? ??? ??? ??? ?????

Hint: Fading support

Q: LAD ?????? ?????? ???

Answer: ??????? (Chomsky)

Hint: Language Acquisition Device

Q: Gang Age ?????? ?????? ???

Answer: Later Childhood

Hint: 6-12 Years group play

Q: Motivation ?????? ?? ?????????? ???:

Answer: ????? ??? ?????? ?????????? ??

Hint: Engine of learning

Q: ????? ?? ?????? ????? ????????? ???

Answer: ????? ??? ?????? ?????? ??

Hint: Holistic development

Q: ??????? ?? ??? ????? ???

Answer: ????? ?? ?????? ?????????

Hint: Classroom environment

Q: Trial and Error ??????:

Answer: ?????????

Hint: Thorndike's Cat experiment

Q: ?????? ?? ????? (Readiness) ?? ???

Answer: ?????? ??? '?? ?????? ?? ?????

Hint: Mental preparedness

Q: Individual Differences ????? ??:

Answer: ?????? ??? ???????

Hint: Observation method

Q: Cooperative Learning ????? ?????:

Answer: ????? ????? ??? ??? ??????? ??

Hint: Group collaboration

Q: Abstract Reasoning ????? ?????? ?????? ???

Answer: Formal Operational

Hint: Piaget stage 4

Q: ?????? ??? ?????? ????? ??????? ?????? ???

Answer: ?? ????? ?? ???????

Hint: Probing questions

Q: Reflection ?? ?????:

Answer: ????? ??????? ?? ???????

Hint: Reflective practice

Q: Problem Solving ????? ?????? ?????:

Answer: ??????? ?? ?????

Hint: Identifying the problem

Q: Inclusive Education ????? ??? ???

Answer: ????? ????? ??????

Hint: Diversity in classroom

Q: Primary Socialization Agency:

Answer: ??????

Hint: Family is primary

Q: ?????????? ??????? ?????? ?? ?????:

Answer: ?????? ?????-?????

Hint: Social Interaction

Q: ?????? ??????? ????? (Acquisition) ?? ???

Answer: ????? ??? ??????? ??????????

Hint: ???-????? ??????? ?????? ??

Q: ?????? ?????? (Learning) ?? ????? ????? ?? ???

Answer: ?????? ??? ??? ?????

Hint: ????? ?????? ??????? ??? ?????? ?????? ??

Q: ????? ????? ?????? ?????? ?? ?????????? ??????? (LAD) ?????? ?? - ?? ?????? ??????  
Answer: ??? ???????  
Hint: Noam Chomsky ?? ???????

Q: ?????? ?? '????????????? ??????' (Receptive Skills) ?????? ???  
Answer: ?????? ?? ???????  
Hint: ?????????? ?????? ?????

Q: ?????? ?? '????????? ??????' (Productive Skills) ?????? ???  
Answer: ?????? ?? ??????  
Hint: ?????? ?????? ?????? ?????

Q: ?????? ?????? ?????? ?? ??? ?????????????? ?? ???  
Answer: ??? ?????????? ?????  
Hint: ??? ?? ?????????? ?? ??? ?????????? ??

Q: ?????????? ?????????? ?? ?? ??? ?????? ?????? ?????? ???  
Answer: ?????? ?????  
Hint: Inductive Method (Example to Rule)

Q: ?????? ?????? (Inductive Method) ?????? ??? ?????? ?? ??????? ??????? ?????  
Answer: ?????????? ??? ?????  
Hint: ?????????? ?????????? ??????? ??????? ??

Q: ?????? ?????? (Deductive Method) ?????? ?? ??????? ?????  
Answer: ?????? ??? ?????????  
Hint: ?????????? ?????????????? ??????? ??????? ??

Q: ?????????????? (Dyslexia) ??? ??? ??????? ?????  
Answer: ??????? ?????  
Hint: Reading Disability

Q: ?????????????? (Dysgraphia) ??? ??? ??????? ?????  
Answer: ?????? ?????  
Hint: Writing Disability

Q: ???-????????????? ??? ?????? ?????? ?? ??????? ?????????? ?????  
Answer: ??? ?????? (Resource)  
Hint: Multilingualism is an asset

Q: ?????? ?????? ??????? ?????? ??????? ?????? ?????? ?????? ?? ?????????? ?????  
Answer: ?????????????? ?????????  
Hint: Diagnostic teaching

Q: ?????? ??? ?????? ??? ?????? ??????? ?????? ?????? ?????? ?????? ?????  
Answer: ?????????????? ?????????  
Hint: Remedial teaching

Q: ??? ?????????? (Silent Reading) ??? ?? ?????????? ?????

Answer: ?????? ??? ??? ?????????? ??  
Hint: ?? ?????? ?????????? ?????? '?? ?????????? ?????? ??

Q: ?????? ????????? (Loud Reading) ?? ?????? ?????????? ?? ???  
Answer: ?????? ??? ?????? ?? ?????????? ??????????  
Hint: ?????????? ?????? '?? ??????????

Q: ?????????? ?????????? ?? ?????? ?????????? ???  
Answer: ??????????  
Hint: Gurmukhi script

Q: ?????????? ?????????? ?? ?????? ?????????? ??-????????? ???  
Answer: ??????  
Hint: Majhi is standard Punjabi

Q: CCE ?????? '???????' (Comprehensive) ?? ?? ??? ???  
Answer: ?????????? ??? ???-????????? ???  
Hint: Overall development

Q: ?????? ?????? ?? ??? ?????? ?? ???  
Answer: LSRW  
Hint: Listen-Speak-Read-Write

Q: ????????????? (Linguaphone) ??? ?????????? ?? ?????? ???  
Answer: ?????? (Audio)  
Hint: ?????? ?????? ??

Q: ????????????? (Portfolio) ?? ?????????????? ???  
Answer: ?????? ?? ?????????? ?????????? ?? ??????????  
Hint: Collection of student work

Q: ?????? ?????????? ?????? ??? ?? ?????? ?????????? ???  
Answer: ?????????? ?????????? ??  
Hint: Incidental Grammar teaching

Q: ?????? ?????????????? ?? ?????? ?????????? ?? ???  
Answer: ?? ??? ??? ?? ?????????? ??????  
Hint: Aesthetic appreciation

Q: ?????? ?????????????? ??? ?????? ??? ?????? ???  
Answer: ?????????? ?????????? ?? ??????????  
Hint: Imagination power

Q: ?????? ?????????????????? (Language Lab) ?? ?????? ??? ?? ???  
Answer: ?????????? ?????? ??????????????  
Hint: Speech correction

Q: ???-????????? ?????????? ?? ?????? ?????? ?? ???  
Answer: ?????? ??? ?????????? ???

Hint: Known to Unknown

Q: ?????-????????? ?? ?????? ?????? ?????? ???

Answer: 10

Hint: ????, ?????? ??? (10)

Q: ?????? ?????? ?????? ?????? ???

Answer: 3

Hint: ?????, ?????, ????

Q: ?????? ?????? ?? ?? ??? ?????? ?????? ?????? ???

Answer: ?????/??? ????????

Hint: ??? ?? ??? ?????

Q: ?????? ?????? ?? '????? ??? ???' ?????? ?? ???

Answer: ?????? ??? ?? ?????? ????????

Hint: Look and Say

Q: ??? ?????? ??????? ?????? ?????? ?? ?????? ??????? ???

Answer: ?????? ?? ????????????

Hint: Validity and Reliability

Q: ?????????? ??????? ?????????? ???

Answer: ?? ??? ?????? ?????????? ??

Hint: Nasal sounds

Q: NCF 2005 ?????? ?????? ?????? ?????? ?????? ?????? ?????? ???

Answer: ??? ????????

Hint: Child-Centered

Q: ?????? ?????? ?????? '???????' '????-?????' '?? ?????? ?????? ???????'

Answer: ???????????

Hint: Vygotsky (Social Interaction)

Q: ?????????? ?????????? (Formative) ?????? ?????? ???

Answer: ?????????? ?? ??????

Hint: Continuous feedback

Q: ?????? ?????? ?? ?? ??? ?????? ?????? ?? ???

Answer: ?????? ??????

Hint: Calligraphy practice

Q: ?????????????? ?????? ??????? ?? ?????????????? ???

Answer: ?????? ?? ??????

Hint: Windows into student's thinking

Q: ??????? ?????? ?????? '????' (Tone) ?? ?? ?????? ???

Answer: ??? ??? ?????? ??

Hint: Punjabi is a tonal language

Q: ????? ????? ?????? ?? ?????? ?? ?????? ??

Answer: ?????? ????? ?????????????? ?? ??????

Hint: Fine motor skills

Q: ?????? ??? ?????? ??? ?????? ?????? ?????? ?? ???

Answer: ????????????? (Scaffolding)

Hint: Vygotsky's Scaffolding

Q: ???-????? (Textbook) ?? ???

Answer: ??? ????? ?????? ?????

Hint: Important resource/tool

Q: ???-????? ?????? ?????????? ??? ??? ?????:

Answer: ?????? ?????? ??

Hint: Easier comprehension

Q: ??????? ?? ?????? ?????? ?????? ?? ?????? ?? ???

Answer: ??????? ?? ?????????? ?????? ?????? ??????

Hint: Lacks systematic grammar

Q: ????????? ?????? ?????? ??? ?????? ??? ?????? ?????? (????? ?????) ?????? ???

Answer: 3

Hint: ?,?,?

Q: ??????? ?????? '?????' ?? ?????? ?????? ?????? ???

Answer: ?????? ?????? ??? ?? (??)

Hint: Stress/Gemination

Q: ?????? (Learning) ?? ?????????? ?????? ??? ?????? ???

Answer: ?? ?????? ?? ?????? ??

Hint: Life-long process

Q: ??? ?????? ?????????? ?? ?? ??? ?????? ?????????? ?? ???

Answer: ??????? ?? ?????????? ?????????? ?? ?????????

Hint: Managing diversity

Q: ????????? ?? ?????? ??? ?? ???

Answer: ?????? ??? ?????????? ?? ?????? ??????

Hint: Standardizing language

Q: ??????? ?????????? ?????????? '????? ??? ??????' ?? ?? ??? ???

Answer: ??? ?????????? ??? ?????????? ???

Hint: Concrete to Abstract

Q: Molars are mainly used for:

Answer: Grinding and chewing

Hint: Molars have broad surfaces suited for grinding food.

Q: Which type of bone forms the skull and protects the brain?

Answer: Flat bones

Hint: Skull bones are mainly flat bones that provide protection.

Q: In humans, digestion of cellulose is:

Answer: Not significant because humans lack cellulase

Hint: Humans do not produce cellulase; cellulose acts mainly as roughage.

Q: Long bones are mainly found in:

Answer: Arms and legs

Hint: Long bones like femur and humerus are found in limbs.

Q: Roughage in food mainly helps by:

Answer: Adding bulk and aiding bowel movement

Hint: Dietary fibre adds bulk to food and helps smooth movement through the intestine.

Q: The shoulder joint is an example of a:

Answer: Ball-and-socket joint

Hint: Shoulder allows movement in many directions, typical of ball-and-socket joint.

Q: Which of these is an example of a deficiency disease linked to poor digestion/absorption of nutrients?

Answer: Anaemia due to iron deficiency

Hint: If iron intake/absorption is low, haemoglobin formation reduces, leading to anaemia.

Q: The knee joint is primarily a:

Answer: Hinge joint

Hint: Knee allows bending and straightening mainly in one plane, like a hinge.

Q: Where does bile enter the alimentary canal?

Answer: Duodenum (first part of small intestine)

Hint: Bile is released into the duodenum to act on fats.

Q: Which is NOT a function of the skeletal system?

Answer: Producing digestive juices

Hint: Digestive juices are produced by digestive glands; skeleton supports, protects and helps form blood cells.

Q: Gastric juice contains pepsin, mucus and:

Answer: Hydrochloric acid

Hint: HCl is a component of gastric juice that supports pepsin action.

Q: A healthy posture is maintained by:

Answer: Strong bones and muscles supporting the body

Hint: Good posture depends on skeletal alignment and supporting muscles.

Q: Which pair is correctly matched?

Answer:

Hint: Amylase digests carbohydrates; the other pairs are incorrect.

Q: The human skeleton can be divided into axial and appendicular parts. The axial skeleton includes:

Answer: Skull, vertebral column and rib cage

Hint: Axial skeleton forms the main axis: skull, spine and rib cage.

Q: What is the semi-fluid mass of partially digested food in the stomach called?

Answer: Chyme

Hint: Chyme is the thick semi-liquid formed in the stomach after mixing food with gastric juice.

Q: The appendicular skeleton includes:

Answer: Limbs and girdles

Hint: Appendicular skeleton includes arms, legs, shoulder girdle and pelvic girdle.

Q: Which vitamin is mainly absorbed in the small intestine and is essential for normal blood clotting?

Answer: Vitamin K

Hint: Vitamin K helps in blood clotting; it is absorbed through the intestine (often aided by gut bacteria).

Q: Which bone protects the heart from the front side with ribs?

Answer: Sternum

Hint: The sternum (breastbone) forms the front attachment for ribs and protects the thoracic organs.

Q: If villi are damaged, which problem is most likely?

Answer: Poor absorption of nutrients

Hint: Villi increase absorption; damaged villi reduce nutrient uptake leading to malnutrition.

Q: Joints allow movement because they are places where:

Answer: Two bones meet

Hint: A joint is the junction between bones that may allow movement.

Q: The opening through which food enters the stomach from the oesophagus is controlled by the:

Answer: Lower oesophageal sphincter

Hint: The lower oesophageal sphincter prevents backflow of stomach contents into the oesophagus.

Q: Choose the correct matching pair related to joints:

Answer:

Hint: Ligaments connect bone to bone; tendons connect muscle to bone.

Q: Heartburn is often caused by:

Answer: Acid reflux into the oesophagus

Hint: Reflux of acidic stomach contents irritates the oesophagus, causing a burning sensation.

Q: If cartilage at a joint gets damaged, a person is most likely to feel:

Answer: Pain and reduced smooth movement

Hint: Cartilage reduces friction; its damage causes pain and difficulty in movement.

Q: Which of these helps neutralize the acidic chyme entering the small intestine?

Answer: Bicarbonate in pancreatic juice

Hint: Pancreatic juice contains bicarbonate which neutralizes stomach acid in the duodenum.

Q: A 'slipped disc' usually involves the cushions between:

Answer: Vertebrae

Hint: Intervertebral discs lie between vertebrae and act as shock absorbers; problems can press nerves and cause pain.

Q: Which carbohydrate is NOT digested in the human small intestine as a nutrient?

Answer: Cellulose

Hint: Cellulose is dietary fibre; humans cannot digest it due to absence of cellulase.

Q: Which of these is an example of an irregular bone?

Answer: Vertebra

Hint: Vertebrae have irregular shapes and form the backbone.

Q: Which is the correct sequence of organs food passes through?

Answer: Mouth ? Oesophagus ? Stomach ? Small intestine ? Large intestine

Hint: Food follows the alimentary canal sequence: mouth, oesophagus, stomach, small intestine, large intestine.

Q: The tiny bones that transmit sound vibrations in the middle ear are collectively called:

Answer: Ossicles

Hint: The malleus, incus and stapes are ossicles that pass vibrations from eardrum to inner ear.

Q: Which statement about enzymes is correct?

Answer: They speed up digestion without being used up

Hint: Enzymes act as biological catalysts: they speed reactions and are not consumed.

Q: Which statement about bones is correct?

Answer: Bones are living tissues with blood supply

Hint: Bones contain living cells and blood vessels, so they can grow and repair after injury.

Q: If a person cannot digest milk sugar (lactose), which enzyme is likely deficient?

Answer: Lactase

Hint: Lactase breaks down lactose; deficiency leads to lactose intolerance.

Q: Bones act as a storehouse mainly for minerals such as:

Answer: Calcium and phosphorus

Hint: Bones store calcium and phosphorus salts that provide hardness and can be released when needed.

Q: The primary role of saliva during chewing is to:

Answer: Moistens food and begins starch digestion

Hint: Saliva lubricates food for swallowing and contains amylase for starch digestion.

Q: The fluid present in movable joints that lubricates the joint surfaces is:

Answer: Synovial fluid

Hint: Synovial fluid reduces friction and nourishes cartilage in synovial joints.

Q: Which part of the digestive system mainly performs mechanical digestion by churning?

Answer: Stomach

Q: Which type of muscles are attached to bones and are under our control?

Answer: Skeletal muscles

Hint: Skeletal muscles attach to bones and are voluntary, helping in body movement.

Q: Why is the small intestine long and coiled?

Answer: To provide large surface area for absorption

Hint: Its length and villi greatly increase surface area for absorption of nutrients.

Q: Smooth muscles are found in:

Answer: Walls of internal organs like stomach and intestine

Hint: Smooth muscles are involuntary muscles present in internal organs.

Q: Which statement about the appendix is most accurate at CBSE level?

Answer: It is a small pouch at the junction of small and large intestine and can get inflamed

Hint: The appendix is a small pouch; inflammation causes appendicitis.

Q: The muscle found only in the heart is called:

Answer: Cardiac muscle

Hint: Cardiac muscle is specialized for rhythmic contraction and relaxation in the heart.

Q: When we say 'balanced diet', it means a diet that:

Answer: Has adequate amounts of all nutrients along with roughage and water

Hint: A balanced diet provides carbohydrates, proteins, fats, vitamins, minerals, fibre and water in proper amounts.

Q: Biceps and triceps in the upper arm work as:

Answer: Antagonistic pair

Hint: Muscles can only pull; antagonistic pairs move a joint in opposite directions.

Q: Which blood vessel network in the villi carries absorbed glucose and amino acids?

Answer: Blood capillaries

Hint: Glucose and amino acids enter blood capillaries in villi; fats mainly enter lacteals.

Q: When you bend your arm at the elbow, the biceps:

Answer: Contracts

Hint: Biceps contracts to bend the forearm; triceps relaxes.

Q: Fats absorbed from the small intestine are carried first mainly by:

Answer: Lymph in lacteals

Hint: Fatty acids and glycerol enter lacteals (lymph vessels) and are transported via lymph.

Q: When you straighten your arm, the triceps:

Answer: Contracts

Hint: Triceps contracts to extend the forearm; biceps relaxes.

Q: The tiny air sacs where exchange of gases occurs in lungs are called:

Answer: Alveoli

Hint: Alveoli have thin walls and rich blood supply, allowing rapid exchange of oxygen and carbon dioxide.

Q: Muscles are attached to bones with the help of:

Answer: Tendons

Hint: Tendons are tough connective tissues that join muscle to bone.

Q: Which structure is known as the voice box?

Answer: Larynx

Hint: The larynx contains vocal cords that produce sound.

Q: Why do muscles usually work in pairs?

Answer: Because they can pull but cannot push

Hint: One muscle pulls in one direction while its partner pulls the bone back.

Q: C-shaped cartilage rings in the trachea prevent it from:

Answer: Collapsing during breathing

Hint: Cartilage rings keep the trachea open so air can pass freely.

Q: The contraction and relaxation of diaphragm helps in:

Answer: Breathing

Hint: Diaphragm movement changes chest volume to draw air in and out of lungs.

Q: During inhalation, the diaphragm:

Answer: Contracts and moves downward

Hint: Contraction flattens the diaphragm, increasing chest volume and drawing air into lungs.

Q: Peristalsis in the alimentary canal is produced by:

Answer: Smooth muscles

Hint: Wave-like movement of smooth muscles pushes food through digestive tract.

Q: During exhalation in normal breathing, the diaphragm generally:

Answer: Relaxes and moves upward

Hint: Relaxation reduces chest volume, pushing air out of the lungs.

Q: Muscle cramps during heavy exercise are commonly linked to buildup of:

Answer: Lactic acid

Hint: In oxygen shortage, anaerobic respiration produces lactic acid, causing cramps and fatigue.

Q: Breathing and respiration are different because respiration is:

Answer: A chemical process releasing energy in cells

Hint: Respiration is cellular oxidation of food to release energy; breathing is just inhalation and exhalation.

Q: The basic function of muscles is to:

Answer: Produce movement by contracting

Hint: Muscles contract to move body parts and help in posture and internal movements.

Q: In aerobic respiration, glucose is completely broken down in presence of:

Answer: Oxygen

Hint: Aerobic respiration uses oxygen to release maximum energy, producing CO<sub>2</sub> and water.

Q: Which of these is an example of involuntary muscle action?

Answer: Movement of food in intestine

Hint: Intestinal movements are controlled by smooth muscles and occur involuntarily.

Q: The main respiratory pigment in human blood is:

Answer: Haemoglobin

Hint: Haemoglobin in RBCs binds oxygen for transport from lungs to tissues.

Q: Cardiac muscles show which special property?

Answer: Rhythmic contraction without fatigue

Hint: Cardiac muscle contracts rhythmically and is adapted to work continuously.

Q: Most carbon dioxide in blood is transported in the form of:

Answer: Bicarbonate ions in plasma

Hint: CO<sub>2</sub> is mainly carried as bicarbonate in plasma after reacting with water in blood.

Q: A student says 'all muscles are voluntary'. The correct statement is:

Answer: Only skeletal muscles are voluntary; smooth and cardiac are involuntary

Hint: Skeletal muscles are under conscious control; smooth and cardiac muscles work automatically.

Q: The nasal cavity helps breathing by mainly:

Answer: Filtering, warming and moistening inhaled air

Hint: Nasal hairs and mucus filter dust; blood supply warms and moistens incoming air.

Q: Which structure connects muscle to bone at a joint?

Answer: Tendon

Hint: Tendons attach muscles to bones so muscle contraction can move bones.

Q: Which structure prevents food from entering the trachea?

Answer: Epiglottis

Hint: The epiglottis covers the windpipe opening during swallowing.

Q: Which type of muscle is found in the walls of blood vessels?

Answer: Smooth muscle

Hint: Smooth muscles in vessel walls help regulate blood flow by constricting or dilating vessels.

Q: The tube that carries air from throat to lungs is the:

Answer: Trachea

Hint: Trachea (windpipe) conducts air from larynx to bronchi.

Q: The energy for muscle contraction is supplied directly by:

Answer: ATP

Hint: ATP provides immediate energy needed for muscle fibers to contract.

Q: Bronchioles ultimately end in clusters of:

Answer: Alveoli

Hint: Bronchioles branch repeatedly and end in alveolar sacs for gas exchange.

Q: Which change usually occurs in muscles after regular exercise?

Answer: They become stronger and more efficient

Hint: Exercise strengthens muscles and improves endurance and efficiency.

Q: What happens to ribs during inhalation?

Answer: They move up and out

Hint: External intercostal muscles lift ribs up and out, increasing chest volume.

Q: Muscle fatigue is mainly due to:

Answer: Accumulation of lactic acid and depletion of energy

Hint: During intense work, lactic acid accumulates and energy stores deplete, causing fatigue.

Q: Which statement correctly describes diffusion of gases in alveoli?

Answer: Oxygen diffuses into blood and carbon dioxide diffuses into alveoli

Hint: Due to concentration gradients, O<sub>2</sub> enters blood and CO<sub>2</sub> leaves blood at alveoli.

Q: Which statement about smooth muscles is correct?

Answer: They are spindle-shaped and involuntary

Hint: Smooth muscles lack striations and work involuntarily in internal organs.

Q: A person at high altitude often breathes faster because:

Answer: Less oxygen is available in air

Hint: At high altitudes, lower oxygen partial pressure triggers faster breathing to obtain more oxygen.

Q: Which statement about skeletal muscles is correct?

Answer: They are striated and voluntary

Hint: Skeletal muscles show stripes (striations) and are controlled voluntarily.

Q: In anaerobic respiration in human muscles (during heavy exercise), the end product is:

Answer: Lactic acid

Hint: Muscle cells may form lactic acid when oxygen supply is insufficient, causing fatigue/cramps.

Q: The muscle that separates chest cavity and abdominal cavity is the:

Answer: Diaphragm

Hint: Diaphragm is a dome-shaped muscle essential for breathing.

Q: Which of these increases most directly when breathing rate increases during exercise?

Answer: Carbon dioxide removal

Hint: Exercise produces more CO<sub>2</sub>, so faster breathing removes it and brings in more oxygen.

Q: The ability of a muscle to return to its original shape after contraction is called:

Answer: Elasticity

Hint: Muscles are elastic; they return to resting length after contraction.

Q: Smoking mainly damages gas exchange by harming the:

Answer: Alveolar walls and airways

Hint: Smoke irritants damage airways and alveoli, reducing surface area and efficiency of gas exchange.

Q: Muscles help maintain posture mainly by:

Answer: Continuous slight contractions

Hint: Posture is maintained by tonic (partial) contractions of muscles.

Q: The process of taking oxygen into the body and releasing carbon dioxide is called:

Answer: Breathing

Hint: Breathing (inhalation and exhalation) brings oxygen and removes carbon dioxide.

Q: Which is an example of cardiac muscle action?

Answer: Beating of heart

Hint: Heartbeat is caused by cardiac muscle contraction.

Q: Which statement about alveoli is TRUE?

Answer: They have a large surface area and thin walls

Hint: Alveoli are thin and richly supplied with capillaries to allow rapid diffusion.

Q: In muscles, the chemical change that provides energy during aerobic respiration mainly uses:

Answer: Oxygen

Hint: Aerobic respiration uses oxygen to release energy from glucose for activities like muscle contraction.

Q: The organ that helps create negative pressure for inhalation is the:

Answer: Diaphragm

Hint: By contracting, the diaphragm increases thoracic volume and lowers pressure inside lungs.

Q: A fast sprint causes breathlessness because muscles require:

Answer: More oxygen and produce more CO<sub>2</sub>

Hint: During exercise, energy demand increases; oxygen requirement and CO<sub>2</sub> production rise.

Q: Which of the following is NOT a function of the respiratory system?

Answer: Transporting urea to kidneys

Hint: Urea transport/removal relates to excretory system; lungs exchange gases and help regulate CO<sub>2</sub>.

Q: Which is NOT a function of muscles?

Answer: Producing RBCs

Hint: RBCs are produced mainly in bone marrow; muscles mainly cause movement and support posture.

Q: Air passes from trachea to lungs through two main tubes called:

Answer: Bronchi

Hint: The trachea divides into two bronchi, one entering each lung.

Q: The strongest muscle group in the human body (basic level) is often considered the muscles of:

Answer: Jaw

Hint: Jaw muscles can exert very large force during biting and chewing (commonly cited at school level).

Q: In a healthy person at rest, exhaled air generally has:

Answer: More carbon dioxide than inhaled air

Hint: Cells produce CO<sub>2</sub>, so exhaled air contains more CO<sub>2</sub> and less O<sub>2</sub> compared to inhaled air.

Q: The involuntary muscles of the iris control:

Answer: Pupil size

Hint: Iris muscles adjust the pupil diameter to regulate light entering the eye.

Q: Why is breathing through the nose considered better than through the mouth?

Answer: Nose filters and warms air better

Hint: The nasal passage has hairs and mucus for filtering and helps warm and moisten air.

Q: Which feature helps skeletal muscles move bones efficiently?

Answer: Attachment at joints via tendons

Hint: Tendons connect muscles to bones and transmit the pulling force across joints.

Q: Which disease is characterized by difficulty in breathing due to narrowing of air passages?

Answer: Asthma

Hint: Asthma involves inflammation and narrowing of bronchioles causing wheezing and breathlessness.

Q: Which statement best describes a muscle 'contraction'?

Answer: Muscle fibers shorten and pull

Hint: Contraction involves shortening of muscle fibres that produces pulling force.

Q: The main muscle used for breathing is the:

Answer: Diaphragm

Hint: Diaphragm is the primary muscle controlling inhalation and exhalation.

Q: If a motor nerve supplying a muscle is damaged, the muscle may:

Answer: Not contract properly

Hint: Motor nerves carry signals to muscles; damage can cause weakness or paralysis.

Q: A person who holds their breath for long will feel an urge to breathe mainly because:

Answer: Carbon dioxide builds up in blood

Hint: Rising CO<sub>2</sub> stimulates breathing centers, creating the urge to breathe.

Q: Why do athletes warm up before exercise?

Answer: To increase blood flow and reduce injury risk

Hint: Warm-up prepares muscles by increasing circulation and flexibility, reducing strains.

Q: Which statement best explains why alveoli are moist?

Answer: Moist surface helps gases dissolve and diffuse

Hint: Gases dissolve in moisture before diffusing across alveolar membranes.

Q: A muscle strain most commonly involves:

Answer: Overstretching or tearing of muscle fibers

Hint: Strain is injury to muscle or tendon caused by overstretching.

Q: Inhaled oxygen is finally used by cells mainly in:

Answer: Mitochondria for cellular respiration

Hint: Mitochondria use oxygen in aerobic respiration to release energy from food.

Q: Which of these is an example of a muscle that works without rest throughout life?

Answer: Cardiac muscle

Hint: Cardiac muscle keeps contracting rhythmically throughout life.

Q: Carbon monoxide is dangerous because it:

Answer: Binds haemoglobin strongly and reduces oxygen transport

Hint: CO binds haemoglobin more strongly than oxygen, preventing oxygen carriage and causing suffocation.

Q: Smooth muscles in the stomach wall help in:

Answer: Churning and mixing food

Hint: Stomach smooth muscles perform mechanical digestion by mixing food with gastric juice.

Q: Which of the following changes occurs in the chest cavity during inhalation?

Answer: Volume increases and pressure decreases

Hint: Inhalation increases thoracic volume, lowering pressure so air moves into lungs.

Q: Which of the following is a correct match?

Answer:

Hint: Tendons connect muscles to bones; ligaments connect bones to bones.

Q: Which of these is a correct match of part and function?

Answer:

Hint: Epiglottis acts as a flap covering the windpipe during swallowing.

Q: Muscles of the face help mainly in:

Answer: Facial expressions and speech

Hint: Facial muscles move skin to form expressions and assist in speaking and chewing.

Q: A student says 'lungs are hollow balloons'. The best correction is:

Answer: Lungs contain millions of alveoli and are spongy

Hint: Lungs are spongy with many air sacs (alveoli), not single hollow balloons.

Q: Involuntary muscles are controlled by:

Answer: Autonomic nervous system

Hint: Autonomic nerves control involuntary activities of smooth muscles and glands.

Q: Why does exhaled air appear warm?

Answer: It gets warmed inside the body before leaving

Hint: Air gets warmed to near body temperature in the respiratory tract.

Q: If the supply of oxygen to muscles becomes insufficient, muscles may switch to:

Answer: Anaerobic respiration

Hint: In low oxygen, muscles can release some energy by anaerobic respiration producing lactic acid.

Q: Which gas exchange direction is correct at tissues?

Answer: Oxygen diffuses from blood to cells

Hint: Cells use oxygen, so  $O_2$  diffuses into cells;  $CO_2$  diffuses from cells into blood.

Q: The term 'muscle tone' refers to:

Answer: Continuous slight contraction in resting muscles

Hint: Muscle tone is the partial contraction that keeps muscles ready and maintains posture.

Q: The rate of breathing is controlled by centers located in the:

Answer: Medulla in brainstem

Hint: Breathing centers in the medulla regulate respiration based on  $CO_2$  levels.

Q: Which of these muscles is NOT voluntary?

Answer: Muscles in the intestine wall

Hint: Intestinal muscles are smooth muscles and are involuntary.

Q: Which of the following is a correct statement about inhaled air?

Answer: It contains about 21% oxygen

Hint: Atmospheric air has about 21% oxygen and about 78% nitrogen, with variable water vapour.

Q: During shivering, the body produces heat mainly due to:

Answer: Rapid contractions of skeletal muscles

Hint: Shivering involves quick muscle contractions that generate heat to warm the body.

Q: When a person has pneumonia, which lung function is most directly affected?

Answer: Gas exchange due to fluid-filled alveoli

Hint: In pneumonia, alveoli may fill with fluid/pus, reducing oxygen diffusion into blood.

Q: A student feels tired after holding a heavy bag. This happens because muscles need continuous:

Answer: Energy supply for contraction

Hint: Holding a weight requires sustained contractions that consume ATP, leading to fatigue.

Q: Why is respiration essential for living organisms?

Answer: It releases energy needed for life processes

Hint: Energy released during respiration powers growth, movement, repair and other life activities.

Q: The circular muscle in the eyelids helps in:

Answer: Blinking

Hint: Eyelid muscles close the eyelids to protect and moisten the eyes.

Q: Which of these would most likely increase a person's breathing rate temporarily?

Answer: Running up stairs

Hint: Physical activity increases energy demand and CO<sub>2</sub> production, raising breathing rate.

Q: In human body, the muscle that helps push food down the oesophagus is:

Answer: Smooth muscle

Hint: Smooth muscles in the oesophagus create peristaltic movements to move food.

Q: Which term refers to the total movement of air into and out of lungs?

Answer: Ventilation

Hint: Ventilation is the movement of air into and out of the lungs.

Q: Which activity mainly uses voluntary skeletal muscles?

Answer: Kicking a football

Hint: Kicking uses skeletal muscles under conscious control.

Q: In humans, the left lung is slightly smaller than the right lung because:

Answer: The heart is located slightly to the left

Hint: The heart occupies space in the left thoracic cavity, making the left lung smaller.

Q: The correct reason why muscles need blood supply is:

Answer: To receive oxygen and nutrients for energy

Hint: Blood supplies oxygen and glucose to muscles for respiration and removes CO<sub>2</sub> and wastes.

Q: Which structure connects the larynx to the bronchi?

Answer: Trachea

Hint: The trachea conducts air from larynx and divides into bronchi.

Q: The endocrine system is made up of glands that secrete:

Answer: Hormones

Hint: Endocrine glands release hormones directly into the bloodstream to regulate body functions.

Q: The main product of aerobic respiration that helps maintain body temperature is:

Answer: Energy released as ATP and heat

Hint: Aerobic respiration releases energy; some is stored in ATP and some is released as heat.

Q: Which gland is often called the 'master gland' because it controls other endocrine glands?

Answer: Pituitary gland

Hint: Pituitary secretes hormones that regulate other glands, hence called master gland.

Q: Which of these is a common sign of asthma during an attack?

Answer: Wheezing sound while breathing

Hint: Narrowed airways cause wheezing and difficulty in breathing in asthma.

Q: Growth hormone is secreted by the:

Answer: Pituitary gland

Hint: Pituitary gland secretes growth hormone, important for normal growth and development.

Q: A long, continuous cough in smokers is often due to damage of:

Answer: Cilia in airways

Hint: Cilia normally sweep mucus and dust out; smoke damages cilia, leading to cough.

Q: Deficiency of growth hormone in childhood can lead to:

Answer: Dwarfism

Hint: Low growth hormone during childhood may cause stunted growth (dwarfism).

Q: If the diaphragm cannot contract properly, the most immediate problem would be:

Answer: Difficulty in inhalation

Hint: Diaphragm contraction is essential to draw air into the lungs during inhalation.

Q: Excess secretion of growth hormone in childhood can lead to:

Answer: Gigantism

Hint: Excess growth hormone can cause abnormal increase in height (gigantism).

Q: What is the correct path of air in humans?

Answer: Nostrils ? Nasal cavity ? Trachea ? Bronchi ? Bronchioles ? Alveoli

Hint: Air passes from nostrils through nasal cavity, trachea, bronchi and bronchioles to alveoli for gas exchange.

Q: Thyroxine is secreted by the:

Answer: Thyroid gland

Hint: Thyroid gland produces thyroxine which regulates metabolism.

Q: Which chamber of the human heart pumps oxygenated blood to the whole body?

Answer: Left ventricle

Hint: The left ventricle pumps oxygen-rich blood into the aorta for distribution to body tissues.

Q: Iodine is necessary for the production of:

Answer: Thyroxine

Hint: Iodine is a key component required to synthesize thyroid hormones.

Q: Which blood vessel carries oxygenated blood from lungs to heart?

Answer: Pulmonary vein

Hint: Pulmonary veins bring oxygenated blood from lungs to the left atrium.

Q: A swollen neck due to enlarged thyroid gland is called:

Answer: Goitre

Hint: Goitre often occurs due to iodine deficiency causing thyroid enlargement.

Q: Which blood vessel carries deoxygenated blood from heart to lungs?

Answer: Pulmonary artery

Hint: Pulmonary artery carries deoxygenated blood from the right ventricle to the lungs.

Q: Insulin is produced by the:

Answer: Pancreas

Hint: The pancreas (islets of Langerhans) secretes insulin to regulate blood glucose.

Q: The valve that prevents backflow of blood from left ventricle to left atrium is the:

Answer: Bicuspid (mitral) valve

Hint: The bicuspid valve lies between left atrium and left ventricle and prevents backflow during ventricular contraction.

Q: Insulin helps to:

Answer: Lower blood glucose level

Hint: Insulin promotes uptake and storage of glucose, reducing blood sugar.

Q: The main artery that carries blood from the heart to the body is the:

Answer: Aorta

Hint: Aorta is the largest artery that distributes blood from left ventricle to the body.

Q: A disease characterized by high blood sugar due to lack of insulin is:

Answer: Diabetes mellitus

Hint: Diabetes mellitus occurs when insulin is insufficient or ineffective, causing high

blood glucose.

Q: Veins usually have valves because:

Answer: Blood flows in them at low pressure

Hint: Valves in veins prevent backflow of blood and help it return to the heart against gravity.

Q: The hormone that increases blood glucose level when it falls too low is:

Answer: Glucagon

Hint: Glucagon raises blood glucose by converting stored glycogen into glucose.

Q: Which component of blood helps in clotting?

Answer: Platelets

Hint: Platelets and clotting factors help form clots to stop bleeding.

Q: Adrenal glands secrete adrenaline which prepares the body for:

Answer: Fight-or-flight response

Hint: Adrenaline increases heart rate, breathing rate and blood flow to muscles in emergencies.

Q: Red blood cells are mainly responsible for transporting:

Answer: Oxygen

Hint: RBCs contain haemoglobin which carries oxygen from lungs to tissues.

Q: Adrenaline causes the heart rate to:

Answer: Increase

Hint: Adrenaline stimulates the heart to beat faster during stress.

Q: Which blood cells fight infections?

Answer: White blood cells

Hint: WBCs protect the body by destroying pathogens and producing antibodies.

Q: The parathyroid glands mainly regulate the level of:

Answer: Calcium in blood

Hint: Parathyroid hormone helps control calcium balance important for bones and nerve function.

Q: The liquid part of blood that carries dissolved substances is called:

Answer: Plasma

Hint: Plasma is the fluid matrix of blood that transports nutrients, hormones, CO<sub>2</sub> and wastes.

Q: The gland that secretes melatonin (sleep-related hormone) is the:

Answer: Pineal gland

Hint: Pineal gland secretes melatonin which influences sleep-wake cycle.

Q: The pulse that you feel at the wrist is due to:

Answer: Rhythmic expansion of arteries

Hint: Each heartbeat sends a pressure wave through arteries, felt as pulse.

Q: The endocrine gland that is also part of the reproductive system in females is the:

Answer: Ovary

Hint: Ovaries produce hormones like oestrogen and progesterone in females.

Q: Which of the following is a correct difference between arteries and veins?

Answer: Arteries carry blood away from heart; veins carry blood toward heart

Hint: Arteries carry blood away from the heart; veins return blood to the heart.

Q: Testosterone is mainly produced by the:

Answer: Testes

Hint: Testes secrete testosterone, which regulates male secondary sexual characteristics.

Q: Capillaries are best described as:

Answer: Thin-walled vessels where exchange occurs

Hint: Capillaries have one-cell-thick walls for exchange of gases, nutrients and wastes with tissues.

Q: Oestrogen and progesterone are mainly produced by the:

Answer: Ovaries

Hint: Ovaries produce oestrogen and progesterone which regulate female reproductive functions.

Q: Blood pressure is generally measured in the:

Answer: Arteries

Hint: Blood pressure refers to the force of blood against arterial walls; it is commonly measured in the brachial artery.

Q: Hormones are transported to target organs through:

Answer: Blood

Hint: Hormones are released into blood and carried to target tissues.

Q: Which part of the heart receives oxygen-poor blood from the body?

Answer: Right atrium

Hint: The right atrium receives deoxygenated blood from the body through the vena cava.

Q: Which of these is an example of an endocrine gland?

Answer: Thyroid

Hint: Thyroid is ductless and releases hormones into blood; others have ducts and secrete through them.

Q: Coronary arteries supply blood to the:

Answer: Heart muscle

Hint: Coronary arteries provide oxygen and nutrients to the heart muscle itself.

Q: Endocrine glands are called ductless glands because they:

Answer: Release hormones directly into blood

Hint: Endocrine glands have no ducts; hormones enter bloodstream directly.

Q: The correct term for circulation in which blood passes through the heart twice in one cycle is:

Answer: Double circulation

Hint: In humans, blood goes heart ? lungs ? heart ? body, so it passes through heart twice.

Q: Which gland controls metabolism rate in the body?

Answer: Thyroid gland

Q: Which of the following is NOT normally found in human blood plasma?

Answer: Starch granules

Hint: Plasma carries glucose, hormones and urea, but not undigested starch granules.

Q: A person with hypothyroidism may show:

Answer: Slow metabolism and weight gain

Hint: Low thyroid hormone reduces metabolic rate, leading to tiredness and weight gain (basic concept).

Q: A person with low haemoglobin is most likely suffering from:

Answer: Anaemia

Hint: Anaemia often results from reduced haemoglobin or RBC count, decreasing oxygen-carrying capacity.

Q: A person with hyperthyroidism may show:

Answer: Fast metabolism and weight loss

Hint: Excess thyroid hormone increases metabolic rate, causing weight loss and restlessness.

Q: Which of these is a correct function of lymph?

Answer: Returns excess tissue fluid to blood and transports fats

Hint: Lymph drains excess fluid from tissues and also carries absorbed fats from the intestine.

Q: Which hormone helps in development of secondary sexual characters in boys?

Answer: Testosterone

Hint: Testosterone leads to changes like deeper voice and facial hair during puberty.

Q: The universal donor blood group is:

Answer: O

Hint: Group O blood can be given to many recipients in ABO system because it lacks A and B antigens (Rh factor not considered here).

Q: Which hormone helps in development of secondary sexual characters in girls?

Answer: Oestrogen

Hint: Oestrogen contributes to development of breasts and other female secondary sexual characters.

Q: The universal recipient blood group is:

Answer: AB

Hint: AB group can receive blood from A, B, AB, and O in ABO system because it has both A and B antigens.

Q: The gland that secretes insulin and glucagon is an example of a gland with both endocrine and exocrine functions. It is the:

Answer: Pancreas

Hint: Pancreas has endocrine part (hormones) and exocrine part (digestive enzymes).

Q: Which statement about arteries is correct?

Answer: They have thick, elastic walls

Hint: Arteries carry blood at high pressure, so their walls are thick and elastic.

Q: Feedback mechanism in hormone control means:

Answer: Hormone levels regulate their own secretion

Hint: Negative feedback maintains stable hormone levels by adjusting secretion based on need.

Q: Why does blood appear red?

Answer: Due to haemoglobin pigment

Hint: Haemoglobin in RBCs gives blood its red colour; oxygenated blood is brighter red.

Q: The thymus gland is related to:

Answer: Development of immunity in children

Hint: Thymus helps in maturation of certain immune cells (T-lymphocytes) especially in childhood.

Q: The main function of the heart is to:

Answer: Pump blood throughout the body

Hint: The heart acts as a muscular pump maintaining blood circulation.

Q: Which hormone is commonly linked with 'stress' and produced by adrenal glands?

Answer: Adrenaline

Hint: Adrenaline is released during stress/emergencies to prepare the body for action.

Q: Which layer of the heart prevents mixing of oxygenated and deoxygenated blood between left and right sides?

Answer: Septum

Hint: The septum separates the left and right sides of the heart and prevents mixing of blood.

Q: Which gland is located in the neck region in front of the trachea?

Answer: Thyroid gland

Hint: Thyroid gland lies in the neck and secretes thyroxine.

Q: Atherosclerosis mainly affects blood flow by:

Answer: Narrowing arteries due to plaque

Hint: Plaque deposition narrows arteries and reduces blood flow, increasing risk of heart problems.

Q: The pituitary gland is located at the base of the:

Answer: Brain

Hint: Pituitary is attached to the underside of the brain and controls several hormones.

Q: Which is the correct order of blood flow through the heart (starting from body returning blood)?

Answer: Vena cava ? Right atrium ? Right ventricle ? Pulmonary artery

Hint: Deoxygenated blood returns via vena cava to right atrium, then right ventricle, then to lungs via pulmonary artery.

Q: Insulin deficiency affects the metabolism of:

Answer: Carbohydrates (glucose)

Hint: Insulin regulates how cells use and store glucose, a key carbohydrate.

Q: Why are capillaries called 'exchange vessels'?

Answer: They allow exchange of gases and nutrients with tissues

Hint: Their thin walls and slow flow facilitate diffusion of substances between blood and body cells.

Q: Which hormone is likely to be given as injection to some diabetics?

Answer: Insulin

Hint: Some diabetics require insulin injections to control blood sugar levels.

Q: Which of these would most directly increase heart rate in an emergency?

Answer: Adrenaline

Hint: Adrenaline (from adrenal glands) increases heart rate and prepares body for 'fight or flight'.

Q: Which change is most likely during 'fight-or-flight'?

Answer: Increase in breathing rate

Hint: Adrenaline increases breathing rate and heart rate to supply more oxygen to muscles.

Q: When blood clots, a protein called \_\_\_\_\_ forms threads to trap blood cells.

Answer: Fibrin

Hint: Fibrin threads form a mesh that traps blood cells and platelets to form a clot.

Q: Which gland secretes hormones that regulate reproductive functions like ovulation?

Answer: Pituitary gland

Hint: Pituitary secretes FSH and LH which influence ovary/testes functions (basic school level).

Q: A long-term deficiency of iron is likely to reduce the number of:

Answer: Functional haemoglobin molecules in RBCs

Hint: Iron is required to form haemoglobin; deficiency reduces oxygen-carrying capacity of RBCs.

Q: Hormones generally act more slowly than nerve impulses because they:

Answer: Travel through blood and need time to reach target

Hint: Hormones circulate in blood and may take longer to produce effects compared to nerve impulses.

Q: Which vessel has the slowest blood flow allowing maximum exchange?

Answer: Capillary

Hint: Blood flows slowly in capillaries, providing time for diffusion and exchange.

Q: The endocrine system mainly helps in:

Answer: Long-term regulation like growth and metabolism

Hint: Hormones regulate growth, metabolism, reproduction and other long-term processes.

Q: What is the correct statement about lymph nodes?

Answer: They filter lymph and contain immune cells

Hint: Lymph nodes filter pathogens from lymph and house lymphocytes involved in immunity.

Q: Which of the following is NOT an endocrine hormone?

Answer: Saliva

Hint: Saliva is a digestive secretion from salivary glands (exocrine), not a hormone.

Q: Which blood component carries hormones to target organs?

Answer: Plasma

Hint: Hormones are transported dissolved in plasma to reach their target tissues.

Q: If iodine intake is low, the body may have difficulty making enough:

Answer: Thyroid hormone

Hint: Iodine is essential for thyroid hormone synthesis; deficiency can cause goitre.

Q: The 'lub-dub' sound of heart is mainly due to:

Answer: Closing of heart valves

Hint: Heart sounds are produced when valves close, preventing backflow of blood.

Q: Which hormone helps store excess glucose as glycogen in the liver?

Answer: Insulin

Hint: Insulin promotes storage of glucose as glycogen in liver and muscles.

Q: Blood from the left side of the heart goes to:

Answer: Body tissues (systemic circulation)

Hint: The left side pumps oxygenated blood to the entire body via systemic circulation.

Q: Which condition is most directly linked to deficiency of insulin action?

Answer: Increased glucose in blood

Hint: Without adequate insulin action, cells cannot take up glucose effectively, causing high blood sugar.

Q: Which statement about pulmonary circulation is correct?

Answer: It carries blood between heart and lungs

Hint: Pulmonary circulation connects the heart and lungs for oxygenation of blood.

Q: Which hormone influences the basal metabolic rate (BMR)?

Answer: Thyroxine

Hint: Thyroxine controls the rate of metabolism in cells, affecting BMR.

Q: A sudden blockage in a coronary artery can lead to:

Answer: Heart attack (myocardial infarction)

Hint: Coronary artery blockage reduces oxygen to heart muscle, causing damage (heart attack).

Q: The glands located on top of each kidney are the:

Answer: Adrenal glands

Hint: Adrenal glands sit above kidneys and secrete hormones like adrenaline and cortisol (basic).

Q: Which of these is most likely to increase blood pressure?

Answer: Narrowing of arteries

Hint: Narrow arteries increase resistance to blood flow, raising blood pressure.

Q: The endocrine glands that secrete sex hormones in males are:

Answer: Testes

Hint: Testes secrete testosterone, responsible for male reproductive development.

Q: Which statement about platelets is TRUE?

Answer: They are cell fragments that help in clotting

Hint: Platelets are fragments involved in clotting and wound repair.

Q: Hormones are needed because they coordinate activities of body organs by acting as:

Answer: Chemical messengers

Hint: Hormones are chemical messengers that regulate functions of target organs.

Q: What is the main difference between serum and plasma?

Answer: Serum is plasma without clotting factors

Hint: Serum is the fluid remaining after clotting; plasma contains clotting factors like fibrinogen.

Q: Which gland is responsible for regulating calcium balance along with parathyroid?

Answer: Thyroid (calcitonin)

Hint: Thyroid produces calcitonin which helps regulate calcium levels (basic concept alongside parathyroid hormone).

Q: The oxygenated blood in humans is prevented from mixing with deoxygenated blood mainly because:

Answer: Heart has four chambers separated by septa

Hint: A four-chambered heart keeps the two types of blood separated for efficient circulation.

Q: An overdose of thyroid hormone may cause a person to feel:

Answer: Restless with rapid heartbeat

Hint: Excess thyroid hormone increases metabolic activity, causing nervousness and rapid heartbeat.

Q: Which of the following is an example of a valve in the heart?

Answer: Tricuspid valve

Hint: Tricuspid valve is between right atrium and right ventricle and prevents backflow.

Q: Which statement about hormones is correct?

Answer: They act on specific target organs

Hint: Hormones affect specific tissues that have receptors for them.

Q: Which vessel brings deoxygenated blood from upper body to heart?

Answer: Superior vena cava

Hint: Superior vena cava returns deoxygenated blood from head and upper limbs to right atrium.

Q: The male reproductive cell is called a:

Answer: Sperm

Hint: Sperm is the male gamete produced in the testes.

Q: In human blood, antibodies are mainly found in:

Answer: Plasma

Hint: Antibodies are proteins present in plasma that help fight infections.

Q: The female reproductive cell is called an:

Answer: Ovum

Hint: Ovum (egg) is the female gamete produced in the ovaries.

Q: Which event directly causes blood to enter the ventricles from atria?

Answer: Atrial contraction when atrioventricular valves are open

Hint: Atrial contraction pushes blood into ventricles through open AV valves.

Q: Fusion of sperm and ovum is called:

Answer: Fertilization

Hint: Fertilization forms a zygote by joining male and female gametes.

Q: A healthy adult's resting pulse rate is typically about:

Answer: 72 beats per minute

Hint: At rest, the average pulse rate is about 72 bpm (may vary with age and fitness).

Q: The cell formed immediately after fertilization is the:

Answer: Zygote

Hint: Zygote is the first cell of the new individual formed after fertilization.

Q: If valves in veins are damaged, it may lead to:

Answer: Backflow and pooling of blood (varicose veins)

Hint: Damaged venous valves can cause blood to pool, leading to varicose veins.

Q: In humans, fertilization usually occurs in the:

Answer: Fallopian tube (oviduct)

Hint: Fertilization commonly takes place in the oviduct (fallopian tube).

Q: Which blood component is produced in bone marrow?

Answer: Red blood cells

Hint: Blood cells, including RBCs and many WBCs, are formed in bone marrow.

Q: The organ where the embryo implants and develops is the:

Answer: Uterus

Hint: After fertilization, the embryo implants in the uterine wall for development.

Q: The basic structural and functional unit of the nervous system is the:

Answer: Neuron

Hint: Neurons are specialized cells that transmit nerve impulses.

Q: The structure that connects developing fetus to the mother and allows exchange of nutrients is the:

Answer: Placenta

Hint: Placenta is the organ of exchange between mother and fetus for nutrients, oxygen and wastes.

Q: Which part of a neuron carries impulses away from the cell body?

Answer: Axon

Hint: Axon conducts impulses away from the cell body to other neurons or muscles.

Q: The umbilical cord mainly contains:

Answer: Blood vessels connecting fetus to placenta

Hint: Umbilical cord has blood vessels that carry materials between fetus and placenta.

Q: Dendrites mainly function to:

Answer: Receive impulses and carry them to the cell body

Q: Menstruation is the monthly shedding of the lining of the:

Answer: Uterus

Hint: If fertilization does not occur, the uterine lining breaks down and is shed as menstruation.

Q: A small gap between two neurons where impulse passes is called:

Answer: Synapse

Hint: At synapse, impulses are transmitted using chemicals called neurotransmitters.

Q: The average length of the menstrual cycle in many females is about:

Answer: 28 days

Hint: A typical menstrual cycle is around 28 days, though it can vary.

Q: The brain and spinal cord together form the:

Answer: Central nervous system

Hint: CNS includes brain and spinal cord which control and coordinate activities.

Q: Ovulation means:

Answer: Release of an egg from the ovary

Hint: Ovulation is the release of a mature ovum from an ovary.

Q: Nerves that carry messages from sense organs to CNS are called:

Answer: Sensory nerves

Hint: Sensory (afferent) nerves carry impulses toward the CNS.

Q: Puberty is the stage when:

Answer: Reproductive organs mature and secondary sexual characters appear

Hint: Puberty involves hormonal changes leading to maturity of reproductive organs and physical changes.

Q: Nerves that carry messages from CNS to muscles are called:

Answer: Motor nerves

Hint: Motor (efferent) nerves carry commands from CNS to effectors like muscles.

Q: A visible change in boys during puberty is:

Answer: Deepening of voice

Hint: Testosterone causes voice deepening and other male secondary sexual changes.

Q: A reflex action is best described as:

Answer: A quick, involuntary response to a stimulus

Hint: Reflexes protect the body by producing rapid automatic responses.

Q: A visible change in girls during puberty is:

Answer: Development of breasts

Hint: Oestrogen causes development of breasts and other female secondary sexual changes.

Q: Reflex actions are mainly controlled by the:

Answer: Spinal cord

Hint: Spinal cord mediates many reflexes for quick response without waiting for brain processing.

Q: Sperms are produced in the:

Answer: Testes

Hint: Testes produce sperms and also secrete testosterone.

Q: Which part of the brain controls voluntary actions and thinking?

Answer: Cerebrum

Hint: Cerebrum is responsible for intelligence, memory, learning and voluntary actions.

Q: Ova are produced in the:

Answer: Ovaries

Hint: Ovaries produce ova (eggs) and female sex hormones.

Q: Which part of the brain helps maintain balance and posture?

Answer: Cerebellum

Hint: Cerebellum coordinates muscle activity and maintains balance.

Q: The tube that carries sperms from testes is the:

Answer: Vas deferens

Hint: Vas deferens transports sperms from testes toward the urethra.

Q: The medulla in the brain mainly controls:

Answer: Involuntary actions like breathing and heartbeat

Hint: Medulla regulates involuntary functions such as breathing, blood pressure and heart rate.

Q: The function of the prostate gland (basic level) is to:

Answer: Add fluid to semen to help sperm movement

Hint: Prostate secretes fluid that forms part of semen and supports sperm mobility.

Q: The protective coverings of the brain are called:

Answer: Meninges

Hint: Meninges protect the brain and contain cerebrospinal fluid.

Q: The female reproductive organ where the baby develops is the:

Answer: Uterus

Hint: The uterus is the muscular organ that supports embryo and fetal development.

Q: Cerebrospinal fluid (CSF) mainly helps by:

Answer: Cushioning the brain and spinal cord

Hint: CSF acts as a shock absorber and provides protection to CNS.

Q: The cervix is the narrow opening between the uterus and the:

Answer: Vagina

Hint: Cervix is the lower part of uterus that opens into the vagina.

Q: The pathway of a reflex action is called the:

Answer: Reflex arc

Hint: Reflex arc includes receptor, sensory neuron, CNS, motor neuron and effector.

Q: The process of giving birth to a baby is called:

Answer: Parturition

Hint: Parturition is the process of childbirth.

Q: The structure that receives a stimulus is called a:

Answer: Receptor

Hint: Receptors detect changes (stimuli) and convert them into nerve impulses.

Q: Which of the following is a method of contraception?

Answer: Condom

Hint: Condoms prevent sperm from entering the female reproductive tract and also reduce spread of STIs.

Q: Muscles or glands that respond to nerve impulses are called:

Answer: Effectors

Q: A contraceptive method that prevents implantation by changing uterine conditions is:

Answer: IUD (Copper-T)

Hint: IUDs like Copper-T prevent fertilization/implantation and act as a long-term contraceptive.

Q: Myelin sheath around axons mainly helps to:

Answer: Speed up nerve impulse transmission

Hint: Myelin acts as an insulator, increasing the speed of impulse conduction.

Q: Which practice helps prevent sexually transmitted infections (STIs)?

Answer: Using condoms and maintaining hygiene

Hint: Barrier methods like condoms reduce transmission risk of STIs.

Q: Which of these is an example of an involuntary action?

Answer: Heartbeat

Hint: Heartbeat is controlled by involuntary nerves and does not require conscious control.

Q: In human reproduction, the stage after zygote that develops in the uterus is the:

Answer: Embryo

Hint: Zygote divides repeatedly to form an embryo which implants in uterus.

Q: Autonomic nervous system mainly controls:

Answer: Involuntary functions of internal organs

Hint: Autonomic system regulates activities like heartbeat, digestion and breathing.

Q: After a few months of development, the embryo is called a:

Answer: Fetus

Hint: A developing human is called a fetus after the early embryonic stage.

Q: A student touches a hot object and quickly withdraws the hand. The 'withdrawal' is a:

Answer: Reflex action

Hint: Withdrawal reflex protects from injury; it is rapid and involuntary.

Q: Which of these is an example of internal fertilization?

Answer: Humans

Hint: In humans, fertilization occurs inside the female body, hence internal fertilization.

Q: Which of these is NOT part of a typical reflex arc?

Answer: Cerebrum involvement for decision-making

Hint: Most simple reflexes are mediated by spinal cord without requiring cerebrum decision-making.

Q: The main function of testes is to produce sperms and secrete:

Answer: Testosterone

Hint: Testes produce testosterone that controls male reproductive development.

Q: The long nerve cord protected by vertebral column is the:

Answer: Spinal cord

Hint: Spinal cord runs within vertebral column and relays impulses between brain and body.

Q: The main function of ovaries is to produce ova and secrete:

Answer: Oestrogen and progesterone

Hint: Ovaries produce female sex hormones that regulate menstrual cycle and development.

Q: Which structure connects the brain to the spinal cord?

Answer: Brainstem

Hint: The brainstem (including medulla) links brain with spinal cord and controls vital functions.

Q: The thick muscular wall of uterus is helpful because it:

Answer: Supports fetus and contracts during childbirth

Hint: Uterine muscles support pregnancy and contract to deliver the baby.

Q: Which of the following best explains why nervous responses are fast?

Answer: Electrical impulses travel along neurons quickly

Hint: Nerve impulses are electrical and travel rapidly along nerve fibres.

Q: The stage in which the uterine lining is rebuilt after menstruation (school level) is mainly influenced by:

Answer: Oestrogen

Hint: Oestrogen helps rebuild the uterine lining during the cycle.

Q: In the sense organ eye, the part that controls the amount of light entering is the:

Answer: Iris

Hint: Iris adjusts pupil size to regulate light entry.

Q: Which event most directly marks the beginning of menstruation in a cycle?

Answer: Shedding of uterine lining

Hint: Menstruation is the breakdown and shedding of the uterine lining.

Q: The part of the eye where image is formed is the:

Answer: Retina

Hint: Retina contains photoreceptor cells and forms the image which is sent via optic nerve.

Q: If fertilization occurs, menstruation usually:

Answer: Stops because uterine lining is maintained

Hint: Pregnancy hormones maintain the uterine lining, so menstruation does not occur.

Q: The nerve that carries visual information from eye to brain is the:

Answer: Optic nerve

Hint: Optic nerve transmits impulses from retina to the brain.

Q: Which of these changes at puberty occurs in both boys and girls?

Answer: Increase in height (growth spurt)

Hint: Both sexes commonly experience rapid height increase due to hormonal changes.

Q: The bony case that protects the brain is the:

Answer: Skull

Hint: The skull encloses and protects the brain from injury.

Q: The release of the egg from an ovary is controlled by hormones released from the:

Answer: Pituitary gland

Hint: Pituitary hormones (FSH and LH) regulate ovulation and other reproductive processes.

Q: In the ear, which structure helps in maintaining balance?

Answer: Semicircular canals

Hint: Semicircular canals detect head movement and help maintain balance.

Q: In IVF (test-tube baby), fertilization is done:

Answer: Outside the body in a lab and then embryo is placed in uterus

Hint: In IVF, egg and sperm are combined in a lab and the embryo is transferred to the uterus.

Q: Which part of the ear converts sound vibrations to nerve impulses?

Answer: Cochlea

Hint: The cochlea contains sensory cells that convert vibrations into nerve impulses.

Q: Semen is a mixture of sperms and secretions from glands such as:

Answer: Prostate and seminal vesicles

Hint: Gland secretions provide nutrients and fluid medium for sperm movement.

Q: The 'fight-or-flight' response is coordinated by the nervous system and the:

Answer: Endocrine system

Hint: Nervous system triggers adrenal glands to release adrenaline for rapid response.

Q: Which structure receives the released ovum from the ovary?

Answer: Fimbriae of fallopian tube

Hint: Fimbriae help sweep the ovum into the fallopian tube.

Q: Which of these is a correct pairing of brain part and function?

Answer:

Hint: Cerebellum coordinates balance; cerebrum controls thinking; medulla controls involuntary actions.

Q: The fertilized egg attaches to the uterus wall in a process called:

Answer: Implantation

Hint: Implantation is the attachment of embryo to uterine wall for nourishment.

Q: Why are sensory and motor neurons both needed in a reflex action?

Answer: To carry impulse to CNS and then to effector

Hint: Sensory neuron brings message from receptor; motor neuron carries response to muscles/glands.

Q: The safest time to avoid pregnancy by natural method depends on understanding of:

Answer: Ovulation period

Hint: Fertile window is around ovulation; knowledge of cycle helps in natural methods (not fully reliable).

Q: A person who has difficulty coordinating movements may have a problem in the:

Answer: Cerebellum

Hint: Cerebellum coordinates muscular activity; damage affects coordination and balance.

Q: Which of these is a secondary sexual character in boys?

Answer: Growth of facial hair

Hint: Facial hair growth is controlled by testosterone at puberty.

Q: Which of the following is a voluntary action?

Answer: Writing with a pen

Hint: Writing is under conscious control, while heartbeat and peristalsis are involuntary.

Q: Which of these is a secondary sexual character in girls?

Answer: Widening of hips

Hint: Oestrogen contributes to widening of hips and other changes at puberty.

Q: The junction where a neuron meets a muscle fibre is called the:

Answer: Neuromuscular junction

Hint: At the neuromuscular junction, motor neuron signals cause muscle contraction.

Q: Which term refers to the time taken by sperm to reach the egg after ejaculation (conceptually) requiring movement through:

Answer: Female reproductive tract

Hint: Sperms travel through the female reproductive tract to reach the fallopian tube where fertilization may occur.

Q: Neurotransmitters are:

Answer: Chemicals that transmit signals across synapses

Hint: Neurotransmitters carry the impulse from one neuron to another across a synapse.

Q: In humans, the sex of the baby is determined by the chromosome carried by the:

Answer: Sperm

Hint: Ovum carries X always; sperm carries X or Y, so sperm determines sex (XX girl, XY boy).

Q: Which of these best describes the role of the spinal cord?

Answer: Relays information and controls reflexes

Hint: Spinal cord conducts impulses between brain and body and mediates many reflex actions.

Q: Which of the following is NOT a reproductive hormone?

Answer: Pepsin

Hint: Pepsin is a digestive enzyme; the others are reproductive hormones.

Q: If the optic nerve is damaged, which sense is most directly affected?

Answer: Vision

Hint: Optic nerve carries visual impulses; damage impairs vision.

Q: The main purpose of the placenta is to:

Answer: Provide nutrients/oxygen and remove wastes for fetus

Hint: Placenta allows exchange between maternal and fetal blood without direct mixing.

Q: The outer white part of the eyeball is called:

Answer: Sclera

Hint: Sclera is the tough protective outer layer of the eye.

Q: Which statement about menstruation is correct?

Answer: It occurs only in females and starts at puberty

Hint: Menstruation begins at puberty and occurs monthly in females until menopause.

Q: Which part of the eye focuses light on the retina by changing its curvature?

Answer: Lens

Hint: The lens changes shape (accommodation) to focus images at different distances on retina.

Q: Which of these would most likely delay puberty?

Answer: Malnutrition and poor health

Hint: Poor nutrition and health can delay hormonal changes and growth related to puberty.

Q: A 'blind spot' in the eye is the region where:

Answer: Optic nerve leaves the eye and no photoreceptors are present

Hint: At the optic disc, the optic nerve exits and there are no rods or cones, so no image is formed.

Q: The phase of pregnancy during which major organs begin forming is the:

Answer: Embryonic stage

Hint: Organ formation begins in early embryonic development.

Q: Which receptor type detects smell in humans?

Answer: Olfactory receptors in nasal cavity

Hint: Smell is detected by olfactory receptors located in the upper nasal cavity.

Q: A barrier method of contraception also helps in preventing:

Answer: STIs

Hint: Barrier methods like condoms reduce exchange of body fluids, lowering STI risk.

Q: The sensation of taste is mainly detected by:

Answer: Taste buds on the tongue

Hint: Taste buds contain gustatory receptors that detect dissolved substances in food.

Q: The body's defense system against disease-causing organisms is called the:

Answer: Immune system

Hint: The immune system protects the body by recognizing and destroying pathogens.

Q: Which part of the tongue is most sensitive to bitter taste in basic school mapping?

Answer: Back of the tongue

Hint: In the traditional school-level taste map, bitter taste is associated with the back of the tongue.

Q: Which blood cells are mainly responsible for destroying germs and producing antibodies?

Answer: White blood cells

Hint: White blood cells (WBCs) are key immune cells involved in fighting infections.

Q: Which of the following protects the spinal cord?

Answer: Vertebral column

Hint: The vertebral column encloses the spinal cord and protects it from injury.

Q: Antibodies are proteins that help by:

Answer: Identifying and neutralizing pathogens

Hint: Antibodies bind to specific antigens on microbes, helping the immune system destroy them.

Q: If a person loses the ability to sense touch in the fingertips, the most directly involved receptors are in the:

Answer: Skin

Hint: Touch receptors (mechanoreceptors) are present in the skin, especially in fingertips.

Q: The watery fluid that circulates in lymph vessels is called:

Answer: Lymph

Hint: Lymph is tissue fluid that enters lymph vessels and returns to blood circulation.

Q: Which statement about neurons is correct?

Answer: They transmit messages in the form of nerve impulses

Hint: Neurons conduct impulses to coordinate body responses to stimuli.

Q: Lymph is similar to blood plasma but generally has:

Answer: No red blood cells

Hint: Lymph usually lacks RBCs and has fewer proteins compared to plasma.

Q: The central processing unit of the nervous system is the:

Answer: Brain

Hint: The brain processes sensory information and sends instructions to the body.

Q: Lymph nodes mainly function to:

Answer: Filter lymph and trap germs

Hint: Lymph nodes filter lymph and contain lymphocytes that fight infections.

Q: The main excretory organs in humans are the:

Answer: Kidneys

Hint: Kidneys filter blood to remove nitrogenous wastes and excess water, forming urine.

Q: Tonsils help protect the body by:

Answer: Trapping germs entering through mouth and nose

Hint: Tonsils contain immune tissue that helps stop pathogens at entry points.

Q: The functional unit of the kidney is called:

Answer: Nephron

Hint: Nephron is the microscopic unit responsible for filtration and urine formation.

Q: The first line of defense of the body is:

Answer: Skin and mucous membranes

Hint: Skin and mucous membranes act as barriers preventing entry of pathogens.

Q: Filtration of blood in a nephron occurs mainly in the:

Answer: Glomerulus

Q: The cup-shaped structure that collects filtrate from the glomerulus is the:

Answer: Bowman's capsule

Q: Urea is formed mainly in the:

Answer: Liver

Hint: Urea is produced in the liver from excess amino acids (protein metabolism) and then removed by kidneys.

Q: The tube that carries urine from kidney to urinary bladder is the:

Answer: Ureter

Hint: Ureters carry urine from each kidney to the urinary bladder.

Q: Urine is stored temporarily in the:

Answer: Urinary bladder

Hint: The urinary bladder stores urine until it is expelled through the urethra.

Q: The tube through which urine is expelled out of the body is the:

Answer: Urethra

Hint: Urethra carries urine from the bladder to outside the body.

Q: The process of removing metabolic wastes from the body is called:

Answer: Excretion

Hint: Excretion removes metabolic wastes like urea, excess salts and water; egestion removes undigested food.

Q: Which of these is a nitrogenous waste in humans?

Answer: Urea

Hint: Urea is produced during protein metabolism and excreted by kidneys.

Q: Reabsorption in nephrons means:

Answer: Useful substances are taken back into blood

Hint: During reabsorption, glucose, amino acids, and much water are returned from tubules to blood.

Q: Which substance is normally reabsorbed completely in a healthy kidney?

Answer: Glucose

Hint: Glucose is usually reabsorbed fully; presence of glucose in urine can indicate diabetes.

Q: Excess water in the body is removed mainly by:

Answer: Kidneys as urine

Hint: Kidneys regulate water balance by adjusting the volume of urine.

Q: Which organ also excretes water vapour and carbon dioxide?

Answer: Lungs

Hint: Lungs excrete CO<sub>2</sub> and water vapour during exhalation.

Q: Which organ excretes sweat containing water, salts and small amounts of urea?

Answer: Skin

Hint: Sweat glands in skin help in excretion and temperature regulation.

Q: A patient may need dialysis when:

Answer: Kidneys fail to filter blood properly

Hint: Dialysis removes wastes from blood when kidneys are not functioning adequately.

Q: Dialysis works on the principle of:

Answer: Diffusion across a semi-permeable membrane

Hint: In dialysis, wastes diffuse from blood into dialysis fluid across a membrane.

Q: Which of these is most likely to be high in the urine of a person with diabetes?

Answer: Glucose

Hint: Diabetes can cause excess glucose to spill into urine when blood glucose is high.

Q: The kidneys help maintain homeostasis by regulating:

Answer: Water and salt balance

Hint: Kidneys regulate water, ions and acid-base balance, maintaining a stable internal environment.

Q: The renal artery brings \_\_\_\_\_ to the kidneys.

Answer: Blood containing wastes

Hint: Renal artery supplies blood to kidneys for filtration.

Q: The renal vein carries \_\_\_\_\_ away from the kidneys.

Answer: Filtered blood

Hint: Renal vein returns filtered blood to the circulatory system.

Q: The part of nephron that increases concentration of urine by reabsorbing water and salts (school level) is the:

Answer: Loop of Henle

Hint: The loop of Henle helps concentrate urine by creating an osmotic gradient.

Q: Which hormone helps kidneys reabsorb more water when the body is dehydrated?

Answer: ADH (vasopressin)

Hint: ADH increases water reabsorption in kidney tubules, reducing urine volume.

Q: If ADH secretion decreases, the immediate effect on urine volume is:

Answer: Urine volume increases

Hint: Less ADH means less water reabsorption, producing larger volume of dilute urine.

Q: Kidney stones are often formed due to deposition of salts like:

Answer: Calcium oxalate

Hint: Kidney stones commonly involve calcium salts that crystallize in urinary tract.

Q: Which statement about urine is correct in a healthy person?

Answer: It contains water, urea and salts

Hint: Normal urine mainly has water, urea and dissolved salts; proteins/RBCs usually indicate problems.

Q: The urine formed in nephrons first collects in the:

Answer: Collecting duct

Hint: Filtrate passes through tubules and finally enters collecting ducts before reaching renal pelvis.

Q: The funnel-shaped part of the kidney that collects urine before it enters ureter is the:

Answer: Renal pelvis

Hint: Renal pelvis collects urine and directs it to the ureter.

Q: The process of removing excess salts and water as sweat is also a form of:

Answer: Excretion

Hint: Sweating helps remove water and salts, aiding excretion and cooling.

Q: Which of the following is NOT an excretory product in humans?

Answer: Oxygen

Hint: Oxygen is a useful gas taken in; urea, CO<sub>2</sub> and excess salts are excretory wastes.

Q: What is the correct sequence of urine flow?

Answer: Kidney ? Ureter ? Urinary bladder ? Urethra

Hint: Urine is produced in kidneys, carried by ureters to bladder, and expelled through urethra.

Q: In which part of the nephron does most reabsorption of useful substances occur?

Answer: Proximal convoluted tubule

Hint: Most reabsorption happens in proximal tubule, where glucose, amino acids and much water are reclaimed.

Q: Which waste is removed from blood in kidneys but is produced mainly by breakdown of proteins?

Answer: Urea

Hint: Protein metabolism produces ammonia which is converted to urea in liver and excreted by kidneys.

Q: If the kidneys stop working, which substance will accumulate in blood most dangerously?

Answer: Urea

Hint: Kidney failure leads to buildup of urea and other wastes (uremia), which is harmful.

Q: The skin helps in temperature regulation mainly through:

Answer: Sweating and evaporation

Hint: Evaporation of sweat cools the body and helps maintain temperature.

Q: Which of these is a correct statement about excretion and egestion?

Answer: Excretion removes metabolic wastes; egestion removes undigested food

Hint: Excretion is removal of metabolic wastes; egestion is elimination of undigested matter.

Q: Which structure is a network of capillaries where filtration begins in nephron?

Answer: Glomerulus

Hint: The glomerulus is a tuft of capillaries that filters blood under pressure.

Q: An increase in water intake generally results in:

Answer: More dilute urine

Hint: When water intake increases, kidneys excrete excess water, producing larger volume of dilute urine.

Q: A student says 'kidneys filter urine'. The correct statement is:

Answer: Kidneys filter blood to form urine

Hint: Urine is formed from filtered blood; kidneys do not filter already formed urine.

Q: Which of these helps prevent loss of essential proteins into urine under normal conditions?

Answer: Selective filtration in glomerulus

Hint: Glomerular filtration barrier prevents large proteins from passing into filtrate.

Q: A urinary tract infection (UTI) commonly affects the:

Answer: Urinary bladder and urethra

Hint: UTIs often involve bladder and urethra, causing burning sensation during urination.

Q: Which is the correct reason why urea is excreted?

Answer: It is toxic if it accumulates

Hint: Nitrogenous wastes like urea are harmful in high concentration, so they must be removed.

Q: The kidneys regulate blood pH mainly by controlling excretion of:

Answer: Hydrogen ions and bicarbonate

Q: Which lifestyle habit can help reduce risk of kidney stones?

Answer: Drinking enough water

Hint: Adequate water intake dilutes urine and reduces crystallization of salts.

Q: If a person sweats a lot and does not drink water, the likely kidney response is:

Answer: Produce less urine

Hint: Dehydration triggers more water reabsorption; kidneys reduce urine volume to conserve water.

Q: Which of these is NOT a part of the human urinary system?

Answer: Trachea

Hint: Trachea belongs to respiratory system; urinary system includes kidneys, ureters, bladder and urethra.

Q: The main role of ureters is to:

Answer: Transport urine from kidneys to bladder

Hint: Ureters are muscular tubes that carry urine to the urinary bladder by peristalsis.

Q: Which action directly helps kidneys in removing wastes efficiently?

Answer: Maintaining normal blood pressure and hydration

Hint: Adequate blood flow and hydration support filtration and waste removal by kidneys.

Q: A person with severe diarrhea is at risk of dehydration. Kidney output will likely become:

Answer: Low and concentrated

Hint: When dehydrated, kidneys conserve water, producing smaller volume of concentrated urine.

Q: Which term refers to the removal of excess water by kidneys to maintain internal balance?

Answer: Osmoregulation

Hint: Osmoregulation is maintenance of water and salt balance in the body.

Q: How many bones are present in the adult human skeleton?

Answer: 206

Hint: An adult human skeleton typically has 206 bones.

Q: The main function of the skeleton is to provide:

Answer: Support and shape to the body

Hint: Bones form a framework that supports the body and gives it shape.

Q: The skull mainly protects the:

Answer: Brain

Hint: The skull encloses the brain and protects it from injury.

Q: The rib cage mainly protects the:

Answer: Heart and lungs

Hint: Ribs form a cage that protects vital organs like heart and lungs.

Q: The vertebral column protects the:

Answer: Spinal cord

Hint: Vertebrae surround the spinal cord, protecting it and supporting the body.

Q: Which type of joint allows movement in all directions?

Answer: Ball-and-socket joint

Hint: Ball-and-socket joints (shoulder, hip) allow movement in many directions.

Q: Salivary amylase begins digestion of which nutrient in the mouth?

Answer: Starch

Hint: Salivary amylase (ptyalin) acts on starch and starts carbohydrate digestion in the mouth.

Q: The joint in the elbow is a:

Answer: Hinge joint

Hint: Elbow allows movement mainly in one plane like a hinge.

Q: Which movement pushes food down the oesophagus to the stomach?

Answer: Peristalsis

Hint: Peristalsis is the wave-like contraction of muscles that moves food through the alimentary canal.

Q: The joint between the skull bones is an example of a:

Answer: Fixed joint

Hint: Skull bones are joined by immovable (fixed) joints for protection.

Q: Hydrochloric acid in the stomach mainly helps by:

Answer: Providing acidic medium for enzymes and killing germs

Hint: HCl kills many microbes and provides the acidic medium needed for pepsin to work.

Q: Ligaments connect:

Answer: Bone to bone

Hint: Ligaments are strong tissues that connect bones at joints.

Q: Which enzyme in the stomach digests proteins?

Answer: Pepsin

Hint: Pepsin is a stomach enzyme that breaks proteins into simpler peptides.

Q: Tendons connect:

Answer: Muscle to bone

Hint: Tendons attach muscles to bones to allow movement.

Q: Bile is produced by the:

Answer: Liver

Hint: The liver produces bile; the gall bladder stores and concentrates it.

Q: Cartilage is important in joints because it:

Answer: Reduces friction and absorbs shock

Hint: Cartilage provides smooth surfaces and cushioning at joints.

Q: Bile is stored in the:

Answer: Gall bladder

Hint: Bile made in the liver is stored in the gall bladder and released into the small intestine.

Q: Bone marrow in long bones is an important site for:

Answer: Formation of blood cells

Hint: Bone marrow produces blood cells, including RBCs and some WBCs.

Q: The main function of bile in digestion is to:

Answer: Emulsify fats into tiny droplets

Hint: Bile breaks large fat globules into small droplets (emulsification) to increase surface area for lipase.

Q: Which mineral is essential for strong bones and teeth?

Answer: Calcium

Hint: Calcium salts provide hardness and strength to bones and teeth.

Q: Which organ secretes pancreatic juice into the small intestine?

Answer: Pancreas

Hint: The pancreas secretes digestive enzymes (in pancreatic juice) into the duodenum through a duct.

Q: A deficiency of vitamin D can lead to:

Answer: Rickets

Hint: Vitamin D helps calcium absorption; deficiency can cause rickets with soft, weak bones.

Q: Trypsin is an enzyme that mainly digests:

Answer: Proteins

Hint: Trypsin is a protease; it breaks proteins into smaller peptides/amino acids.

Q: The longest bone in the human body is the:

Answer: Femur

Hint: Femur (thigh bone) is the longest and strongest bone in the human body.

Q: Lipase mainly acts on:

Answer: Fats

Hint: Lipase breaks down fats into fatty acids and glycerol.

Q: The bones of the upper arm are mainly:

Answer: Humerus

Hint: Humerus is the bone of the upper arm between shoulder and elbow.

Q: Most absorption of digested food takes place in the:

Answer: Small intestine

Hint: The small intestine has villi and a large surface area for absorbing nutrients.

Q: The bones of the forearm are:

Answer: Radius and ulna

Hint: Radius and ulna form the forearm between elbow and wrist.

Q: Finger-like projections in the small intestine that increase absorption are called:

Answer: Villi

Hint: Villi increase surface area and contain blood capillaries and lacteals for absorption.

Q: The kneecap bone is called:

Answer: Patella

Hint: Patella protects the knee joint and aids movement.

Q: The end products of protein digestion are mainly:

Answer: Amino acids

Hint: Proteins are broken down into amino acids which are absorbed into blood.

Q: The shoulder blade is called:

Answer: Scapula

Hint: Scapula (shoulder blade) is a flat bone on the back of the shoulder.

Q: The end products of fat digestion are mainly:

Answer: Fatty acids and glycerol

Hint: Fats are digested into fatty acids and glycerol for absorption.

Q: The collar bone is called:

Answer: Clavicle

Hint: Clavicle connects the shoulder to the chest region.

Q: The end product of starch digestion is mainly:

Answer: Glucose

Hint: Carbohydrates like starch are finally broken into simple sugars such as glucose.

Q: The breastbone in the center of the chest is the:

Answer: Sternum

Hint: Sternum is a flat bone to which ribs attach at the front.

Q: Which part of the alimentary canal is mainly responsible for water absorption?

Answer: Large intestine

Hint: The large intestine absorbs water and salts from undigested food, forming faeces.

Q: The hip bone forms part of the:

Answer: Pelvic girdle

Hint: Pelvic girdle supports the lower body and protects organs in the pelvic region.

Q: Which is NOT a function of the large intestine?

Answer: Digesting proteins with pepsin

Hint: Protein digestion by pepsin occurs in the stomach, not the large intestine.

Q: The backbone is made up of many small bones called:

Answer: Vertebrae

Hint: Vertebral column consists of vertebrae stacked to form the backbone.

Q: The process of removing undigested food through the anus is called:

Answer: Egestion

Hint: Egestion is elimination of undigested matter; it is different from excretion of metabolic wastes.

Q: A fracture is:

Answer: A break or crack in a bone

Hint: A fracture refers to a broken bone due to injury or disease.

Q: A ring-like muscle that controls the opening between stomach and small intestine is the:

Answer: Pyloric sphincter

Hint: The pyloric sphincter regulates passage of semi-digested food (chyme) into the duodenum.

Q: A sprain usually involves injury to:

Answer: Ligaments

Hint: Sprain is stretching/tearing of ligaments at a joint.

Q: Food is temporarily stored and churned in the:

Answer: Stomach

Hint: The stomach stores food, mixes it with gastric juice, and churns it to form chyme.

Q: Osteoporosis is a condition where bones become:

Answer: Porous and brittle

Hint: Osteoporosis reduces bone density, making bones fragile and prone to fractures.

Q: Mucus secreted in the stomach mainly protects the stomach lining from:

Answer: Acid and enzymes

Hint: Mucus forms a protective layer preventing the stomach from being digested by its own acid and enzymes.

Q: The pivot joint is found in the:

Answer: Neck (between skull and first vertebrae)

Hint: Pivot joint in the neck allows rotation of head (e.g., turning side to side).

Q: If the pancreas fails to release enough digestive enzymes, which process is most directly affected?

Answer: Digestion of proteins, fats and carbohydrates in small intestine

Hint: Pancreatic juice contains amylase, lipase and proteases; reduced secretion reduces digestion in the duodenum.

Q: Carpals are bones found in the:

Answer: Wrist

Hint: Carpals are the small bones forming the wrist.

Q: Which statement best describes 'assimilation' of food?

Answer: Using absorbed nutrients for energy, growth and repair

Hint: Assimilation is the utilization of absorbed nutrients by body cells.

Q: Tarsals are bones found in the:

Answer: Ankle

Hint: Tarsals are the small bones forming the ankle region.

Q: Which structure prevents food from entering the windpipe during swallowing?

Answer: Epiglottis

Hint: The epiglottis closes the opening of the trachea during swallowing to prevent choking.

Q: Which statement best explains the role of the skeleton in movement?

Answer: Bones provide attachment to muscles and act as levers

Hint: Muscles pull on bones at joints, and bones act as levers to produce movement.

Q: Which type of teeth are mainly used for tearing food?

Answer: Canines

Hint: Canines are pointed teeth adapted for tearing food.

Q: The skull bone that moves during chewing is the:

Answer: Mandible

Hint: Mandible (lower jaw) is the only movable bone of the skull in basic school biology.

Q: Incisors are mainly used for:

Answer: Cutting and biting

Hint: Incisors are chisel-shaped teeth used to cut and bite food.

Q: The spinal column has discs between vertebrae that mainly:

Answer: Act as shock absorbers

Hint: Intervertebral discs cushion the vertebrae and allow flexibility.

Q: Inflammation at a wound site (redness, swelling) mainly indicates:

Answer:

Hint: Inflammation helps bring WBCs and protective substances to fight infection and start repair.

Q: Fever during infection can be beneficial because it:

Answer: Can slow growth of some pathogens and boosts immune response

Hint: Moderate fever can inhibit microbes and help immune reactions work better.

Q: Vaccination helps prevent diseases by:

Answer: Stimulating the body to produce antibodies and memory cells

Hint: Vaccines introduce weakened/inactivated antigens to build immunity without causing severe disease.

Q: Immunity developed after vaccination is called:

Answer: Artificial active immunity

Hint: Vaccination induces the body to actively produce antibodies (active), by artificial means.

Q: Immunity gained by a baby from mother`s milk is an example of:

Answer: Natural passive immunity

Hint: Antibodies transferred from mother provide immediate protection without the baby making them (passive).

Q: Which of these is a common sign of an allergic reaction?

Answer: Sneezing and itching

Hint: Allergies are exaggerated immune responses, often causing sneezing, itching or rashes.

Q: The chemicals released by certain immune cells during allergy include:

Answer: Histamine

Hint: Histamine release can cause swelling, itching and sneezing during allergic reactions.

Q: Which of these diseases is caused by a virus and prevented by vaccination?

Answer: Polio

Hint: Polio is a viral disease and vaccines help build immunity against it.

Q: Which statement about antibiotics is correct?

Answer: They work against bacteria, not viruses

Hint: Antibiotics kill or stop bacteria; they do not work against viruses like cold/flu.

Q: When a cut occurs, blood clots to prevent:

Answer: Excessive blood loss and entry of germs

Hint: Clotting seals the wound and reduces bleeding and infection risk.

Q: The organ that filters blood and helps in immune functions (basic level) is the:

Answer: Spleen

Hint: Spleen filters blood and helps in immune responses by removing old cells and supporting WBCs.

Q: The lymphatic system helps in transport of:

Answer: Fats absorbed from small intestine

Hint: Fats enter lacteals (lymph vessels) and are transported as part of lymphatic function.

Q: The swelling of lymph nodes during infection happens because:

Answer: They are actively producing and storing immune cells

Hint: Lymph nodes enlarge as lymphocytes multiply to fight infection.

Q: Which of the following is NOT part of the immune system?

Answer: Red blood cells

Hint: RBCs mainly transport oxygen; WBCs, lymph nodes and skin are involved in defense.

Q: What is an antigen?

Answer: A substance that triggers immune response

Hint: Antigens are foreign substances (often on microbes) that stimulate antibody production.

Q: In human blood, antibodies are mainly found in?

Answer: Memory cells

Hint: Memory cells help the immune system respond faster and stronger upon re-infection.

Q: Which of these is an example of a communicable disease?

Answer: Measles

Hint: Measles spreads from person to person; rickets and goitre are deficiency diseases.

Q: A disease that spreads through contaminated water is:

Answer: Cholera

Hint: Cholera is caused by bacteria and spreads through contaminated water and food.

Q: The best immediate practice to prevent spread of many infections is:

Answer: Washing hands with soap

Hint: Handwashing removes pathogens and reduces transmission of infections.

Q: Which barrier in the respiratory tract traps dust and germs?

Answer: Mucus and cilia

Hint: Mucus traps particles and cilia move them out, protecting lungs from infection.

Q: The acidic nature of stomach juice helps immunity by:

Answer: Killing many microbes in food

Hint: Hydrochloric acid in stomach kills many germs that enter with food.

Q: Vaccines are generally made from:

Answer: Weakened or inactivated pathogens or their parts

Hint: Vaccines contain antigens that safely stimulate immune response.

Q: Why should antibiotics not be taken without prescription?

Answer: Misuse can cause antibiotic resistance

Hint: Overuse/misuse promotes resistant bacteria, making infections harder to treat.

Q: Antibiotic resistance means:

Answer: Bacteria no longer get killed by an antibiotic

Hint: Resistant bacteria survive antibiotic treatment, requiring different medicines.

Q: Which of these helps the immune system by producing antibodies?

Answer: Lymphocytes

Hint: Certain lymphocytes (B cells) produce antibodies against pathogens.

Q: Pus at an infected wound mainly contains:

Answer: Dead white blood cells and microbes

Hint: Pus forms when WBCs fight microbes; dead cells and debris collect at the site.

Q: The immune response that acts immediately and is present from birth is called:

Answer: Innate immunity

Hint: Innate immunity includes skin barriers, inflammation and phagocytes present from birth.

Q: Acquired immunity differs from innate immunity because it is:

Answer: Specific to particular pathogens

Hint: Acquired immunity develops after exposure and is specific, involving memory.

Q: Which of these is an example of a physical barrier to infection?

Answer: Skin

Hint: Skin prevents entry of pathogens and is a physical barrier.

Q: The watery tears in eyes help protect by:

Answer: Washing away dust and containing enzymes that kill germs

Hint: Tears clean the eye surface and contain protective substances like lysozyme (basic).

Q: Saliva helps protect the mouth by:

Answer: Washing away microbes and containing enzymes

Hint: Saliva helps cleanse the mouth and contains substances that can inhibit germs.

Q: Which habit increases risk of infection spreading in a community?

Answer: Not covering mouth while coughing

Hint: Coughing without covering releases droplets that can carry pathogens to others.

Q: A vaccine is different from an antibiotic because a vaccine:

Answer: Prevents disease by preparing immune system

Hint: Vaccines stimulate immunity before infection; antibiotics treat bacterial infection after it occurs.

Q: The swelling and redness around a mosquito bite is mainly due to:

Answer: Local immune reaction

Hint: Immune chemicals cause swelling/itching at bite site as part of inflammatory response.

Q: Which of these practices best supports a healthy immune system?

Answer: Balanced diet, sleep and exercise

Hint: Good nutrition and rest support immune function; hygiene prevents infections.

Q: Which of these is an example of a non-communicable disease?

Answer: Diabetes

Hint: Diabetes does not spread from person to person; measles and colds are communicable.

Q: The lymphatic system returns extra fluid from tissues back to the:

Answer: Bloodstream

Hint: Lymph vessels collect tissue fluid and return it to blood, preventing swelling.

Q: Which of these statements is correct about white blood cells?

Answer: They can move out of blood vessels to fight infection

Hint: WBCs can squeeze through capillary walls to reach infected tissues (diapedesis).

Q: Which part of blood is mainly involved in carrying antibodies?

Answer: Plasma

Hint: Antibodies are proteins present in plasma.

Q: A student says 'vaccines cure diseases instantly'. The correct explanation is:

Answer: Vaccines build immunity; they are mainly preventive

Hint: Vaccines are used to prevent diseases by preparing immune memory before infection.

Q: Which of these is a correct reason why fever should be monitored?

Answer: Very high fever can be harmful even though mild fever can help

Hint: Mild fever can help, but very high fever can damage body functions and needs medical attention.

Q: Which of the following is a safe health practice to reduce disease spread in Public?

Answer: Staying home when seriously ill and following hygiene

Hint: Good hygiene and avoiding contact when sick reduces transmission.