

Instructions:

- Total Questions: **30**
- Time Allowed: **60 Minutes**
- Choose the correct option (A, B, C, or D)
- Each question carries **1 mark**

Section A (IQ Level: Verbal & Non-Verbal Reasoning)

Q1	Choose the word that best fits: The scientist made a ___ discovery that changed how we understand the universe.
A Ordinary	B Dull
C Groundbreaking	D Useless

Q2	<i>No reptiles are warm-blooded. All snakes are reptiles.</i> What must be TRUE?
A All warm-blooded animals are snakes	B Snakes are warm-blooded
C No snake is warm-blooded	D Some snakes are warm-blooded

Q3	<i>Riya scored higher than Priya. Noor scored lower than Priya but higher than Sana. Hina scored lower than Sana.</i> Who scored SECOND highest?
A Priya	B Noor
C Sana	D Hina

Q4	<i>Sequence: 1, 4, 9, 16, 25, ___</i> What is the NEXT number in this pattern?
A 30	B 35
C 36	D 49

Q5	<i>Matrix pattern: Row 1: $\triangle \square \circ$ Row 2: $\square \circ \triangle$ Row 3: $\circ \triangle$ ____</i>		
	Which shape completes the matrix?		
A	\triangle (Triangle)	B	\circ (Circle)
C	\square (Square)	D	\star (Star)

Section B (Subject relevant)

Q6	Which body system is primarily responsible for transporting oxygen and nutrients to all cells of the body?			
	A	Nervous system	B	Digestive system
	C	Circulatory system	D	Skeletal system

Q7	<i>Aisha noticed that when she held her breath, her heart started beating faster.</i>		
	Which two body systems are working together in this situation?		
A	Digestive and skeletal	B	Respiratory and circulatory
C	Nervous and muscular	D	Excretory and reproductive

Q8	A person's small intestine is damaged and cannot absorb nutrients properly. Which body function will be MOST directly affected?			
	A	Breathing	B	Blood circulation
	C	Energy supply to cells	D	Bone growth only

Q9	During photosynthesis, plants take in carbon dioxide and water to produce glucose. What else is produced as a by-product of this process?		
	A	Nitrogen	B

C Carbon monoxide	D Hydrogen
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Q10 *A plant is placed in a sealed glass box with enough water and soil but no light. After two weeks, the plant dies.*
What is the BEST explanation for why the plant died?

A The plant had too much water	B The soil was too dry
C The plant could not perform photosynthesis without light	D The plant ran out of carbon dioxide immediately

Q11 *A biologist finds an animal that has a backbone, breathes through gills when young and lungs when adult, and lays eggs near water.*
Which group does this animal belong to?

A Mammals	B Reptiles
C Amphibians	D Fish

Q12 **Which of the following is the CORRECT reason why scientists classify living things?**

A To give animals funny names	B To make it easier to study and identify organisms
C To separate plants from the sun	D To count the number of animals on Earth

Q13 **A ball rolling on a smooth floor slows down and stops. What force is responsible for stopping the ball?**

A Gravity pulling it sideways	B Friction between the ball and the floor
C Air pressure pushing forward	D Magnetic force from the ground

Q14

Omar pushes a heavy box and a light box with the same amount of force.

Which box will accelerate more, and why?

A The heavy box, because it is larger

B The light box, because less mass means more acceleration

C Both boxes accelerate equally

D The heavy box, because force is stronger on heavy objects

Q15

A car travels 120 km in 2 hours. What is its average speed?

A 240 km/h

B 60 km/h

C 30 km/h

D 120 km/h

Q16

A student pushes a wall with full force for 10 minutes, but the wall does not move.

How much work has the student done on the wall?

A A lot of work, because they used a lot of force

B No work, because the wall did not move

C Some work, because they used energy

D Negative work, because the wall pushed back

Q17

A roller coaster is at the top of a hill before moving. Which type of energy does it have at that point?

A Kinetic energy only

B Thermal energy

C Potential energy due to its height

D Sound energy

Q18

When a moving bicycle is braked to a stop, its kinetic energy is converted mainly into:

A Light energy

B Electrical energy

C Heat energy due to friction

D Sound energy only

Q19

A straw placed in a glass of water appears to be bent at the water surface. This happens because of:

A Reflection of light off the straw

B Refraction — light changes speed when entering water

C The straw actually bends in water

D Diffraction of light around the glass

Q20

Noor stands in front of a smooth mirror and sees her clear image. Fatima stands in front of a rough, uneven surface and sees a blurry image.

What explains this difference?

A Smooth surfaces absorb more light

B Rough surfaces reflect light in scattered directions while smooth surfaces reflect it uniformly

C Mirrors produce light on their own

D Fatima is standing too far away

Q21

Sound travels through different media at different speeds. In which medium does sound travel FASTEST?

A Vacuum

B Air

C Water

D Steel

Q22

Two tuning forks are struck — one produces 256 Hz and the other 512 Hz. What is the difference between the sounds they produce?

A The 512 Hz fork is louder

B The 512 Hz fork has a higher pitch

C The 256 Hz fork vibrates faster

D Both produce the same sound

Q23

Ali places two magnets near each other and they push apart.

Which poles must be facing each other?

A North and South	B South and North
C North and North (like poles)	D It depends on the size of the magnet

Q24 An electromagnet differs from a permanent magnet because an electromagnet:

A Is always stronger	B Can be turned on and off using electric current
C Only attracts iron	D Works without any metal

Q25 Rania waters two identical plants every day — one with plain water and one with sugary water. After two weeks, the plant watered with sugary water wilts and dies. What is the MOST likely explanation?

A Sugar gives the plant too much energy	B Sugary water changes the soil texture and blocks light
C The sugary water draws water out of the plant's roots by osmosis	D Sugar blocks the plant's leaves from opening

Q26 Which of the following correctly describes the process of transpiration in plants?

A Roots releasing water into the soil	B Leaves losing water vapor through tiny pores called stomata
C Plants absorbing water from the air	D Stems producing water during photosynthesis

Q27 A student classifies a whale as a fish because it lives in water. Why is this classification INCORRECT?

A Whales are too large to be fish	B Whales breathe air, give birth to live young, and are warm-blooded — characteristics of mammals
C Whales do not have fins	D Whales live in cold water, not warm water

Q28

A guitar string is plucked gently and then plucked harder. When plucked harder, the sound is louder. What physical property of the string changes to cause this?

A The frequency of vibration increases

B The length of the string changes

C The amplitude of vibration increases

D The string becomes thinner

Q29

Sara is testing which surfaces are magnetic. She tries iron nails, aluminium foil, a copper coin, and a steel spoon.

Which objects will be attracted to the magnet?

A All metal objects

B Only iron nails and steel spoon (ferromagnetic materials)

C Aluminium foil and copper coin

D None, because the magnet is too small

Q30

During an energy transformation in a light bulb, electrical energy is converted into light and heat. If the bulb converts only 10% of energy into light, what happens to the remaining 90%?

A It is destroyed and lost forever

B It is stored inside the bulb

C It is released as heat energy — energy is conserved but transformed

D It returns to the electrical circuit

✧ **End of Paper – Best of Luck!** ✧