

CREST Science Olympiad (CSO)

Previous Year Paper

Class 6 (Set - A)

Time Allowed: 1 hour

Maximum Marks: 60

- Additional **10 minutes** will be allotted to fill up information on the OMR Sheet, before the start of the exam.
- Fill in all the mandatory fields clearly on the OMR Sheet.
- There are a total of 50 questions in this booklet comprising 2 sections namely the Practical Science & Achievers' Section consisting of 40 questions (1 mark each) & 10 questions (2 marks each) respectively.
- There is no negative marking. The use of a calculator is not permitted.
- There is **only ONE correct option** to a given question.
- Use **HB Pencil / Ball point pen (Blue / Black) only** for marking the correct choice of answers on the OMR Sheet.
- Rough work is to be done in the space provided in the test booklet. Extra plain sheet may be provided by the school for the rough work.
- The OMR Sheet is to be handed over to the invigilator at the end of the exam.
- No candidate is allowed to carry any textual material, printed or written, bits of paper, any electronic device, digital watches, etc. inside the examination hall.
- The use of unfair means may result in the cancellation of the exam. Any such instances must be reported at +91-98182-94134 or info@crestolympiads.com

DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO

FILL IN THE DETAILS

Candidate Name:	
Class:	Section:
CREST ID:	

Practical Science (Each Question is 1 Mark)

- 1. Identify the translucent objects from below:
 - 1. Water
 - 2. Ground glass
 - 3. Wood
 - 4. Butter paper
 - 5. Ice
 - 6. Book
 - a. 1, 3 and 6 b. 2, 4 and 5
 - c. 1 and 2 d. 3 and 4
- 2. The figure below shows the water cycle process that takes place in nature. Which of the following process includes different forms like snow, hail or rain?



- a. Condensation b. Collection
- c. Evaporation d. Precipitation
- 3. Which of the following is an example of periodic motion?
 - 1. Hands of a clock
 - 2. A moving train
 - 3. A flying kite
 - A ball falling down from the top of a building
 - a. Only 1 b. Only 2
 - c. Both 2 and 4 d. Both 2 and 3
- Look at the picture given below. It is a method that separates heavier and lighter components of a mixture by the wind. Identify this method correctly:



- a. Hand picking
- b. Threshing
- c. Winnowing
- d. Sieving
- 5. Read the statement given below and correctly identify X:

The distance between the tip of the middle finger and the elbow is X. It is a non-standard unit of measure.

- a. Handspan b. Metre
- c. Foot d. Cubit
- 6. What is the difference between burning an incense stick and melting of ice?



- Burning an incense stick is a chemical change whereas the melting of ice is a physical change.
- Burning an incense stick is an irreversible change whereas the melting of ice is a reversible change.
- c. Burning an incense stick is a physical change whereas the melting of ice is a chemical change.
- d. Both a and b
- 7. Identify which of the following sentences are FALSE:
 - 1. Air pollution can directly contaminate the surface of bodies of water and soil.
 - Taking public transportation instead of driving a car, or riding a bike instead of travelling in carbon dioxide-emitting vehicles are a

couple of ways to reduce air pollution.

- Heating a house by burning substances such as kerosene, wood, and coal will not contaminate the air inside the house.
- a. Only 1
- b. Only 2
- c. Only 3
- d. All three sentences are false
- 8. Choose the correct option which answers the following question:

A lion and a deer lives here. The lion is the predator that makes deer its prey. A lion has eyes in front of the face to have a correct idea about the location of its prey whereas deer has its eyes on either side of its head to look in both directions if any danger.

To which habitat do both lion and deer belong to?

- a. Mountain regions
- b. Deserts
- c. Oceans
- d. Grasslands
- 9. Read the given clues carefully and identify the device:

Clue 1: It is a source of electricity. Clue 2: It has two terminals- one positive and the other negative. Clue 3: It has a small metal cap on one side and a metal disc on the other side.

a. Switch I	b.	Bulb
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- c. Electric cell d. Magnet
- **10.** Fill in the blanks with suitable terms and select the correct option:

Cotton is obtained from the ______ of cotton plants whereas jute is obtained from the ______ of jute plants.

- a. stem, flower b. fruit, stem
- c. seed, fruit d. root, fruit
- **11.** Read the given statements and select the correct one from the given options:

Statement 1: To see a shadow we need a source of light and a transparent object. Statement 2: Mirror reflection gives us hazy images.

- a. Statement 1 is correct but statement 2 is incorrect
- b. Statement 1 is incorrect but statement 2 is correct
- c. Both the statements are correct
- d. Both the statements are incorrect
- 12. Which of the following characteristics of the penguins are not adaptations to the conditions of the polar regions?
 - 1. Fat under the skin
 - 2. Strong sense of smell
 - Tusks have modified teeth used for tearing
 - 4. Webbed feet
 - 5. Strong hooves
 - a. 2 and 3 b. 1 and 4
 - c. 3 and 5 d. 4 and 5
- **13.** Complete the pattern given below correctly:

Gold : Good conductor of electricity ::

- ____: Good insulator of electricity
- 1. Iron
- 2. Aluminium
- 3. Paper
- 4. Copper
- 5. Silver
- a. Only 1 b. Only 3
- c. 1 and 3 d. 1 and 4
- 14. Which method is common in both the pictures shown below where the size of impurities is different?



- a. Condensation b. Sedimentation
- c. Sievina d. Threshing
- 15. Spot two adaptations of aerial animals that enable them to fly easily in the air:
 - 1. Very strong flight muscles
 - 2. Thick fur on its body
 - 3. Hollow and light bones
 - 4. Strong sense of smell
 - 5. Webbed feet



- a. 1 and 3 b. 2 and 4 c. 3 and 5 d. 1 and 4
- **16.** Select the correct option regarding the statements made by Sara and George:

Sara: Redworms do not have teeth. They have a structure called 'gizzard', which helps them in grinding their food. George: Redworms can survive in very hot or very cold surroundings. They don't need moisture around them.

- a. Sara is correct but George is incorrect
- b. Sara is incorrect but George is correct
- c. Both are correct
- d. Both are incorrect
- **17.** Which of the following pair is incorrectly matched?
 - M : Conductor of electricity Glass
 - N: Non-conductor of electricity -Graphite

- O: Conductor of electricity Copper
- P: Non-conductor of electricity Plastic
- a. N and P b. M and O c. O and P d. M and N
- **18.** What is the similarity between the
 - following objects shown below?



Hair dryer Microphone



- a. All these objects use magnets.
- b. All these objects do not use magnets.
- c. All these are artificial magnets.
- d. Both a and c
- 19. Observe the image shown below. Which eye is taking or reading the scale correctly?



b. C a. A d. Both A and C c. B

- 20. Name the following and select the correct option:
 - i. A greenhouse gas
 - The gas responsible for acid rain ii.
 - iii. Substances causing the ozone hole
 - a. i-Methane, ii-Sulphur oxide, iii-Chlorofluorocarbons (CFCs)
 - b. i-Nitrogen, ii-Hydrogen oxide, iii-Ozone
 - c. i-Carbon, ii-Magnesium oxide, iii-Methane
 - d. i-Helium, ii-Methane, iii-Carbon monoxide

- 21. Given below are two groups of fibres namely group X and group Y: Group X - Cotton, Wool, Silk, Pure jute Group Y - Nylon, Polyester, Acrylic On what basis have they been grouped?
 - a. Group X These are all manmade fibres.
 Group Y - These are all plant fibres.
 - b. Group X These are all synthetic fibres.
 Group Y - These are all natural fibres.
 - c. Group X These are all natural fibres.Group Y These are all synthetic fibres.
 - d. Group X These are all plant fibres.
 Group Y These are all animal fibres.
- 22. Select the option which on unscrambling gives the name of the deficiency disorder caused due to the deficiency of iodine in human beings:
 - a. VCSUYR b. STRICKE
 - c. EIOTRG d. MEAIEANA
- **23.** State whether the following statements are true or false:
 - A lighted fluorescent tube is a luminous object whereas the moon is non-luminous.
 - 2. The umbra is the less dark shadow formed on the periphery of the dark shadow.
 - a. 1-True, 2-False
 - b. 1-False, 2-True
 - c. 1-True, 2-True
 - d. 1-False, 2-False
- 24. Which of the following list of foods is obtained from the roots of the plants?
 - 1. Lettuce, Pumpkin, Cabbage

- 2. Cucumber, Onion, Potato
- 3. Spinach, Tomato, Peas
- 4. Turnip, Carrot, Radish
- a. 2 only b. 3 only
- c. 4 only d. Both 2 and 3
- **25.** What is common between stone, paint, graphite and diamond?
 - a. They are all magnetic materials.
 - b. They are all non-magnetic materials.
 - c. They are all attracted towards the north pole only.
 - d. They are all attracted towards the south pole only.
- **26.** Identify the physical changes from the following:
 - 1. You leave the milk whole night and discover it has soured in the morning.
 - 2. Your friend melts some butter for the popcorn.
 - 3. Your mother burns a matchstick in the darkroom.
 - 4. You dissolve sugar in a glass of water to make lemonade.
 - 5. Your friend fermented grapes.
 - a. 2 and 4 b. 1 and 3
 - c. 4 and 5 d. 1 and 2
- 27. Observe the following changes:
 - 1. Bursting of balloon
 - 2. Rusted iron nail
 - Rotting of boiled egg kept in the kitchen

Which of the following is TRUE about changes 1, 2 and 3?

- a. 1 is physical change and 2 and 3 are chemical changes.
- b. 2 and 3 are physical changes and 1 is chemical change.
- c. 2 is physical change and 1 and 3 are chemical changes.

- d. All the three chages are chemical changes.
- **28.** Read the passage given below and correctly identify Z:

Z are also called manufactured fibres. The clothes made of Z last for a longer time. We can distinguish between cotton, silk, wool and Z by performing the burning test.

- a. Natural fibres b. Synthetic fibres
- c. Animal fibres d. Plant fibres
- 29. Read the clues given below and identify the component present in air correctly:

Clue 1: Supports combustion Clue 2: Major component present in inhaled air Clue 3: By product of the photosynthesis process Clue 4: Its percentage content in the air is 20.9%.

- a. Oxygen b. Carbon dioxide
- c. Water vapour d. Nitrogen
- **30.** What is common among the given diseases?

Rickets, Scurvy, Beri-beri, Night blindness

- a. All these diseases are communicable diseases.
- These diseases are caused due to the deficiency of proteins in the human body.
- c. These diseases are caused due to the deficiency of minerals in the human body.
- d. These diseases are caused due to the deficiency of vitamins in the human body.
- **31.** Which of the following is an incorrect statement?

- a. On hammering, brittle substances break.
- b. On hammering, malleable substances are converted to sheets.
- c. Non-metals are generally malleable.
- d. Ductile substances can be drawn into wires.
- 32. Fill in the blanks:

The process of arranging two sets of yarn together to form a fabric is called __(i)__ whereas the process in which a single yarn is used to make a piece of fabric is called __(ii)__.

- a. (i)-spinning, (ii)-knitting
- b. (i)-weaving, (ii)-spinning
- c. (i)-weaving, (ii)-knitting
- d. (i)-spinning, (ii)-knitting
- 33. While doing an activity, the teacher asked Sara to handover the transparent material from the given objects. How many objects will Sara give to her teacher?
 Butter Paper, Wooden Plank, Glass, Rubber, Windows pane, Water, Magnifying glass, Tin can, Cellophane
 - a. 6 b. 3 c. 5 d. 4
 - c. 5 d. 4
- **34.** Read the following sentences and choose the correct option:
 - 1. Trees growing on high mountains have sloping branches and are cone-shaped.
 - 2. Rainwater and snow can easily slide off the sloping branches.
 - a. 1 and 2 are correct but 2 is not correct explanation of 1
 - b. 1 and 2 are correct and 2 is the correct explanation of 1
 - c. Both 1 and 2 are incorrect
 - d. 1 is correct but 2 is incorrect
- **35.** In the following question, an assertion and a reason are given. Choose the correct option:

Assertion (A): In a closed electric circuit, the current passes from one terminal of the electric cell to the other terminal.

Reason (R): Generally, the metal disc of a cell acts as a positive terminal.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true and R is not the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.
- **36.** Why are two separate bins provided, for collecting garbage, in some cities?
 - a. It helps the city to be categorised in a better city.
 - b. These are provided to collect separately the materials those which do not rot into garbage heaps and the wastes that rot completely when buried in the soil.
 - c. These bins are in different colours and attract us to put the garbage in these dustbins.
 - d. None of the above is correct.
- 37. Harry was asked to identify a piece of soft iron put in a basket of 10 magnets of same shape and size. Which is the easiest way of identifying the iron piece at the earliest?
 - a. By picking up one magnet at a time and suspending it.
 - b. By picking up two magnets at a time and conduct repulsion test.
 - c. By bringing another strong magnet near the basket.
 - d. By dropping all magnets into water.
- 38. Robert classified metals into the following group 'X' and 'Y'. Which of the following is the correct basis of classification?



- a. X-Can be magnetised, Y-Cannot be magnetised
- b. X-Can sink, Y-Cannot sink
- c. X-Cannot be attracted by magnet, Y-Can by attracted by magnet
- d. X-Can conduct electricity, Y-Cannot conduct electricity
- 39. The breakers shown contain equal amounts of water and another material. Which list shows the solubility of the different materials in the beakers, from least to most soluble?



- b. Salt, sugar, sand
- c. Sand, salt, sugar
- d. Sugar, salt, sand
- **40.** The density of the solid cylindrical bar shown in the figure is 5×10^3 kg m⁻³. Calculate the weight of the bar: (Take g = 10 m s ⁻²)



Achievers' Section (Each Question is 2 Marks)

41. Read the statements given below and correctly identify X and Y:

Proteins which help carry out chemical reactions in the body are called X. The fibre found in plant sources is made up of a complex carbohydrate called Y.

- a. X Cellulose, Y Enzymes
- b. X Enzymes, Y Cellulose
- c. X Vitamins, Y Cellulose
- d. X Minerals, Y Salts
- **42.** Natural fibres are obtained from plants and animals.

Read the clues and identify the fibre:

Clue 1 - I am a natural fibre obtained from plants.

Clue 2 - I am obtained from the stem of this plant.

Clue 3 - The fabric made from my fibre is called linen.

Clue 4 - I am used for making clothes, ropes and high-quality paper.

a.	Flax	b.	Cotton
a.	Flax	b.	Cottor

c. Wool d. Silk

43. Select the pairs from below that resemble ball and socket joint:

- 1. Shoulder joint
- 2. Elbow joint
- 3. Knee joint
- 4. Joint between the skull and the upper jaw
- 5. Pelvic bones
- 6. Wrist joint
- 7. Hip joint

a.	3 and 4	b.	2 and 5
c.	1 and 7	d.	3 and 6

- **44.** Which of the following statements is correct?
 - a. Most seeds can germinate in the absence of water.

- b. Whales and dolphins breathe in oxygen from the water through gills.
- c. Many aquatic plants have thick, fleshy stems to store water.
- d. Desert rats and snakes remain inactive during the day and stay in their burrows.
- **45.** Study the two groups below and specify on what basis have they been grouped:

Group X : Sweet potatoes, carrots and beef liver Group Y : Fresh orange juice, legumes and dried beans

- a. Group X: These foods are rich in vitamin A.
 Group Y: These foods are rich in the vitamin B complex.
- b. Group X: These foods are rich in vitamin C.
 Group Y: These foods are rich in vitamin D.
- c. Group X These foods are rich in vitamin B complex.Group Y : These foods are rich in vitamin A.
- d. Group X: These foods are rich in vitamin E.
 Group Y: These foods are rich in vitamin K.
- **46.** Which of the following pair is incorrectly matched?

M: Red-eyed frog - Webbed feet to climb trees
N: Bird toucan - Short beak
O: Polar bear - Wide and large paws
P: Monkeys - Long tails for grasping branches

a.	N and P	b.	M and O
c.	O and P	d.	M and N

47. Observe the pictures shown below: Pam took an empty glass bottle and turned it, upside down. Then she dipped the open mouth of the bottle into the bucket filled with water. Water did not enter the bottle. She tilted the bottle slightly and saw that the water entered the bottle and bubbles started coming out of the bottle. What can we conclude from this experiment?



- a. Air exerts pressure.
- b. Air occupies space.
- c. Air contains carbon dioxide.
- d. Air is not present everywhere.
- **48.** A mixture contains camphor powder, sand, iron powder and common salt. Identify the separation methods that are employed to separate the constituents from the mixture:
 - Magnetic separation, sublimation, addition of water followed by filtration, evaporation
 - Handpicking, sieving, addition of water followed by filtration, evaporation
 - c. Magnet separation, sieving, addition of water followed by filtration, evaporation

- d. Magnet separation, sublimation, sedimentation and decantation, evaporation
- 49. Select the correct option and complete the following paragraph:
 Fish have __(i)__ body shape which helps them to move inside water. Fish have __(ii)__ and __(iii)__ that help them to change directions and keep their body balanced in the water.
 __(iv)__ present in fish help them to use oxygen dissolved in water.
 Which of the following correctly fills (i), (ii), (iii) and (iv) respectively?
 - a. streamlined, scales, fins, Lungs
 - b. streamlined, fins, tails, Gills
 - c. streamlined, scales, legs, Gills
 - d. conical, fins, tails, Lungs
- **50.** Which of the following are correct for food nutrients?

	Test	Observation	Result
1	Rice + Dil.	Blue-black	Starch
1.	lodine	colour	present
2.	Egg white + Cu₂SO₄ + Dil. NaOH	Violet colour	Protein absent
2	Flour + Dil.	Yellow	Protein
5.	lodine	colour	present
4	Soybean +	No blue-	Starch
4.	Dil. Iodine	black colour	absent

a.	1 and 2	b.	2 and 3
c.	3 and 4	d.	1 and 4

Answer Key

1.	b	2.	d	3.	а	4.	С	5.	d	6.	d	7.	С
8.	d	9.	С	10.	b	11.	d	12.	С	13.	b	14.	С
15.	а	16.	а	17.	d	18.	а	19.	b	20.	а	21.	С
22.	С	23.	а	24.	С	25.	b	26.	а	27.	а	28.	b
29.	а	30.	d	31.	С	32.	С	33.	С	34.	b	35.	С
36.	b	37.	b	38.	а	39.	С	40.	а	41.	b	42.	а
43.	С	44.	d	45.	а	46.	d	47.	b	48.	а	49.	b
50.	d												