

Odisha Adarsha Vidyalaya Entrance Test

IBRAIN_ENG_OAV_VST_001_VST

QUESTION PAPER

Class: 5

Subject: Full Test (VST)

Medium: English

Date: 22/09/2026

Candidate's Roll No. :

Duration: 120 Minutes

Total Questions: 60

Marks / Question: 1

Total Marks: 56

Section-wise Distribution

Section	Name	Question Range
I	English	1–15
II	Mathematics	16–30
III	Science	31–45
IV	Social Science	46–60
Total		60

ନିର୍ଦ୍ଦେଶାବଳୀ

- ଏହି ପ୍ରଶ୍ନପତ୍ର ପୃଷ୍ଠିକାରେ ବହୁ ବିକଳ୍ପ ଉତ୍ତର ଭିତ୍ତିକ ପ୍ରଶ୍ନ (MCQ) ରହିଛି ।
- ପ୍ରତ୍ୟେକ ପ୍ରଶ୍ନର ଚାରୋଟି (୦୪) ସମ୍ଭାବ୍ୟ ଉତ୍ତର ଦିଆଯାଇଛି, ଯାହା ମଧ୍ୟରୁ କେବଳ ଗୋଟିଏ ଉତ୍ତର ସଠିକ୍ ଅଟେ ।
- ସଠିକ୍ ଉତ୍ତରକୁ ବାଛି OMR ସିଟ୍ରେ ସମ୍ପୂର୍ଣ୍ଣ ବୃତ୍ତକୁ କେବଳ ନୀଳ/କଳା ବଲପଏଣ୍ଟ କଲମରେ ସମ୍ପୂର୍ଣ୍ଣ ଭାବେ ଭରଣ କରନ୍ତୁ । ଦୁଇ କିମ୍ବା ତତୋଧିକ ବୃତ୍ତ ଭରିଲେ ଉତ୍ତର ବାତିଲ ହେବ ।
- ଅସମ୍ପୂର୍ଣ୍ଣ କିମ୍ବା ଆଂଶିକ ଭାବେ ଭରା ବୃତ୍ତ ମୂଲ୍ୟାୟନ ହେବ ନାହିଁ ।
- ଉତ୍ତର ପତ୍ର କମ୍ପ୍ୟୁଟର/ମାନବ ପଦ୍ଧତି ଦ୍ଵାରା ମୂଲ୍ୟାୟନ କରାଯିବ ।
- ଉତ୍ତର ପତ୍ର ଦାଗ ପଡ଼ିଥିଲେ, ଚିରି ଯାଇଥିଲେ, କୁଞ୍ଚିତ ହୋଇଥିଲେ କିମ୍ବା ଠିକ୍ ଭାବେ ଛପା ହୋଇ ନ ଥିଲେ ତୁରନ୍ତ ଫେରାଇ ଅନ୍ୟ ଏକ ଠିକ୍ ପତ୍ର ମାଗି ନିଅନ୍ତୁ ।
- ପୃଷ୍ଠିକାର ମୁଦ୍ରିତ ପୃଷ୍ଠା ସଂଖ୍ୟା, ପ୍ରଶ୍ନ ସଂଖ୍ୟା ଓ ବୁକଲେଟ୍ କୋଡ୍ ଠିକ୍ ଅଛି କି ନାହିଁ ଯାଞ୍ଚ କରନ୍ତୁ । କୌଣସି ତ୍ରୁଟି ଥିଲେ ତୁରନ୍ତ ଜଣାନ୍ତୁ ।
- ନିର୍ଦ୍ଦିଷ୍ଟ ସ୍ଥାନରେ ଆପଣଙ୍କ ରୋଲ୍ ନମ୍ବର ଲେଖନ୍ତୁ । ଖସଡ଼ା କାର୍ଯ୍ୟ ପାଇଁ ନିର୍ଦ୍ଦିଷ୍ଟ ସ୍ଥାନ ବ୍ୟତୀତ ଅନ୍ୟ କୌଣସି ସ୍ଥାନରେ କିଛି ଲେଖନ୍ତୁ ନାହିଁ ।

INSTRUCTIONS

- This question booklet contains Multiple Choice Questions (MCQ) only.
- Each question has four (04) probable answers, out of which only one is correct.
- Select the correct answer and darken the appropriate circle completely in the OMR sheet with Blue/Black ballpoint pen only. Darkening two or more circles will lead to rejection of the answer.
- Partial / incomplete darkened circles shall not be evaluated.
- The answer sheet shall be evaluated by computer / an approved method.
- In case the answer sheet is stained, torn, crumpled, mutilated, distorted, or not properly printed, it shall be returned immediately for a correct replacement.
- Verify that the number of printed pages, number of questions, and booklet code match this booklet. In case of any discrepancy, report it immediately.
- Write your Roll No. in the space provided. Do not write or scribble anywhere else in the booklet except the space provided

ENGLISH

Q. No 1 to 15

Q.1. Choose the correctly spelt word for a large animal:

- (a) Elephant (b) Elefant (c) Ellephant
(d) Eliphant

Q.2. What does the word '**Scooterist**' mean?

- (a) A person who repairs scooters
(b) A person who sells scooters
(c) A person who rides a scooter
(d) A person who manufactures scooters

Q.3. Complete the sentence with the appropriate preposition: Rina sat _____ Sita and Gita.

- (a) Behind (b) Near (c) Between (d) Under

Q.4. Fill in the blank with the correct preposition:
"The bank is ______ the school."

- (a) between (b) behind (c) above (d) inside

Q.5. Rearrange the letters 'S I A L' to form a meaningful word.

- (a) SAIL (b) LAIS (c) SLIA (d) ALIS

Q.6. What is a 'Windowsill'?

- (a) The glass pane of a window
(b) The ledge or bottom shelf forming the base of a window
(c) The curtain hanging over a window
(d) The locking mechanism of a window

Q.7. Where does Anant play his game of hockey?

- (a) In a stadium (b) On a smooth court
(c) On rocky ground (d) In a park

Q.8. What is the opposite (antonym) of the word 'Fast'?

- (a) Quickly (b) Slow (c) Speedy (d) Rapid

Q.9. My grandfather has a habit of keeping his glasses ____ different places.

- (a) in (b) on (c) for (d) at

Q.10. He looked ____ the house for his glasses.

- (a) around (b) after (c) at (d) under

Q.11. Keep your shoes ____ the shoe rack.

- (a) On (b) Over (c) Under (d) Outside

A honeybee flew from flower to flower in a colourful garden. It collected nectar and carried it back to its hive. Inside the hive, thousands of bees worked together. Some bees collected nectar, while others cared for the young bees and kept the hive clean. The bees also made honey from the nectar they collected. The beekeeper carefully placed special boxes near the garden so that the bees could build their colonies safely. The garden became an important place for both the bees and the plants.

Q.12. What did the honeybee collect from flowers?

- (a) Seeds (b) Nectar (c) Leaves (d) Soil

Q.13. Where did the bee take the nectar?

- (a) To the river (b) To the garden
(c) To the hive (d) To the village

Q.14. What did the bees make from nectar?

- (a) Milk (b) Butter (c) Honey (d) Juice

Q.15. What does the passage show about the bees?

- (a) They work together
(b) They always work alone
(c) They dislike flowers
(d) They cannot live in groups

MATHEMATICS

Q. No 16 to 30

Q.16. The number of two-digit natural numbers is:

- (a) 69 (b) 90 (c) 91 (d) 99

Q.17. Gita had ₹1,224. Her father gave her ₹450. She spent ₹375 to buy a storybook. How much money does Gita have now?

- (a) ₹1,299 (b) ₹1,300 (c) ₹1,250 (d) ₹1,674

Q.18. What is the place value of 0 at any position in a number?

- (a) Depends on position (b) Always 0
(c) Always 10 (d) Always 100

Q.19. Calculate the sum of $\frac{1}{4}$ turn and $\frac{1}{2}$ turn expressed as a single fraction of a full turn:

- (a) $\frac{1}{6}$ turn (b) $\frac{2}{6}$ turn (c) $\frac{3}{4}$ turn
(d) 1 full turn

Q.20. Evaluate the sum of the reciprocals of two numbers if their sum is 10 and their product is 21.

- (a) $\frac{21}{10}$ (b) $\frac{10}{21}$ (c) $\frac{31}{21}$ (d) $\frac{11}{21}$

Q.21. A complete journey problem: A passenger buys a train ticket for Rs. 1,450, food for Rs. 350, and taxi fare for Rs. 200. He paid using two Rs. 2,000 notes. How much balance money did he get back?

- (a) Rs. 2,000 (b) Rs. 1,800 (c) Rs. 2,200
(d) Rs. 1,500

Q.22. A trekker starts at base elevation 250 m, climbs up 850 m, descends 320 m into a valley, and then climbs another 410 m. What is his final elevation above sea level?

- (a) 1190 m (b) 1210 m (c) 1150 m (d) 1250 m

Q.23. Evaluate the least number which when divided by 12, 16, and 24 leaves a remainder of 7 in each case, but is completely divisible by 13.

- (a) 103 (b) 151 (c) 199 (d) 247

Q.24. An empty flask weighs 74.35 g. When

completely filled with water, it weighs 173.18 g.

Evaluate the exact weight of the water inside the flask.

- (a) 98.83 g (b) 99.83 g (c) 101.17 g (d) 247.53 g

Q.25. Identify the next number in the alternating sequence: 4, 12, 10, 30, 28, 84, ...

- (a) 82 (b) 80 (c) 252 (d) 86

Q.26. A quadrilateral in which both pairs of opposite sides are parallel and equal is called a:

- (a) Kite (b) Trapezium (c) Parallelogram
(d) Regular Pentagon

Q.27. Which has greater mass: 1 kg of cotton or 1 kg of iron?

- (a) 1 kg of cotton (b) 1 kg of iron
(c) Both have equal mass
(d) Cannot be determined

Q.28. How many times can 25 be continuously subtracted from 625 until 0 is reached?

- (a) 20 times (b) 25 times (c) 30 times
(d) 15 times

Q.29. A point $A(3, 4)$ is reflected across the vertical axis (y -axis). What are the coordinates of its reflected image A' ?

- (a) $(3, -4)$ (b) $(-3, 4)$ (c) $(-3, -4)$ (d) $(4, 3)$

Q.30. A rectangular board has a length of 20 cm and a perimeter of 64 cm. Calculate the area of the board.

- (a) 240 sq. cm (b) 120 sq. cm (c) 440 sq. cm
(d) 280 sq. cm

Q.31. Invasive floating weeds like Water Hyacinth (Eichhornia) spread rapidly across village ponds. What immediate ecological harm does this cause to submerged aquatic life?

- (a) It turns liquid water into solid ice
- (b) It blocks sunlight penetration and prevents atmospheric oxygen dissolution, suffocating fish
- (c) It increases water salinity to ocean levels
- (d) It causes earthquakes in the pond

Q.32. A sealed glass bottle of fresh sweetened fruit juice is opened and left on a warm table for 2 days. Gas bubbles emerge and it smells like alcohol. What happened?

- (a) The juice absorbed carbon dioxide from the sun
- (b) Wild yeast spores settled and fermented fruit sugars into alcohol and CO_2
- (c) Bacteria converted fruit juice into acetic acid directly without gas
- (d) The glass bottle dissolved into the liquid

Q.33. Why does flying kites near high-voltage overhead power lines pose a severe shock hazard, even if the kite string appears non-metallic?

- (a) Kite string attracts clouds
- (b) Humid air, sweat, or carbon coatings on string act as electric conductors, allowing high-voltage current to pass through the human body to ground
- (c) Power lines emit radio waves
- (d) Kites increase line voltage

Q.34. Which synthetic fiber closely resembles natural sheep's wool in softness, warmth, and fluffiness, and is often named 'artificial wool'?

- (a) Nylon (b) Acrylic (c) Polyester
- (d) Terylene

Q.35. The cooling process by which atmospheric water vapor reverts back into liquid water droplets is called:

- (a) Evaporation (b) Condensation (c) Freezing
- (d) Melting

Q.36. A student cuts an apple into two halves: Apple Half A is kept with its outer skin intact, while Apple Half B is peeled and sliced into thin strips. After 4 hours, Apple Half B turns brown and spoils faster. Why?

- (a) Peeling skin exposes inner moist plant tissues directly to atmospheric oxygen and microbial spores
- (b) Apple skin releases cooling rays that preserve the fruit
- (c) Peeling removes sugar from the fruit
- (d) Apple Half B absorbed nitrogen gas from the air

Q.37. Trace the energy conversion steps in a solar-powered agricultural water pump operating in a farm field:

- (a) Solar radiant energy → Photovoltaic electrical energy → Motor kinetic energy pumping water
- (b) Chemical energy → Thermal energy → Sound energy
- (c) Nuclear energy → Chemical energy → Potential energy
- (d) Wind energy → Light energy → Thermal energy

Q.38. After harvesting jute plants, the stems are bundled and submerged in slow-moving water for 10 to 15 days. What scientific process occurs during this period?

- (a) The soft outer stem tissues decompose (retting), releasing the strong stem bast fibers
- (b) Jute stems metamorphose into continuous silk filaments
- (c) Jute stems dissolve completely into a liquid gel
- (d) Jute seeds germinate under water into new plants

Q.39. Which pair of major Indian rivers flow westward through rift valleys to empty into the Arabian Sea?

- (a) Ganga and Yamuna
- (b) Mahanadi and Godavari
- (c) Narmada and Tapi (d) Krishna and Cauvery

Q.40. A patient suffering from a bacterial infection takes high doses of broad-spectrum antibiotics for 14 days. Afterwards, the patient suffers from severe digestive distress and vitamin deficiency. Why?

- (a) Antibiotics destroy teeth enamel completely
- (b) Antibiotics indiscriminately kill beneficial probiotic gut bacteria (*Lactobacillus*) along with pathogens, disrupting digestive flora and vitamin synthesis
- (c) Antibiotics turn stomach acid into salt water
- (d) Antibiotics increase saliva secretion by 1000%

Q.41. Why does exposure to 100°C water steam cause significantly more severe skin burns than contact with boiling water at 100°C?

- (a) Steam contains high pressure chemical acids
- (b) Steam carries extra latent heat of vaporization (2260 J/g) absorbed during phase change
- (c) Boiling water has lower temperature
- (d) Steam turns into ice on skin

Q.42. Identify the fiber sample that melts, shrinks away from a flame, forms a hard uncrushable plastic bead, and emits a sweet chemical odor upon burning.

- (a) Cotton (b) Silk
- (c) Nylon / Polyester (Synthetic) (d) Jute

Q.43. Why are microscopic stomatal pores located strictly on the upper surface of floating Lotus (Nelumbo) leaves rather than the lower surface?

- (a) Lower surface stomata absorb mud
- (b) Lower leaf surface is directly submerged in water; upper stomata face air for atmospheric gas exchange (CO_2/O_2)
- (c) Lotus leaves have no stomata anywhere
- (d) Upper stomata convert sunlight into ice

Q.44. A food freezing experiment compares Slow Home Freezing (cooling to -18°C over 6 hours) with Individual Quick Freezing (IQF - cooling to -40°C in 3 minutes) for fresh strawberries. Upon thawing, Slow Frozen strawberries become mushy with heavy liquid drip loss, while IQF strawberries retain firm texture. Why?

- (a) Slow freezing forms large ice crystals that puncture plant cell walls, causing cell fluid leakage upon thawing
- (b) IQF freezes water into sugar
- (c) Slow freezing burns strawberries with flame
- (d) IQF absorbs light from strawberries

Q.45. Carrying a reusable cloth bag for shopping instead of accepting single-use plastic bags represents which 'R' principle of waste/energy management?

- (a) Repurpose (b) Refuse (and Reduce)
- (c) Recycle (d) Recover

Q.46. When soapy detergent water enters a river pond, water strider insects walking on the surface film suddenly sink. What physical property of water is altered by detergent?

- (a) Water temperature increases by 50°C
- (b) Surface tension of water is dramatically reduced by detergent molecules
- (c) Water density increases making it as thick as honey
- (d) Water turns into liquid nitrogen

Q.47. Synthesize a 3-step master plan for converting an ordinary school with muddy standing water into an exemplary 'Sabuja Anandamaya Vidyalaya' (Joyful Green School):

- (a) Pave the entire school compound with concrete, cut all trees, and install ACs
- (b) Build soak pits for standing water, establish waste segregation with composting/recycling, and initiate student Green Brigades with tree plantation
- (c) Burn all plastic waste daily, close windows, and ban outdoor games
- (d) Fill drains with plastic bags and stop washing hands

Q.48. Ecological Corridor Analysis: If a heavy multi-lane highway is constructed breaking the wildlife movement corridor between Similipal Tiger Reserve and neighboring forests, what disaster threatens wide-ranging mammals (elephants and tigers)?

- (a) Animals will build elevated flyovers themselves.
- (b) Tigers will stop requiring food.
- (c) Forest fires will vanish permanently.
- (d) Wild animal migration routes will be severed, leading to frequent roadkill accidents, isolation, and severe elephant-human habitat conflict.

Q.49. Propose an integrated sustainable conservation model for the Sundarbans delta that simultaneously preserves Royal Bengal Tigers, restores mangrove buffers, and supports local indigenous livelihoods.

- (a) Clear all mangroves to build concrete cities
- (b) Implement community rear-face masks, establish regulated eco-tourism, restore native pneumatophore mangrove zones, and promote coir/honey indigenous cooperatives
- (c) Build high steel walls around the entire delta ocean
- (d) Evacuate all tigers to foreign countries

Q.50. Which of the following hazard-season matching pairs accurately reflects natural environmental risks in Odisha?

- (a) Barsha → River Flooding; Late Grishma → Water Shortage/Heatwave; Seeta → Cold Wave
- (b) Grishma → Snowfall; Barsha → Forest Fire
- (c) Seeta → Cyclonic Floods; Barsha → Drought
- (d) Basanta → Severe Hailstorm Drought

Q.51. Predict what happens to soil fertility in a hill slope field if terrace farming is abandoned and converted into straight vertical plowing:

- (a) Soil fertility will increase tenfold
- (b) Water will stop flowing downhill
- (c) Rainwater runoff velocity will accelerate, carving gullies and washing away topsoil nutrients rapidly
- (d) Crops will turn into solid rock

Q.52. What is the name of the Government program launched in 2014 to clean River Ganga?

- (a) Swachh Bharat Abhiyan
- (b) Namami Gange Program
- (c) Jal Jeevan Mission
- (d) Atal Bhujal Yojana

Q.53. Devise a community outreach initiative led by student Green Brigades ('Sabuja Sainika') to tackle village plastic pollution:

- (a) Organizing 'Plastic-to-Cloth Bag Exchange' stalls, community awareness skits, and setting up village dry waste collection hubs
- (b) Burning all village plastic near the local well
- (c) Dumping school garbage into village farm ponds at night
- (d) Banning villagers from coming near school

Q.54. Which musical instrument combination is traditionally essential for accompanying Odissi vocal and dance renditions?

- (a) Guitar, Piano, and Drums
- (b) Harmonium, Tabla, and Mardala
- (c) Saxophone, Clarinet, and Trumpet
- (d) Santoor, Sarod, and Veena

Q.55. In a controlled agricultural field experiment comparing Apatani paddy-cum-fish culture against conventional monoculture, paddy-fish fields recorded a 75% reduction in weed biomass (g/m^2). What biological process accounts for this reduction?

- (a) Paddy plants absorb weeds through roots
- (b) Swimming fish actively graze on aquatic weed sprouts and disturb weed root settlement in flooded soil
- (c) Fish spray herbicides from their mouth
- (d) Weeds dissolve into salt water instantly

Q.56. What scientific process transforms invisible atmospheric water vapor into visible cloud droplets upon cooling?

- (a) Evaporation
- (b) Condensation (Ghanibhakarana)
- (c) Transpiration (d) Filtration

Q.57. Consider two coastal regions: Region A (protected by thick mangrove forests) and Region B (mangroves cleared for concrete resorts). A severe cyclone brings 4 meter storm surges. What comparative damage will occur?

- (a) Region A will experience low shoreline erosion and minimal inland flood damage; Region B will suffer severe erosion and destruction
- (b) Region B will remain completely untouched while Region A is submerged
- (c) Both regions will experience exact identical destruction regardless of trees
- (d) Region A will catch fire from ocean waves

Q.58. How do coastal mangrove trees (like those in Coringa/Bhitarkanika) act as physical shock absorbers during super cyclones and high flood tides?

- (a) By reflecting storm winds using shiny leaf surfaces
- (b) By absorbing and dissipating wave kinetic energy through dense stilt/prop root networks
- (c) By heating sea water to evaporate tidal waves
- (d) By releasing invisible magnetic rays that repel wind

Q.59. A school replaces all 40 W fluorescent tubelights with 10 W energy-efficient LED bulbs. By what factor is power consumption reduced per light fixture?

- (a) 2 times (b) 4 times (c) 6 times (d) 8 times

Q.60. How is the core concept of 'Unity in Diversity' (Bibidhata Madhyare Ekata) practically illustrated across Indian society?

- (a) Everyone is forced to wear the exact same clothes and eat identical food.
- (b) People of diverse languages, religions, attires, and traditions live together with mutual respect as one nation.
- (c) Only one language is permitted to be spoken across all states.
- (d) Regional festivals are completely banned in public spaces.