

## Class-7<sup>th</sup> Science

### NACT Science Practice Set (100 Questions with Answers)

#### 1 Logical Reasoning (25 Questions)

**Q1.** Which number comes next in the series? 2, 6, 12, 20, 30, \_\_

A) 42 B) 36 C) 40 D) 44

✓ Ans: A) 42

**Q2.** If 'WATER' is coded as 'XZVHU', then 'EARTH' is coded as:

A) FCUIK B) FBSUI C) FZSIK D) FCVUI

✓ Ans: A) FCUIK

**Q3.** A clock shows 3:15. What is the angle between the hour and minute hands?

A) 0° B) 7.5° C) 30° D) 45°

✓ Ans: B) 7.5°

**Q4.** Find the odd one out: Heart, Liver, Kidney, Bone

A) Heart B) Liver C) Kidney D) Bone

✓ Ans: D) Bone

**Q5.** If 5 pencils cost ₹30, how many pencils can be bought for ₹90?

A) 10 B) 15 C) 20 D) 25

✓ Ans: B) 15

**Q6.** Which shape will complete the pattern?

▲ □ ▲ □ ▲ \_\_\_\_

A) Triangle B) Circle C) Square D) Pentagon

✓ Ans: A) Triangle

**Q7.** Raju is older than Rani. Rani is younger than Meena. Who is the oldest?

A) Raju B) Rani C) Meena D) Cannot say

✓ Ans: C) Meena

**Q8.** In a certain code, LION = 12-9-15-14. What is code for TIGER?

A) 20-9-7-5-18 B) 19-9-7-5-18 C) 20-10-6-5-18 D) 21-9-7-5-18

✓ Ans: A) 20-9-7-5-18

**Q9.** Complete the analogy: Tree : Leaf :: Flower : ?

A) Stem B) Petal C) Root D) Fruit

✓ Ans: B) Petal

**Q10.** If NORTH is coded as SQRUI, then SOUTH is coded as:

A) VRXUI B) VRXWI C) VQXUI D) VQXWI

✓ Ans: A) VRXUI

**Q11.** Which number is odd in the series: 11, 13, 15, 17, 18, 19

A) 13 B) 15 C) 18 D) 19

✓ Ans: C) 18

**Q12.** Find the missing term: 1, 4, 9, 16, ?

A) 20 B) 24 C) 25 D) 36

✓ Ans: C) 25

**Q13.** If CAT = 3120, BAT = 2120, then RAT = ?

A) 1820 B) 1821 C) 2820 D) 1822

✓ Ans: A) 1820

**Q14.** Which figure is different? Circle, Sphere, Cube, Rectangle

✓ Ans: Cube

**Q15.** Aman is taller than Ravi but shorter than Suresh. Who is the tallest?

A) Aman B) Ravi C) Suresh D) Cannot say

✓ Ans: C) Suresh

**Q16.** If TABLE is coded as UBCMF, then CHAIR is coded as:

A) DIBJS B) DBHJS C) DIBKR D) DIBIR

✓ Ans: A) DIBJS

**Q17.** What comes next in the series? 2, 4, 8, 16, \_\_\_\_

A) 20 B) 24 C) 32 D) 36

✓ Ans: C) 32

**Q18.** Odd one out: Mercury, Mars, Earth, Venus

✓ Ans: Mercury

**Q19.** Arrange in order of size: Atom, Cell, Organ, Tissue

✓ Ans: Atom < Cell < Tissue < Organ

**Q20.** Which number replaces ? → 7, 14, \_\_, 56, 112

A) 18 B) 21 C) 28 D) 35

✓ Ans: C) 28

**Q21.** Find the mirror image of "L".

✓ Ans: J

**Q22.** Which is the shortest? Giraffe, Elephant, Cat, Horse

✓ Ans: Cat

**Q23.** Which one is odd: Dog, Cat, Tiger, Car

✓ Ans: Car

**Q24.** How many 90° angles are in a rectangle?

A) 1 B) 2 C) 3 D) 4

✓ Ans: D) 4

**Q25.** If Monday = 1st, what day is the 15th?

A) Tuesday B) Wednesday C) Thursday D) Friday

✓ Ans: C) Thursday

**Q31.** Brain part for voluntary actions?

✓ Ans: Cerebrum

**Q32.** Acid turns blue litmus?

✓ Ans: Red

**Q33.** Motion of pendulum?

✓ Ans: Oscillatory

**Q34.** Physical change example?

✓ Ans: Melting of ice

**Q35.** Vitamin formed in sunlight?

✓ Ans: D

**Q36.** Organ for excretion?

✓ Ans: Kidney

**Q37.** Speed of light?

✓ Ans:  $3 \times 10^8$  m/s

**Q38.** Non-conductor?

✓ Ans: Plastic

**Q39.** Chemical change?

✓ Ans: Baking a cake

**Q40.** Iron in moist air?

✓ Ans: Rusts

**Q41.** Unit of electric current?

A) Ampere B) Ohm C) Volt D) Watt

✓ Ans: A) Ampere

**Q42.** Gas needed for respiration?

✓ Ans: Oxygen

**Q43.** Which organ pumps blood?

✓ Ans: Heart

**Q44.** Device to measure temperature?

✓ Ans: Thermometer

**Q45.** Smallest bone in human body?

✓ Ans: Stapes (ear bone)

**Q46.** Earth's natural satellite?

✓ Ans: Moon

## 2 Science Concepts (25 Questions)

(Your 15 questions reused + 10 new ones)

**Q26.** Which organelle is the powerhouse of the cell?

✓ Ans: Mitochondria

**Q27.** Chemical formula of water?

✓ Ans: H<sub>2</sub>O

**Q28.** Which is renewable?

✓ Ans: Wind

**Q29.** Gas used in photosynthesis?

✓ Ans: Carbon dioxide

**Q30.** SI unit of force?

✓ Ans: Newton

**Q47.** Liquid part of blood?

✓ Ans: Plasma

**Q48.** Which planet is red?

✓ Ans: Mars

**Q49.** Lens of human eye is?

✓ Ans: Convex

**Q50.** Number of chromosomes in humans?

✓ Ans: 46

---

### 3 Everyday Science (25 Questions)

(Your 15 questions reused + 10 new ones)

**Q51.** Why woolen clothes in winter?

✓ Ans: Trap air

**Q52.** Salt dissolved in water forms?

✓ Ans: Solution

**Q53.** Why copper wires?

✓ Ans: Conduct well

**Q54.** Separation of sand from water?

✓ Ans: Filtration

**Q55.** Function of WBCs?

✓ Ans: Fight infections

**Q56.** Metals feel colder in winter because?

✓ Ans: Conduct heat faster

**Q57.** Plant part for reproduction?

✓ Ans: Flower

**Q58.** Wet hands on electricity are dangerous because?

✓ Ans: Water conducts electricity

**Q59.** Which is biodegradable?

✓ Ans: Banana peel

**Q60.** Water cycle does NOT include?

✓ Ans: Photosynthesis

**Q61.** Foggy windows cause?

✓ Ans: Condensation

**Q62.** Food preservation is for?

✓ Ans: Store for long

**Q63.** Why traffic signals are red?

✓ Ans: Visible from far

**Q64.** Tooth decay cause?

✓ Ans: Germs

**Q65.** Air we breathe has more?

✓ Ans: Nitrogen

**Q66.** Why do we sweat?

✓ Ans: To cool body

**Q67.** Why do farmers plough soil?

✓ Ans: Mix air and nutrients

**Q68.** Why do ships float?

✓ Ans: Buoyancy

**Q69.** Why do we eat green vegetables?

✓ Ans: Rich in vitamins/minerals

**Q70.** Which energy runs a fan?

✓ Ans: Electrical

**Q71.** Why do bulbs glow?

✓ Ans: Filament gets hot

**Q72.** Solar panels work on which energy?

✓ Ans: Solar

**Q73.** Why do we use helmets?

✓ Ans: Protect head

**Q74.** Why is salt added in pickles?

✓ Ans: Preservation

**Q75.** Why do we drink boiled water?

✓ Ans: Kill germs

---

### 4 Achievers Section (HOTS) (25 Questions)

(Your 10 questions reused + 15 new ones)

**Q76.** Ball thrown up converts kinetic to?

✓ Ans: Potential

**Q77.** Balloon bursts with needle because?

✓ Ans: Elastic limit breaks

**Q78.** Tree bends in wind shows?

✓ Ans: Flexibility

**Q79.** Bubbles in boiling water contain?

✓ Ans: Water vapor

**Q80.** Why do astronauts wear space suits?

✓ Ans: To breathe & stay safe

**Q81.** Iron floats on mercury because?

✓ Ans: Mercury is denser

**Q82.** Plant bends to light due to?

✓ Ans: Phototropism

**Q83.** Pressure cooker cooks fast because?

✓ Ans: Steam under pressure

**Q84.** Satellites stay in orbit because?

✓ Ans: Speed & gravity balance

**Q85.** Microwaves cook food because?

✓ Ans: Penetrate & heat inside

**Q86.** Why rainbow forms?

✓ Ans: Refraction & reflection of light

**Q87.** Why does ice float on water?

✓ Ans: Lower density

**Q88.** Why does sound not travel in space?

✓ Ans: No medium

**Q89.** Why are desert animals nocturnal?

✓ Ans: Avoid heat

**Q90.** Why do camels have humps?

✓ Ans: Store fat

**Q91.** Why does iron expand on heating?

✓ Ans: Increase in kinetic energy

**Q92.** Why do stars twinkle?

✓ Ans: Atmospheric refraction

**Q93.** Why are solar cookers painted black?

✓ Ans: Absorb heat

**Q94.** Why do fish breathe with gills?

✓ Ans: Extract oxygen from water

**Q95.** Why does a glass crack when hot water is poured?

✓ Ans: Uneven expansion

**Q96.** Why do we see lightning before thunder?

✓ Ans: Light is faster than sound

**Q97.** Why does a ball bounce?

✓ Ans: Elasticity

**Q98.** Why does moon have no atmosphere?

✓ Ans: Low gravity

**Q99.** Why does an ice cube melt faster in cola than water?

✓ Ans: Cola absorbs heat faster

**Q100.** Why do astronauts appear weightless?

✓ Ans: Free fall condition

NACT  
SCIENCE EXAM