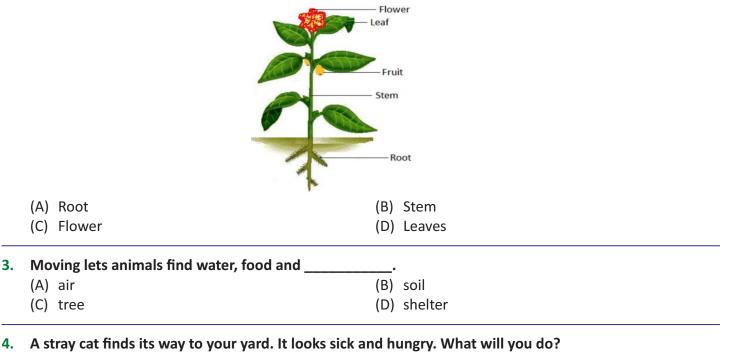


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#### 1. What do you call a place that is very dry and does not get much rain?

(A) Forest	(B) Desert

- (C) Wetland (D) Ocean
- 2. Which part of the plant makes food for the plant?



- (A) Feed it then leave it.
  - (C) Stare at it.

- (B) Feed and take care of it.
- (D) Shoo it away.



- Science	Competency	y Analytical	Test -
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- 5. Birds make \_\_\_\_\_ to lay eggs.
  - (A) cage
  - (C) hive

- (B) web
- (D) nests

#### 6. Which of the following is not a sense organ?

- (A) Ear
- (C) Hair

- (B) Nose
- (D) Tongue

#### 7. Which of the following statement is NOT correct?

- (A) We should eat fast food.
- (B) We should wash vegetables before cooking.
- (C) We should wash fruits before eating.
- (D) We should drink milk every day.

### 8. When you work or play, your body changes the food you eat into \_\_\_\_

(A) fat(C) liquid

- (B) energy
- (D) protein

## 9. Which of the following is a WRONG statement?



- (A) Walk on the footpath.
- (B) Stand in a queue at the bus stop.
- (C) Do not get into or off a moving bus.
- (D) Do not obey the traffic rules.

### 10. Which one of the following is NOT a bad touch?

- (A) Touching private parts
- (B) Slapping
- (C) Hugging
- (D) None of the above.

#### 11. When are good times to brush your teeth during the day?

- (A) Before eating and after eating, before bed
- (B) Whenever you wish
- (C) In the morning after breakfast
- (D) After lunch

#### 12. How can we keep the surroundings of our home clean?

- (A) Throw garbage outside the house.
- (B) Remove plants that grow outside the house.
- (C) Plant more trees.
- (D) Paint the outside wall of the house in an attractive colour.



13.	<ul><li>What is meditation?</li><li>(A) Clearing your mind of all thoughts.</li><li>(B) Thinking about all of the tasks that you have to</li><li>(C) Focusing on things that worry you.</li><li>(D) Quick breaths</li></ul>	finis	h.
14.	Which of the following is NOT a source of drinking	wate	er?
	(А) Тар	(B)	Sea
	(C) River	(D)	Stream
15.	In comparison with pollution on the land, noise po	llutio	on is
	(A) dangerous	(B)	invisible
	(C) not a good thing	(D)	None of the above
16.	What plant would you most likely find in the forest	?	
	(A) Lotus	(B)	Seaweed
	(C) Tall trees	(D)	Palm trees
17.	Plants need from the soil.		
	(A) water and minerals		
	(B) minerals and tiny granules		
	(C) rocks and water		
	(D) air and tiny granules		
18.	Tortoise has hard to keep them safe from p		
	(A) claws	• •	fur
	(C) shell	(D)	None of the above
19.	This animal eats grass and provides milk to us.		
	(A) Cow		Dog
	(C) Cat	(D)	Pig
20.	In which habitat do squirrels, deer and woodpecke		
	(A) Forest	• •	Desert
	(C) Ocean	(D)	Wetland
21.	Our skin gives us a sense of		
	(A) taste	(B)	touch
	(C) smell	(D)	movement
22.	Which of the following would be a balanced meal?		
	(A) Doughnuts and soda		
	(B) Potato chips and milk		
	(C) Eggs, toast, orange juice and milk		
	(D) An apple and a banana		
23.	Which of the following are cereals?		
	(A) butter, ghee, cheese		
	(B) rice, wheat, oats, corn		
	(C) sugar, salt, bread		
	(D) potato, carrot, cabbage		
	Science Competency Analytical Test		3

24.	Which of the following is safe for sharpening a pen	cil?	
	(A) A blade	(B)	A knife
	(C) A pair of scissors	(D)	A sharpener
25.	A good touch is a way to show		
	(A) Love	(B)	Care
	(C) Concern	(D)	All of these
26.	What is the easiest way to prevent covid - 19?		
	(A) Wearing a mask		Keeping a safe distance
	(C) Washing hands	(D)	All of the above
27.	Litter and trash that people drop all around the gro	ound,	,
	(A) can be harmful to children		
	(B) can be harmful to animals		
	(C) can be harmful to the surroundings		
	(D) All of the above		
28.	The team members/anyone playing a game are/is	calle	d a
	(A) audience	(B)	player
	(C) refree	(D)	conductor
29.	What do we get from rain?		
	(A) Food	(B)	Air
	(C) Water	(D)	None of the above
30.	When does noise become pollution?		
	(A) when it gets too loud or lasts too long		
	(B) when it comes from musical instruments		
	(C) when it is close to your house		
	(D) when it is produced from fireworks		
31.	Which plant grows in a desert and can store water	in its	stems?
	(A) Cactus	• •	Kelp
	(C) Grass	(D)	Water lily
32.	What is the function of the flower?		
	(A) It makes food for the plant.	(B)	It absorbs water from the ground.
	(C) It helps in reproduction.	(D)	None of the above.
33.	Which of the following is known as the bird of prey	/?	
	(A) Crow	(B)	Parrot
	(C) Eagle	(D)	None of the above
34.	Rabbit : Burrow :: : Hill		
	(A) Ant	(B)	Bull
	(C) Pig	(D)	Hen
35.	The give humans or animals some ki	nd of	information around them.
	(A) mouth	(B)	ribs
	(C) sense organs	(D)	hair

GRADE 2

4-

#### 36. Which of the following is a good source of vitamins and minerals?

- (A) Fresh fruits and vegetables
- (B) Eggs and milk
- (C) Butter toast
- (D) Chicken biryani

#### 37. Besides washing your feet every day, what else should you do every day for proper foot hygiene?

- (A) Remain barefoot at home.
- (B) Leave your shoes outside the house.
- (C) Spray perfume on your socks.
- (D) Use same footwear for home and outside.

#### 38. What happens to the waste we throw into neighbourhood bins?

- (A) Some waste rot and mix with the soil.
- (B) Ragpickers collect certain things and sell.
- (C) Both A and B.
- (D) Neither A nor B.

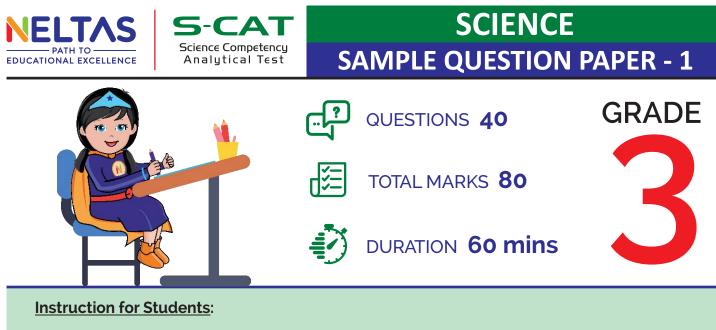
#### 39. Which of the following is built to use river water?

(A) Road(B) Bridge(C) Flyover(D) Dam

#### 40. How can noise pollution hurt your health?

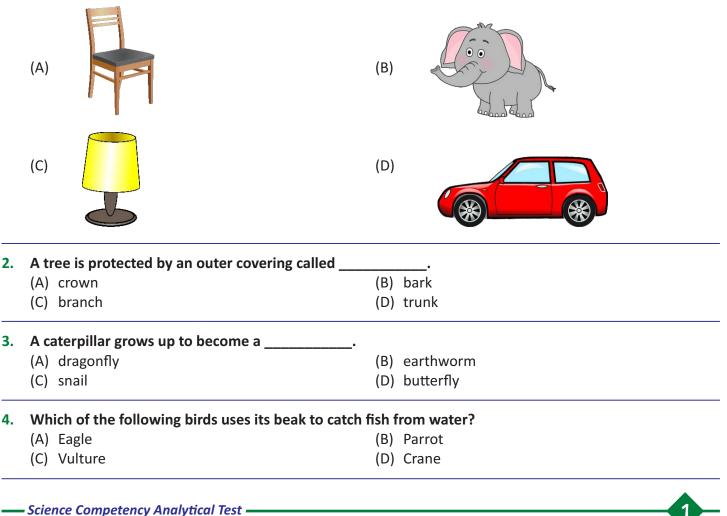
- (A) It can damage your hearing.
- (B) It can give you headaches.
- (C) It can make it difficult to sleep.
- (D) All of the above.

ANSWERS									
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
B	D	D	B	D	C	A	B	D	C
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
A	C	A	B	B	C	A	C	A	A
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>
B	C	B	D	D	D	D	B	C	A
<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>38</b>	<b>39</b>	<b>40</b>
A	C	C	A	C	A	B	C	D	D



- Read the question carefully before answering.
- Each question has 4 options (A, B, C & D).
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## 1. Choose the living thing from the pictures shown below:



## 5. The reproductive system helps in \_\_\_\_\_

- (A) producing babies
- (B) digesting food
- (C) removing waste from the body
- (D) taking breath

## 6. \_\_\_\_\_ are the air bags in our chest.

- (A) Lungs
- (C) Intestine

- (B) Brain
- (D) Stomach

### 7. How do we deduct that LPG is leaking?

- (A) Fumes in the air are visible.
- (C) By its smell

- (B) We cannot detect it
- (D) By its taste

### 8. When you see a stranger offering you a bribe to come with them, what should you do?



- (A) Do not go near him/her.
- (C) Inform your parents.

- (B) Run away from him/her.
- (D) All of the above.

### 9. How can you protect your computer from viruses?

- (A) Always remember to log off when you have finished using the computer.
- (B) Never click the links that you get from people you don't know.
- (C) Your computer will protect itself.
- (D) All of the above.

### 10. Bullying includes \_\_\_\_\_.

- (A) threat
- (B) spreading rumours about someone
- (C) verbal abuse
- (D) All of the above

## 11. Eating here helps families build relationships.

- (A) in-front of the television
- (C) at the dinner table

- (B) in our own bedrooms
- (D) All of the above

## 12. Which of the following is the best way to save water at home?

- (A) Fix the leaking taps immediately.
- (B) Don't leave the tap running while you brush your teeth.
- (C) Rinse vegetables in a pan of water rather than under the running tap.
- (D) All of the above.

## **13.** How does the water cycle begin?

	Transpiration	Precipitation
	<ul><li>(A) With the ocean's energy</li><li>(C) With the wind energy</li></ul>	<ul><li>(B) With the Sun's energy</li><li>(D) With the rain energy</li></ul>
14.	The addition of harmful materials to the environme (A) pollution (C) water cycle	ent is known as (B) conservation (D) recycle
15.	Plastic is steel. (A) heavier than (B) lighter than (C) same as (D) None of the above	
16.	Find the odd one out with respect to the state of m (A) Stone (C) Oil	<b>atter.</b> (B) Sugar (D) Bedsheet
17.	<ul> <li>Which one of the following is the characteristic of a</li> <li>(A) Living things do not grow.</li> <li>(B) Living things cannot move from place to place.</li> <li>(C) Living things need food to live.</li> <li>(D) Living things never die.</li> </ul>	living thing?
18.	Which type of plant is a sunflower? (A) Shrub (C) Tree	(B) Herb (D) Climber
19.	Insects respire through their (A) lungs (C) skin	(B) gills (D) fins
20.	<ul><li>Which of the following birds can fly to great heights</li><li>(A) Ostrich</li><li>(C) Sparrow</li></ul>	s <b>?</b> (B) Duck (D) Eagle

21. Which organ is shown in the diagram?

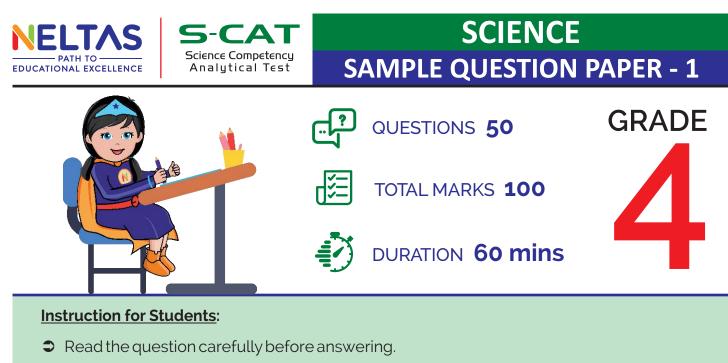
	<ul><li>(A) Lungs</li><li>(C) Stomach</li></ul>	(B) Liver (D) Heart
22.	Breathing is a part of (A) Circulation (C) Respiration	<ul><li>(B) Digestion</li><li>(D) Excretion</li></ul>
23.	<ul> <li>Pick the odd man out.</li> <li>(A) Keep the burnt area under running water</li> <li>(B) Do not run on the road.</li> <li>(C) Do not play with scissors.</li> <li>(D) Do not put a sharp object in the nose.</li> </ul>	r.
24.	What must you do if you experience bad tou (A) Tell your parents (C) Keep quiet	u <b>ch?</b> (B) Tell everybody (D) Cry
25.	<ul> <li>What is cyber bullying?</li> <li>(A) When someone does not respond to you</li> <li>(B) When anyone uses the internet, a mobile</li> <li>(C) When someone sends you an e-mail givin</li> <li>(D) All of the above.</li> </ul>	e, or other technology to deliberately upset you.
26.	If someone bullies you, you should (A) bully that kid back (B) ignore the bully (C) feel unworthy (D) None of the above	
27.	<ul> <li>Which of the following is NOT a part of heal</li> <li>(A) Sleep</li> <li>(B) Cleanliness</li> <li>(C) Physical exercise</li> <li>(D) None of the above</li> </ul>	thy living?
28.	We can obtain groundwater from (A) waterfalls (C) lakes	(B) wells (D) ponds

29.	In which of the following way the water moves from		-
	<ul><li>(A) Precipitation</li><li>(C) Evaporation</li></ul>	• •	Sublimation Condensation
		(D)	Condensation
30.	Which of the following is NOT one of the 3 R's that	-	
	(A) Recycle	• •	Reuse
	(C) Reduce	(D)	Replace
31.	Which is the following is NOT a state of matter?		
	(A) Solid		Liquid
	(C) Gas	(D)	Smoke
32.	Living things need food, and air to live.		
	(A) water	(B)	soil
	(C) salt	(D)	fuel
33.	Which of the following is a tree?		
	(A) Coriander	(B)	Rose
	(C) Coconut	• •	All of the above.
34	Our stomach is located		
54.	(A) on the left side of the body	(B)	in the head
	(C) on the right side of the body	• •	in the chest
	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	( )	
35.	What carries oxygen to all parts of the body?	<i>i</i> – 1	
	(A) Urine	• •	Blood
	(C) Saliva	(D)	None of the above.
36.	It does not have a fixed shape or size. It takes the s	hap	e and volume of the container.
	(A) Solid	(B)	Liquid
	(C) Gas	(D)	Matter
37.	Which of the following is an unhealthy habit?		
	(A) Sharing food		
	(B) Bathing every day		
	(C) Drinking boiled and filtered water		
	(D) Eating without washing hands		
38.	The natural source of pure water is		
	(A) sea	(B)	river
	(C) rain	(D)	pond
39.	What are some ways that we can keep from pollution	ng?	
	(A) We can use things that will not hurt the earth.		
	(B) We can carpool.		
	(C) We can recycle some things instead of throwing	ther	n away.
	(D) All of the above.		
40.	Liquids to change to a gas.		
	(A) condense	(B)	evaporate
	(C) freeze	(D)	None of the above.

**GRADE 3** 

5

ANSWERS									
1	2	3	4	5	6	7	8	9	10
В	В	D	D	А	А	С	С	В	D
11	12	13	14	15	16	17	18	19	20
С	D	В	А	В	С	С	А	С	D
21	22	23	24	25	26	27	28	29	30
D	С	А	А	В	D	D	В	С	D
31	32	33	34	35	36	37	38	39	40
D	А	С	А	В	А	D	С	В	В



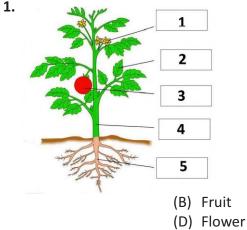
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#### 1. Which of the following belong to spices?

- (A) Oats, Jowar
- (C) Cinnamon, Black Pepper

- (B) Sunflower, Groundnut
- (D) None of the above

#### 2. Name the part labelled as 1.



- (A) Stem
- (C) Leaf
- 3. Given below is a list of some plants and the habitats in which they grow. Which one is wrongly matched?

1. Mangroves: Marshy Region	2. Coconut: Coastal Region
3. Cactus: Hilly Region	4. Guava: Plains
(A) 1 (C) 3	(B) 2 (D) 4

4. Observe the given diagram and identify the type of teeth labelled 2.

\_\_\_\_\_

			2
	<ul><li>(A) incisors</li><li>(C) premolars</li></ul>		canines molars
5.	<ul><li>What is the muscular tube that of</li><li>(A) Oesophagus</li><li>(C) Nasal cavity</li></ul>	(B)	<b>the stomach called?</b> Buccal cavity None of the above
6.	How many pairs of kidneys are t (A) 1 (C) 3	here in the human body (B) (D)	2
7.	Fruits and vegetables contain ple (A) vitamins (C) roughage	(B)	minerals All of the above
8.	<ul><li>Which of the following methods</li><li>(A) Recycling</li><li>(C) Both A and B</li></ul>	(B)	e disposal? Landfilling Neither A nor B
9.	<ul><li>(A) Air has no mass.</li><li>(C) Air exerts pressure.</li></ul>	(B)	Air is invisible. Air occupies space.
10.	Aaryan dissolved some sugar in what is the solute in this experim (A) Water (C) Sweet Water	ment? (B)	ne sweet. Sugar None of the above
11.	The process of contamination of (A) Air pollution (C) Soil pollution	(B)	tants is called Water pollution Land pollution

- 12. The unit used for measuring length is \_
  - (A) metre
  - (C) kilometre

- (B) centimetre
- (D) All of the above

#### **13.** Observe the figure given below.



The man is applying	on the cart.
---------------------	--------------

(A) work

(C) force

(B) energy(D) All of the above

- 14. Anirudh kicks a football. It rolls on the ground to some distance and stops.
  - Which force stopped the ball?
  - (A) Muscular force
  - (B) Frictional force
  - (C) Mechanical force
  - (D) Gravitational force

#### 15. Light travels in very narrow beams called \_\_\_\_\_\_.

(A) Light rays(C) Bulb rays

- (B) Electric rays
- (D) None of the above

#### 16. Which way of planting can reduce soil erosion on a steep hillside?

- (A) strip cropping
- (B) terrace cropping
- (C) crop rotation
- (D) All of the above

#### 17. Which part of the plant is responsible for absorbing water and minerals from the soil?

(A) Stem	(B) Fruit	
(C) Leaf	(D) Root	
		_

**18.** A lotus plant has \_\_\_\_\_\_.(A) long leaves

- (B) needle-like leaves
- (C) no leaves (D) broad leaves

#### **19.** There are \_\_\_\_\_ canines in each jaw.

(A) 1 (C) 3

- 20. Digested food passes into the blood through walls of the \_\_\_\_\_
  - (A) intestine (C) liver

(B) stomach

(B) 2

(D) 4

(D) None of the above



	Urine forms in the	
	(A) kidneys	(B) liver
	(C) anus	(D) None of the above
22.	Which of the following vitamins is prepared i	
	(A) Vitamin A	(B) Vitamin B
	(C) Vitamin C	(D) Vitamin D
23.	Why is burning waste not an acceptable prac	tice of solid waste management?
	(A) It is very costly.	
	(B) It requires modern technologies.	
	(C) It causes environmental problems.	
	(D) All of the above.	
24.	Which of the following gases make up maxim	num part of the air?
	(A) Nitrogen and carbon dioxide	(B) Oxygen and carbon dioxide
	(C) Oxygen and nitrogen	(D) None of the above
25.	Which of the following is soluble in water?	
-	(A) Sugar	(B) Salt
	(C) Detergent	(D) All of the above
26.	Air pollution may cause	
201	(A) Global warming	(B) Acid rain
	(C) Respiratory diseases	(D) All of the above
27.	The amount of liquid that a container can hole (a) bits series of the se	
	(A) kilometre	(B) litre
	(C) gram	(D) None of the above
28.	An apple fall down a tree because	
	(A) it cannot fly	(B) of gravitational force
	(C) got detached from the tree	(D) All of the above
29.	Which of the following statements is true?	
	(A) Friction makes a moving object move fast	ier.
	(B) Friction decreases if roughness of an obje	ect increases.
	(C) Friction between two surfaces will produce	ce heat.
	(D) None of the above.	
30.	What does 'I' stand for in the VIBGYOR?	
-	(A) India	(B) Indigo
	(C) Igloo	(D) None of the above
31.	tree never shed all their leaves a	at a time.
-	(A) An evergreen	(B) Conifers
	(C) Deciduous	(D) None of the above
32.	Where is the shoot of a plant located?	
	(A) Below the ground	(B) Above the ground
	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·

**GRADE 4** 

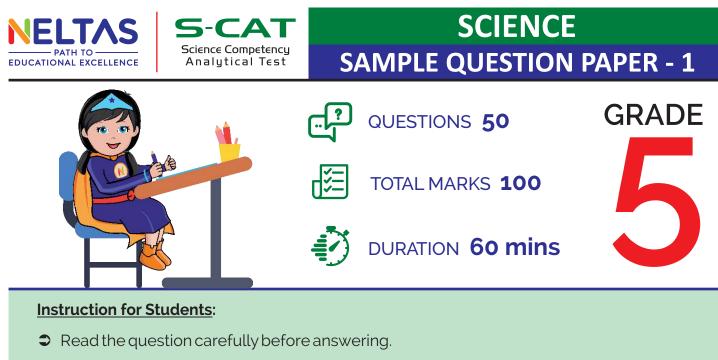
33.		-	deceives its enemy by merging its colour with that est suit a chameleon to hide from its enemies in a				
	jungle while it sits on the grass?						
	(A) Yellow	(B)	Brown				
	(C) Green	(D)	Grey				
34.	The outermost part of the teeth is called	•					
	(A) enamel	(B)	plaque				
	(C) gum	(D)	None of the above				
35.	Food in the mouth is called						
	(A) chyme	(B)	undigested food				
	(C) bolus	(D)	None of the above				
36.	Excretory system consists of						
	(A) liver	(B)	intestine				
	(C) stomach	(D)	None of the above				
37.	A balanced diet is a						
	(A) that contains all the nutrients in the correct	proporti	ons				
	(B) that contains some of the nutrients in the co	orrect pro	oportions				
	(C) that contains most of the nutrients in the co	orrect pro	portions				
	(D) that contains none of the nutrients in the co	orrect pro	oportions				
38.	Which of the following order of waste management is the best?						
	(A) Prevention-Reuse-Recycle-Disposal						
	(B) Prevention-Recycle-Reuse-Disposal						
	(C) Prevention-Reuse-Disposal-Recycle						
	(D) Prevention-Disposal-Reuse-Recycle						
39.	Layer of air that surrounds the earth is known a	as					
	(A) the universe	(B)	space				
	(C) the atmosphere	(D)	None of the above				
40.	How can we separate sand from water?						
	(A) By evaporation		By filtration				
	(C) By boiling	(D)	All of the above				
41.	Which of the following ways can stop water pol	llution?					
	(A) Clean up litter in water bodies						
	(B) Dispose of waste materials properly						
	(C) Avoid using plastic						
	(D) All of the above						
42.	Which one of the following is correct?						
	(A) 1 minute = 60 seconds	(B)	1 minute = 60 hours				
	(C) 1 hour = 60 seconds	(D)	None of the above				
43.	In which of the following activities is the force u	used for	pulling?				
	(A) Blowing a balloon	(B)	Stretching an elastic band				
	(C) Riding a bike	(D)	All of the above				
	Science Competency Analytical Test						
	Science Competency Analytical Test		5				

**GRADE 4** 

	(A) Muscular force	(B) Gravitational force
	(C) Mechanical force	(D) Frictional force
45.	Polished metals are	
	(A) shiny	(B) smooth
	(C) reflect light well	(D) All of the above
<b>16</b> .	Which part of the plant attracts insects	to help the plant reproduce?
	(A) Flower	(B) Fruit
	(C) Leaf	(D) Root
47.	The feet of duck and frog are webbed. 1	This adaptation helps them in
	(A) swimming	(B) grabbing branches firmly
	(C) flying	(D) catching insects
48.	Which of the following is right to keep o	our teeth healthy?
	(A) Avoid eating chocolates	(B) Visit the dentist regularly
	(C) Brush teeth twice a day	(D) All of the above
49.	Waste is stored in the befo	re it gets removed from the body.
	(A) small intestine	(B) large intestine
	(C) rectum	(D) None of the above
50.	Urine exits the bladder and the body th	rough a tube called the
	(A) Ureters	(B) Rectum
	(C) Urethra	(D) Bladder

**GRADE 4** 

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



- Each question has 4 options (A, B, C & D).
- Grand Finale Marking System: Each correct answer carries 2 marks.
   For each unattempted question, 2 marks will be deducted.
   For each wrong answer, 2.5 marks will be deducted.
- Grand Finale Result will be declared Online after 45 days from the exam date. To know your Result, login to www.neltas.com and use given Seat Number.

#### 1. Which of the following is a female part of a flower?

(A)	Stamen (	B)	Carpel
	Stamen	<i>U</i> ,	Curper

- (C) Anther (D) Pollen
- 2. Which joint enables us to move our arms as shown in the given picture?



- (A) Pivot
- (C) Hinge

- (B) Gliding
- (D) Ball and Socket
- 3. Vitamin A : Night blindness :: Vitamin B : \_\_\_\_\_
  - (A) Scurvy
  - (C) Beriberi

- (B) Rickets
- (D) None of the above

#### 4. A substance intentionally added that affects the nature and quality of food is called \_\_\_\_\_\_

- (A) Food poison
- (C) Food adulterant

- (B) Food contaminant
- (D) All of the above

#### 5. Due to deforestation (A) amount of nitrogen in the air will decrease (B) amount of oxygen in the air will increase (C) amount of carbon dioxide in the air will decrease (D) amount of carbon dioxide in the air will increase 6. Car : Petrol :: Truck : \_\_\_\_\_ (A) Diesel (B) Petrol (C) CNG (D) LPG 7. The gaseous form of water is known as \_\_\_\_\_\_. (A) water vapour (B) evaporation (C) condensation (D) None of the above The phenomenon of remaining on the surface of a liquid without sinking is called \_\_\_\_\_\_. 8. (A) buoyancy (B) compression (C) weightlessness (D) floatation 9. A car travels 32 metres in 4 seconds. What is its speed? (A) 128 metres per second (B) 36 metres per second (C) 28 metres per second (D) 8 metres per second 10. The amount of space occupied by a substance is known as its \_\_\_\_\_ (A) area (B) volume (D) Neither A nor B (C) Both A and B 11. Which of these travels faster - Sound or Light? (A) Light (B) Sound (C) Both travel at the same speed (D) None of the above 12. The S.I unit of work is \_\_\_\_\_\_. (A) newton-meter (B) Joule (C) Both A and B (D) Neither A nor B 13. Which of the following is the example of kinetic energy? (A) Anu is sleeping. (B) A fan is switched off. (C) A train is moving. (D) Nili is watching television. light can be separated into a rainbow of colours. 14. (A) Ultraviolet (B) White (C) Infrared (D) All of the above

## 15. Cooking utensils are made of metals because they \_\_\_\_\_\_.

- (A) are durable
- (B) are malleable
- (C) are good conductors of heat
- (D) do not break on heating

## **16.** Which of the following parts of a plant take part in sexual reproduction?

- (A) Seed
- (C) Roots

- (B) Fruit
- (D) None of the above
- **17.** Observe the diagram shown below:



#### Name the organ does it protect in our body.

- (A) Lungs
- (C) Both A and B

(B) Heart

(D) Neither A nor B

18.	. Arjun lives in a hilly region. He is suffering from swelling in his neck. Which disease he may be suffering from?							
		Scurvy	(B)	Goitre				
	• •	Beriberi	( )	Rickets				
19.	Wh	en do we say that food is ad	lulterated?					
	(A)	If any ingredient is injurious	to health.					
	(B)	If meat that is obtained from	n a diseased animal.					
	(C) If spices are sold do have their typical smell.							
	(D)	None of the above.						
20.	Gro	wing more tree in the fores	t is called					
	(A)	afforestation	(B)	deforestation				
	(C)	Both A and B	(D)	Neither A nor B				
21.	We	can fuel b	y using public transport.					
	(A)	deplete	(B)	finish				
	(C)	save	(D)	None of the above				
22.		is an example	of a substance that can	sublime?				

#### ·· \_\_\_\_

(A) Water

- (B) Oxygen
- (C) Carbon dioxide (Dry ice)

# 23. Which of the following machines convert the energy of free-flowing water into useful form?

- (A) Windmill
- (C) Waterwheel

(B) Potter's wheel

(D) All of the above

(D) All of the above



26.	Sound waves move									
	(A) in the opposite direction of the source									
	(B) in all directions toward the source									
	(C) in the same direction as the source									
	(D) in all direc	ctions away	from the source							
27.	In which of th	In which of the following cases is the work done?								
	Case 1	You pu	sh the door and th	e door ope	ns.					
	Case 2	You pu	sh the door and th	e door doe	s not op	en.				
	(A) Case 1			(B)	Case 2					
	(C) Both A an	d B		. ,	Neither	A nor B				
28.	What kind of	energy doe	s a stretched rubbe	er band have	?					
	(A) Kinetic	•			Electric					
	(C) Nuclear			(D)	Potentia	I				
29.	Shalu can hea	r the peop	e talking in the roo	m but canno	ot see wh	o they are, becaus	e the door is			
	(A) translucer	nt		(B)	opaque					
	(C) transpare	nt		(D)	None of	the above				
30.		is a dev	rice used to measur	e the degree	e of coldr	ness or hotness of a	an object.			
	(A) Manomet	er		(B)	Thermo	meter				
	(C) Baromete	r		(D)	None of	the above				
31.	The ovaries of	different f	lowers may contair	۱	·					
	(A) one or mo	ore ovules								
	(B) only one o									
	(C) many ovu									
	(D) only two o	ovules								
32.	Look at the lis	t given bel	ow:							
	Collar bo	one	Ribcage	Backbo	one	Femur				
	To which body	/ system do	es this list belong?							
	(A) C:			(D)	<b>F</b>					

- (A) 9 m (C) 3 m

# 25. Find the length of one edge of a cube whose volume is 27 cubic m.

- (A) decametre
- (C) metre

- (B) kilometre
- (D) centimetre

4

- (B) 3 cm
- (D) None of the above

	Collar bone	Ribcage	Backbone	Femur
-	To which body system	does this list belong	?	
(	(A) Circulatory		(B) Excretor	ſy
(	(C) Muscular		(D) Skeletal	
33.	(C) Muscular Lack of vitamin 'C' in t (A) Scurvy	the food causes	(D) Skeletal   (B) Goitre	
	(C) Beriberi		(D) Rickets	

34.	<ul> <li>How does adulteration impact the economy?</li> <li>(A) People falling sick → Spending money on treatment</li> <li>(B) People falling sick → Spending money on court cases</li> <li>(C) People falling sick → Spending money on treatment and court cases</li> <li>(D) None of the above</li> </ul>								
35.	Which of the following activities are pr	ohibited in national parks and sanctuaries?							
	(A) Poaching	(B) Felling trees							
	(C) Hunting	(D) All of the above							
36.	Which of the following has a definite s	nape and volume?							
	(A) Liquid	(B) Solid							
	(C) Gas	(D) All of the above							
37.	Which of the following determines wh	ether an object will float or sink?							
	(A) Density	(B) Area							
	(C) Weight	(D) Volume							
38.	Substances with larger masses such as	sacks of grains are usually measured in							
	(A) kilograms	(B) grams							
	(C) metric tonnes	(D) tones							
39.	Rustling of leaves is an example of								
	(A) soft sound	(B) loud sound							
	(C) Both A and B	(D) Neither A nor B							
40.		of the object or changes the of t							
	<ul> <li>object or changes the</li></ul>	and size of the object, it is said that work is done.							
	<ul><li>(A) position, shape, movement</li><li>(B) shape, movement, position</li><li>(C) movement, position, shape</li><li>(D) None of the above</li></ul>								
	<ul><li>(A) position, shape, movement</li><li>(B) shape, movement, position</li><li>(C) movement, position, shape</li></ul>								
	<ul> <li>(A) position, shape, movement</li> <li>(B) shape, movement, position</li> <li>(C) movement, position, shape</li> <li>(D) None of the above</li> </ul> What kind of energy is used to operate	and machines, fans, etc.?							
41.	<ul> <li>(A) position, shape, movement</li> <li>(B) shape, movement, position</li> <li>(C) movement, position, shape</li> <li>(D) None of the above</li> </ul> What kind of energy is used to operate <ul> <li>(A) Kinetic</li> </ul>	and machines, fans, etc.? (B) Electric (D) Thermal							
41.	<ul> <li>(A) position, shape, movement</li> <li>(B) shape, movement, position</li> <li>(C) movement, position, shape</li> <li>(D) None of the above</li> </ul> What kind of energy is used to operate <ul> <li>(A) Kinetic</li> <li>(C) Nuclear</li> </ul>	and machines, fans, etc.? (B) Electric (D) Thermal							
41.	<ul> <li>(A) position, shape, movement</li> <li>(B) shape, movement, position</li> <li>(C) movement, position, shape</li> <li>(D) None of the above</li> </ul> What kind of energy is used to operate <ul> <li>(A) Kinetic</li> <li>(C) Nuclear</li> </ul> A mirror has a flat an	and machines, fans, etc.? (B) Electric (D) Thermal							
41. 42.	<ul> <li>(A) position, shape, movement</li> <li>(B) shape, movement, position</li> <li>(C) movement, position, shape</li> <li>(D) None of the above</li> </ul> What kind of energy is used to operate <ul> <li>(A) Kinetic</li> <li>(C) Nuclear</li> </ul> A mirror has a flat an <ul> <li>(A) spherical</li> </ul>	and machines, fans, etc.? (B) Electric (D) Thermal d smooth surface. (B) plane (D) concave							
41. 42. 43.	<ul> <li>(A) position, shape, movement</li> <li>(B) shape, movement, position</li> <li>(C) movement, position, shape</li> <li>(D) None of the above</li> </ul> What kind of energy is used to operate <ul> <li>(A) Kinetic</li> <li>(C) Nuclear</li> </ul> A mirror has a flat an <ul> <li>(A) spherical</li> <li>(C) convex</li> </ul> It is better to wear dark coloured cloth <ul> <li>(A) a cold winter day</li> <li>(B) a hot summer day</li> <li>(C) Both A and B</li> <li>(D) Neither A nor B</li> </ul> The part which contains pollen grains i	and machines, fans, etc.? (B) Electric (D) Thermal d smooth surface. (B) plane (D) concave es during							
41. 42. 43.	<ul> <li>(A) position, shape, movement</li> <li>(B) shape, movement, position</li> <li>(C) movement, position, shape</li> <li>(D) None of the above</li> </ul> What kind of energy is used to operate <ul> <li>(A) Kinetic</li> <li>(C) Nuclear</li> </ul> A mirror has a flat an <ul> <li>(A) spherical</li> <li>(C) convex</li> </ul> It is better to wear dark coloured cloth <ul> <li>(A) a cold winter day</li> <li>(B) a hot summer day</li> <li>(C) Both A and B</li> <li>(D) Neither A nor B</li> </ul>	and machines, fans, etc.? (B) Electric (D) Thermal d smooth surface. (B) plane (D) concave es during							
41. 42. 43.	<ul> <li>(A) position, shape, movement</li> <li>(B) shape, movement, position</li> <li>(C) movement, position, shape</li> <li>(D) None of the above</li> </ul> What kind of energy is used to operate <ul> <li>(A) Kinetic</li> <li>(C) Nuclear</li> </ul> A mirror has a flat an <ul> <li>(A) spherical</li> <li>(C) convex</li> </ul> It is better to wear dark coloured cloth <ul> <li>(A) a cold winter day</li> <li>(B) a hot summer day</li> <li>(C) Both A and B</li> <li>(D) Neither A nor B</li> </ul> The part which contains pollen grains i	and machines, fans, etc.? (B) Electric (D) Thermal d smooth surface. (B) plane (D) concave es during							

### 45. Observe the diagram shown below:

45.	Observe the diagram shown below: 2 -	1 3 Tarsals 4
	Name the part labelled 1.	
	(A) Phalanges	(B) Tibia
	(C) Fibula	(D) Femur
46.	The conversion of ice into water is an exam	iple of
	(A) evaporation	(B) melting
	(C) sublimation	(D) freezing
47.	Seawater is not fit for drinking due to the p	presence of
	(A) aquatic animals	(B) aquatic plants
	(C) poisons	(D) dissolved salts
48.	Hammering of a nail is an example of	
	(A) soft sound	(B) loud sound
	(C) Both A and B	(D) Neither A nor B
49.		

#### 50. Which of the following is an insulator?

- (A) Wood
- (C) Both A and B

- (B) Plastic
- (D) Neither A nor B

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

EDU	PATH TO CATIONAL EXCELLENCE	Science Competency Analytical Test	S	SCIENCE AMPLE QUESTION			
		<u>.</u>	<b>ب</b> ت	QUESTIONS 50	GRADE		
		A B		TOTAL MARKS 100	R		
			Ð	duration <b>60 mins</b>			
	Instruction for S	itudents:					
	•	estion carefully befo		enng.			
		n has 4 options (A, B,	, C & D).				
	<ul> <li>Grand Finale Marking System:- Each correct answer carries 2 marks.</li> <li>For each unattempted question, 2 marks will be deducted.</li> <li>For each wrong answer, 2.5 marks will be deducted.</li> </ul>						
				ine after 45 days from the exa use given Seat Number.	am date. To know		
1.	The part of a plan	t that plays an import	ant role i	n reproduction is .			
	(A) root	., .		(B) flower			
	(C) leaf			(D) stem			
2.	<ul> <li>Which of the following cannot be called a habitat?</li> <li>(A) A desert with camel</li> <li>(B) A jungle with wild animals</li> <li>(C) A pond with fishes</li> <li>(D) Cultivated land with grazing cattle</li> </ul>						
3.	Which of the follo	wing part of the cell t	that conta	ins pigment?			
	(A) Cell membran			(B) Plasmid			
	(C) Plastid			(D) Chromosome			
4.	The main function	n of the lacteals of the	intestine	e is the absorption of			
	(A) amino acids						
	(B) glucose and v	itamins					

- (C) lactic acid
- (D) fatty acids and glycerol

## 5. Taking in of the air through nostrils into the body is known as \_\_\_\_\_\_.

- (A) exhalation
- (B) cellular respiration
- (C) tissue respiration
- (D) inhalation

-

2 -

6.	Afte	d out from the wound. on the same spot on her knee. ot?		
		ich component of the blood might have formed th Red blood cells		White blood cells
	• •	Platelets	• •	Plasma
7.	Ma	laria is caused by		
	(A)	bacteria	(B)	protozoan
	(C)	virus	(D)	None of the above
8.	Wh	ich of these includes culturing of earthworms?		
	(A)	Sericulture	(B)	Pisciculture
	(C)	Vermicomposting	(D)	None of the above
9.	Div	ers carry oxygen cylinders with them because		·
	(A)	oxygen keeps them warm		
	(B)	oxygen is required for breathing		
	(C)	Both A and B		
	(D)	Neither A nor B		
10.	Clo	uds are formed due to		
	(A)	evaporation	(B)	condensation
	(C)	Both A and B	(D)	Neither A nor B
11.	Wh	ich one of the following is a synthetic fibre?		
	(A)	Polyester	(B)	Nylon
	(C)	Rayon	(D)	All of the above
12.	Wh	ich of the following statements is true about a n	nixtu	ıre?
	(A)	It is made up of pure substances.		
	(B)	It can be solid, liquid or gas.		
	(C)	Components do not retain their original propert	es.	
	(D)	Both A and B.		
13.	The	letter used to identify an element in the period	ic ta	ble is known a
	(A)	formula	(B)	hint
	(C)	sign	(D)	symbol
14.	7 ki	lometres are equal to		
	(A)	7,00,000 metre	(B)	7,000 metre
	(C)	700 metre	(D)	70,000 metre
15.	A fo	orce does not change		
	(A)	size	(B)	shape
	(C)	mass	(D)	state of motion
16.	Ma	ss is the measure of in an object.		
	(A)	weight	(B)	matter
	(C)	density	(D)	None of the above

17.	Mechanical advantage of a machine is defined as						
		effort	load				
			pivot				
	(A) Load (C) Load		<ul><li>(B) Load / Effort</li><li>(D) Load - Effort</li></ul>				
18.	An organ	of a plant that absorbs water an	d mineral salts from the soil is known as				
	(A) root	·	(B) flower				
	(C) leaf		(D) stem				
19.	Which is I	not an abiotic component of the	environment?				
	(A) Soil	·	(B) Bacteria				
	(C) Wate	r	(D) Air				
20.	Ribosome	e helps in the production of	•				
	(A) vitam		(B) glucose				
	(C) fat		(D) protein				
21.	Read the following statements with reference to the villi of the small intestine.						
	(i)	They have very thin walls.					
	(ii)	(ii) They have a network of thin and small blood vessels close to the surface.					
	(iii)	ii) They have small pores through which food can easily pass.					
	(iv)	They are finger-like project	ons.				
	Identify t	hose statements which enable th	e villi to absorb digested food.				
	(A) (i), (ii		(B) (ii), (iii) and (iv)				
	(C) (iii) ai	nd (iv)	(D) (i) and (iv)				
22.	The breakdown of food particles takes place inside the cell. During this process, lots of energy release out.						
		process helps the cell to perform	this function?				
	(A) Excre		(B) Digestion				
	(C) Repro	oduction	(D) Cellular respiration				
23.	compared		to circulate water in the house pipes. If our blood vessels are er, then what organ of the human body acts as a water pump that ly?				
	(A) Kidne	-	(B) Liver				
	(C) Heart		(D) Lungs				
24.	Which of	the following pathogens cause to	uberculosis?				
	(A) Bacte	ria	(B) Virus				

(C) Protozoa

- (D) None of the above

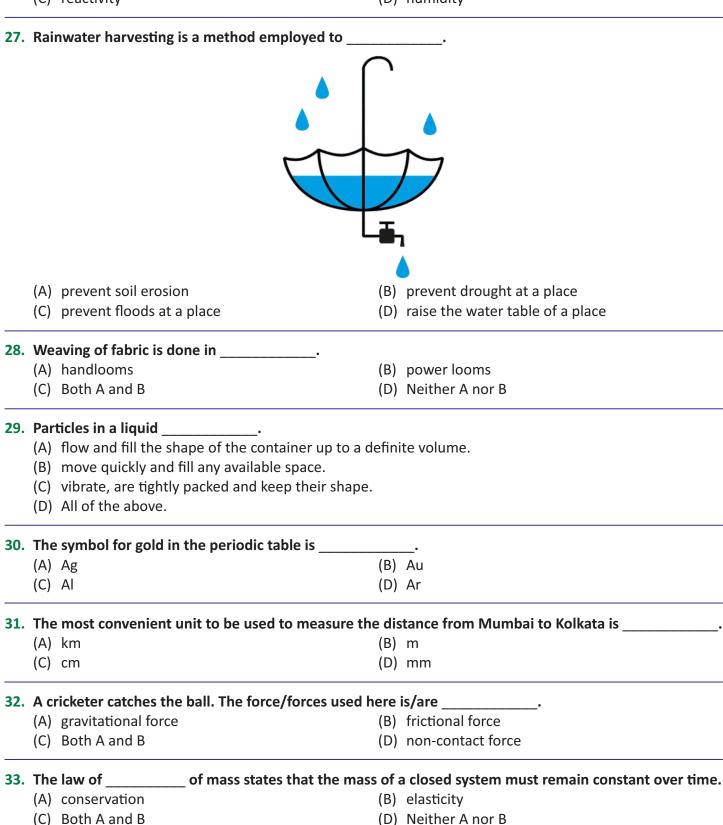
## 25. Which kind of materials is to be collected in blue coloured bins?

- (A) Materials that can be recycled
- (B) Plastics
- (C) Metals
- (D) Wood

#### 26. The content of water vapour present in the air is called \_

- (A) density
- (C) reactivity

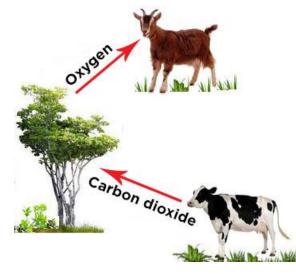
(B) solubility(D) humidity



## 34. Wheel is used with an axle because

- (A) Sliding friction is less than the rolling friction
- (B) Rolling friction is less than the sliding friction
- (C) Both A and B
- (D) Neither A nor B

## 35. What does the given figure represent?



- (A) Interdependence between plants and animals
- (B) Interdependence between plants
- (C) Interdependence between animals
- (D) Interdependence between abiotic factors

#### 36. Who discovered the cell in 1665?

- (A) Robert Brown
- (C) Robert Hook

- (B) Robert Crook
- (D) None of the above
- 37. The food that humans eat contains lots of nutrition. These nutrients cannot be directly absorbed by the body. It must have to be breakdown into smaller particles, and after that, these molecules get absorbed by the blood. Which life process helps humans to breakdown the food?
  - (A) Excretory system
  - (B) Respiratory system
  - (C) Digestive system
  - (D) Nervous system

#### 38. Which picture shows the least amount of protection for our respiratory system?



(C) C

(B) B (D) D



#### 39. The doctor placed the chest piece of a stethoscope on the patient's chest and earpieces of the stethoscope into his ears. He could hear some thumping sound. What sound is the doctor listening?

- (A) Heartbeat
- (C) Pulse

42.

43.

- (B) Blood pressure (D) Breaths
- 40. How is malaria usually transmitted to humans?
  - (A) By insect bite
  - (C) By contaminated water

- (B) By contaminated food
- (D) All of the above

#### 41. Arshiya buried the following in her garden to dispose them off:

An egg shell	Pencil shavings	Dry leaves	Plastic carry bags			
If this area is dug up after (A) An eggshell (C) Plastic carry bags	a few years, which of thes	e is most likely to have rer (B) Pencil shavings (D) Dry leaves	nain unchanged?			
Plants require nitrogen for         (A) growth       (B) reproduction         (2) a basis of the set of the s						
 (C) photosynthesis       (D) All of the above         Observe the diagram shown below:						
evaporation	precipitation	condensation				
100	transp	viration	evaporation			

#### Which of the following processes is shown above?

- (A) Water cycle
- (C) Rainwater harvesting

- (B) Soil erosion
- (D) None of the above

#### 44. Ashrita went to a cloth shop. She found a fabric that was smooth to touch, had vibrant colour and shine. This fabric could be

- (A) wool (C) silk
  - (B) cotton
  - (D) jute

#### 45. Distillation = + Condensation

- (A) Sublimation
- (C) Evaporation

- (B) Precipitation
- (D) None of the above

6

	(A) elastic and non-elastic	(B) solid and liquid
	(C) solid and gas	(D) metal and non-metal
<b>17</b> .	The distance between Sandra and Parul's h	nome is 1563 m. This distance is equal to
	(A) 15.63 km	(B) 1.563 km
	(C) 156.3 km	(D) None of the above
48.	A body falls downwards because of	•
	(A) electrical force	(B) gravitational force
	(C) mechanical force	(D) magnetic force
49.	The difference between mass and weight i	s
	(A) mass is a force and weight is a quantity	
	(B) mass is a quantity and weight is a force	
	(C) Both A and B	
	(D) Neither A nor B	

**GRADE 6** 

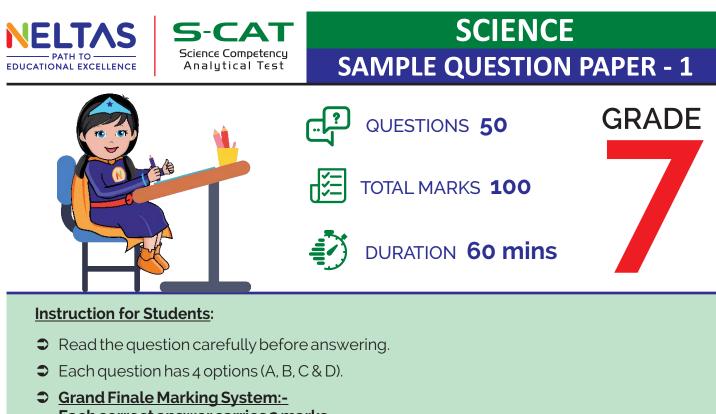
7

- (A) Lever
- (C) Wedge

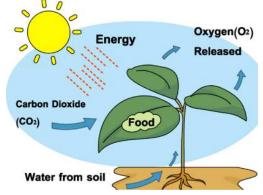
**NELTAS S-CAT** 

(D) Screw

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



- Each correct answer carries 2 marks. For each unattempted question, 2 marks will be deducted. For each wrong answer, 2.5 marks will be deducted.
- Grand Finale Result will be declared Online after 45 days from the exam date. To know your Result, login to www.neltas.com and use given Seat Number.
- 1. The image shows how plants obtain carbon dioxide and water from the surroundings.



#### Based on the image, state the mode of nutrition in plants?

- (A) Heterotrophic, as plant obtain prepared food in the form of water and carbon dioxide.
- (B) Autotrophic, as the plant prepares its own food using water and carbon dioxide.
- (C) Heterotrophic, as plant consumes food prepared by other organisms.
- (D) Autotrophic, as plant obtains food in the form of sunlight.
- 2. The list below shows some animals that acquire their food with different modes of feeding:

LICE	SNAKE	BUTTERFLY
SNAIL	ANT	MOSQUITO

#### Which two animals of the following animals suck their food?

- (A) Lice and ants
- (C) Butterfly and ants

- (B) Snails and snakes
- (D) Lice and mosquito

3.	<ul> <li>The kidney is an organ that contains blood capillaries that helps in the filtration of blood.</li> <li>The useful substances get absorbed by the blood.</li> <li>Which of the following describes the fate of harmful substances?</li> <li>(A) Harmful substances get accumulated in the kidney and are released out as sweat.</li> <li>(B) Harmful substances get absorbed by the blood and then are delivered to the lungs for filtration.</li> <li>(C) Harmful substances dissolve in water and then are delivered back to the kidney for filtration.</li> <li>(D) Harmful substances dissolve in water and are removed from the body as urine.</li> </ul>							
4.	<ul> <li>Medulla oblongata controls</li> <li>(A) smelling</li> <li>(B) beating of heart and respiratory movement</li> <li>(C) intelligence and will power</li> <li>(D) balancing of the body</li> </ul>							
5.	Carbohydrate is stored in plants in the form of _	·						
	(A) proteins	(B) fats						
	(C) vitamins	(D) starch						
6.	When do seasonal allergy occur?							
	(A) Every season	(B) Throughout the year						
	(C) Every month	(D) None of the above						
7.	A group of living organisms which are closely related and can breed among themselves are called							
	(A) species	(B) phylum						
	(C) genus	(D) kingdom						
8.	Fluid connective tissue in humans consists of							
	(A) blood and lymph	(B) blood and matrix						
	(C) lymph and plasma	(D) lymph and cytoplasm						
9.	A separation technique which is used to obtain liquid from a solution by heating, is called							
	(A) distillation	(B) centrifugation						
	(C) filtration	(D) evaporation						
10.	Valency of sodium is							
	(A) 1	(B) 2						
	(C) 3	(D) 4						
11.	<ul> <li>Metallurgy is a process of</li> <li>(A) extracting metal from its mineral</li> <li>(B) extracting metal from its ore</li> <li>(C) extracting metal from its pure ore</li> <li>(D) extracting pure metal from its ore</li> </ul>							
12.	Chalk, limestone, marble, eggshells and seashel	Is are made of						
	(A) calcium hydroxide	(B) calcium carbonate						
	(C) calcium oxide	(D) calcium chloride						
13.	Which of these mixtures represents a neutralization reaction?							
	(A) Acid + Water	(B) Acid + Acid						
	(C) Base + Water	(D) Acid + Base						
	Science Competency Analytical Test	2						

**NELTAS S-CAT** 

# 14. Which of the following are indicators that a chemical change has occurred in a substance?

(B)  $O_{2}$ 

- (A) The expansion in the size of material upon being heated
- (B) A substance breaking into smaller pieces of itself
- (C) Irreversibility of a substance after heating
- (D) A substance not resuming its original shape, after being pressed

# 15. In which form does oxygen exists normally in the atmosphere?

- (A) O
- (C) O<sub>3</sub> (D) None of the above

# **16.** Which of the following materials is a good conductor of heat?

(A) Wood(B) Plastic(C) Stone(D) Metal

# 17. Which of these defines the speed of an object?

- (A) Total distance covered divided by the total time taken
- (B) The size of the object and the distance covered
- (C) Total distance covered multiplied by the total time taken
- (D) The length of space between two particular points

#### 18. Janifer's dad explains to her that a fuse wire helps in protecting electrical appliances. What role does the fuse wire play in an electrical appliance?

- (A) It reduces the consumption of electricity.
- (B) It avoids overheating of an electrical appliance.
- (C) It helps to avoid the passing of large current.
- (D) It helps in storage of electricity for further use.

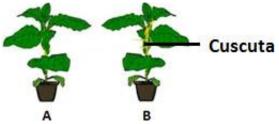
19. If the bar magnet is carefully cut in half into two smaller magnets, they will each have \_\_\_\_\_

- (A) only north poles.
- (B) north and south poles.
- (C) only south poles.
- (D) neither north nor south poles.

# 20. Wheels on skateboard experiences \_\_\_\_

- (A) sliding Friction
- (C) static Friction

- (B) rolling Friction
- (D) fluid Friction
- 21. Cuscuta is a plant that lacks chlorophyll. It is a yellow wiry branched structure that climbs on other plants to obtain food. Kiya sets up an experiment using two potted plants, one with Cuscuta and other without it as shown below:



# Which of these plants will show more growth?

- (A) Plant A, as Cuscuta shares chlorophyll of the host plants to synthesis its own food.
- (B) Plant B, as Cuscuta shares its readymade food with host plants to increase their combined growth.
- (C) Plant A, as Cuscuta uses readymade food of the plant B that weakens the host plant.
- (D) Plant B, as Cuscuta provides valuable nutrients to host plants for photosynthesis.

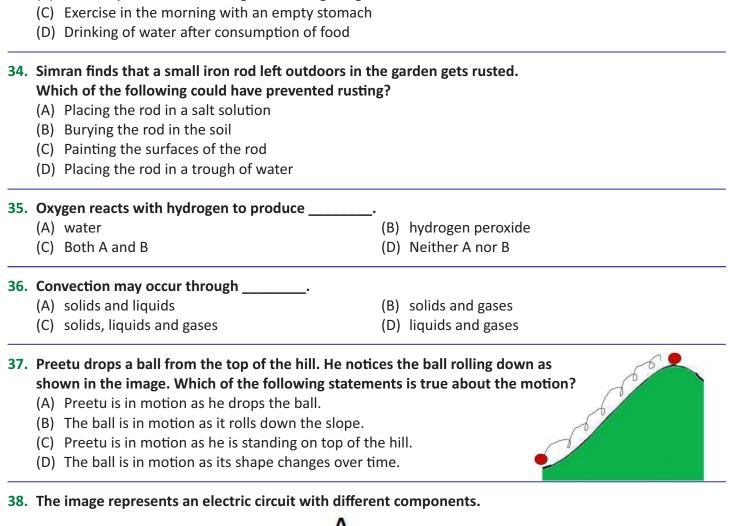


# **NELTAS S-CAT**

4

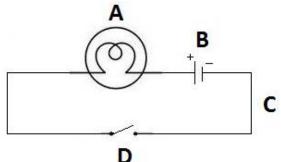
<ul><li>22. Humans chew the food only when they have food in their mouths, whereas cows chew contineven when they are not eating grass. What could be the reason behind this fact?</li><li>(A) Cows chew continuously because cud, the partially digested food, returns to their mouth in lumps.</li></ul>									
	<ul> <li>(B) Cows chew continuously to collect saliva in their mouth so that more bacteria can be formed in their mouth.</li> <li>(C) Cows chew continuously because they store undigested grass in their mouth.</li> </ul>								
(C) Cows chew continuously because they store undigested grass in their mouth. (D) Cows chew continuously to remove the stuck food particles from their mouthparts.									
23.	3. The kidneys are made up of tubular units called								
	(A) neurons	(B) capillaries							
	(C) nephrons	(D) glomerulus							
24.	The spinal cord is an extension of								
	(A) medulla oblongata	(B) cerebellum							
	(C) cerebrum	(D) vertebral column							
25.	Stomata are present on the surface of								
	(A) leaves	(B) roots							
	(C) stem	(D) flowers							
26.	Which symptom occurs commonly due to pollen a	Illergy?							
	(A) Skin rashes	(B) Vomiting							
	(C) Wheezing	(D) Stomach ache							
27.	The branch of biology which deals with classificat								
	(A) entomology	(B) anatomy							
	(C) taxonomy	(D) morphology							
28.	A group of similar types of cells that perform a sp								
	(A) species								
	(C) tissue	(D) organ system							
29.	When different gases are mixed to form the air, th	ere is/are							
	(A) chemical reaction								
	(B) both chemical and physical reaction								
	<ul><li>(C) no physical reaction</li><li>(D) no chemical reaction</li></ul>								
30.	Atoms of elements	(D) connet exist independently							
	<ul><li>(A) can exist independently</li><li>(C) may or may not exist independently</li></ul>	<ul><li>(B) cannot exist independently</li><li>(D) None of the above</li></ul>							
	(c) may of may not exist independently								
31.	Elements that are brittle and cannot be rolled into								
	<ul><li>(A) liquid</li><li>(C) metal</li></ul>	(B) non-elastic (D) non-metal							
		נטן ווטוו-וווכנמו							
32.	If baking soda or fruit salt is mixed with vinegar, the second se								
	(A) chemical reaction	(B) transference							
	(C) physical reaction	(D) both a and b							

(A) Meditation before going to bed



33. Which of these activities represents a neutralization reaction in everyday life?

(B) Consumption of milk of magnesia during indigestion



Which of the marked components represents a battery in the circuit?

(A) A

- (B) B (D) D
- (C) C

#### **39.** You hold a magnetic compass and observe the needle spin until it points north. The north end of the compass needle points toward Earth's \_\_\_\_\_.

(A) geographic south pole.

(B) magnetic north pole.

(C) magnetic south pole.

(D) geographic north pole.

#### 40. Friction between moving parts of machine causes \_

(A) light

(B) heat

(C) energy

(D) All of the above

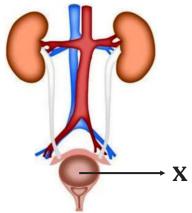
– Science Competency Analytical Test –

#### 41. Which of the following statement defines the term 'nutrition'?

- (A) It is the mode of obtaining food by the individual.
- (B) It is the mode of eliminating food by the individual.
- (C) It is the amount of food present in the body.
- (D) It is the components of food required by the body.

#### 42. The false feet of Amoeba are used for

- (A) movement only
- (C) capture of food and movement
- (B) capture of food only
- (D) exchange of gases only
- 43. The given image shows the excretory system in humans:



#### What is the importance of the labelled part in the excretory system?

- (A) It filters waste from the blood.
- (B) It produces urine.
- (C) It carries urine from the kidney to outside.
- (D) It stores the urine till urination.

44. Phenolphthalein is a synthetic indicator and its colours in acidic and basic solutions, respectively are:

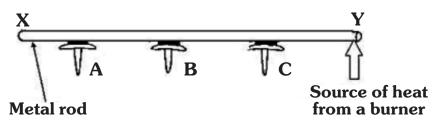
- (A) red and blue
- (C) colourless and pink

- (B) pink and colourless
- (D) blue and red

#### 45. Which of the following is a physical change?

- (A) Rusting of iron
- (C) Burning of candle

- (B) Combustion of magnesium ribbon
- (D) Melting of wax
- 46. Several nails were attached to a metallic rod, through its length by using drops of wax as adhesive. This rod was placed horizontally with one end subjected to the flame of a burner, as depicted, below:



# Nails closer to point Y begin to fall. If the burner is removed after a short while, nails closer to point X, remained affixed. Which end of the rod is hotter, and why?

- (A) X is hotter as the wax and nails both remained stuck to the rod.
- (B) Y is hotter as the wax melted faster due to the heat of the rod.
- (C) Y is hotter as the gravity acted faster near Y, dropping the nails.
- (D) X is hotter because heat moved from Y and was transferred to X.

#### 47. A car covers a total of 200 kilometres in 4 hours. What is the average speed of the car?

- (A) 40 km/hr
- (C) 100 km/hr

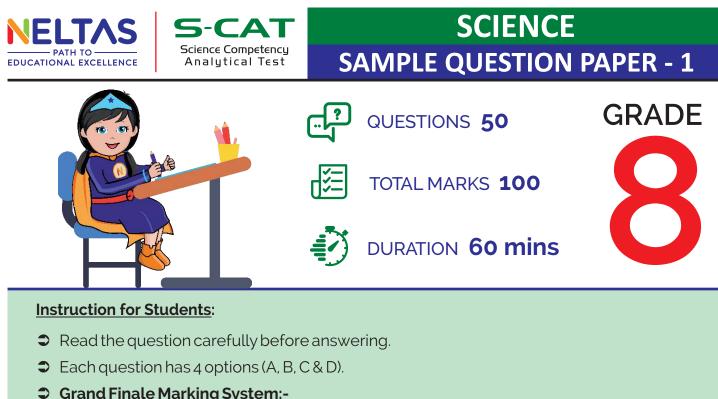
- (B) 800 km/hr
- (D) 50 km/hr
- 48. A student performed an experiment where he placed a magnetic compass near a current-carrying wire. He notices some deflection in the compass needle. What causes the deflection of the needle in the compass?
  - (A) Magnetic effect of the compass on paper
  - (B) Magnetic effect of the electric current
  - (C) Electric effect of the magnetic compass
  - (D) Electric effect of the paper on the compass

49.	The rock of material which attracts is termed as	·
	(A) magnet	(B) magnesia
	(C) magnetic	(D) magnetite
50.	The force of friction can be reduced by the help of _	·•
	(A) ball bearing	(B) lubricants

(C) smooth surfaces

- (B) lubricants
- (D) All of the above

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



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#### 1. The process of loosening and turning the soil is called \_\_\_\_

(A) irrigation

- (B) ploughing
- (C) levelling (D) None of the above

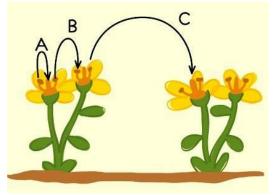
#### 2. In the case of diffusion molecules move from \_

- (A) higher concentration to lower concentration
- (B) lower concentration to higher concentration
- (C) higher concentration to lower concentration through a membrane
- (D) None of the above

## 3. Which of the following diseases is caused by bacteria?

(A) Chickenpox(C) Tuberculosis

- (B) Dengue(D) Polio
- 4. The given image represents three different conditions in which an insect is transferring pollen grains of unisexual and bisexual flowers for facilitating reproduction in them:





NE	LTAS S-CAT	GRADE
	Which of the following condition/conditions wou	Ild lead to the production of new varieties of plants?
	(A) Condition A	(B) Condition B
	(C) Condition C	(D) Condition A and B
5.	Which one of the following hormones converts e	xcess glucose into glycogen?
	(A) Insulin	(B) Glucagon
	(C) Thyroxine	(D) None of the above
6.	In which of the following is binary fission?	
	(A) Amoeba	(B) Humans
	(C) Frog	(D) Hydra
7.	Which of the following are necessary to prepare	nylon?
	(A) Coal and Air	(B) Coal and Water
	(C) Coal, Air, Water	(D) Air and Water
8.	Coal was formed over a long period of time unde decomposition of dead vegetation.	r high temperature and pressure conditions by the
	This process of conversion of dead vegetation int	o coal is known as
	(A) refining	(B) condensation
	(C) carbonization	(D) sublimation
9.	Which of the following pair is INCORRECT?	
	(A) Combustible - Wood	
	(B) Non-combustible - Glass	
	(C) Non-combustible - Charcoal	
	(D) Combustible - Magnesium	
10.	Factors that affect the rate of a given chemical re	action are
	(A) temperature of the reactants	
	(B) concentration of the reactants	
	(C) surface area of the reactants	
	(D) All of the above	
11.	The states of matter are	
	(A) atoms, molecules and ions	
	(B) electrons, protons and neutrons	
	(C) solids, liquids and gases	
	(D) None of the above	
12.	The number of valence electrons present in mag	
	(A) 2	(B) 3
	(C) 4	(D) 5
13.	Which of the following is a carbon compound?	
	(A) Lipids	(B) Protein
	(C) DNA	(D) All of the above
14.	This metal does not react even with steam.	
	(A) Calcium	(B) Iron
	(C) Silver	(D) Sodium
	Science Competency Analytical Test	

#### 15. An oxide is acidic and has a pungent odour. It could be

- (A) carbon dioxide
- (C) carbon monoxide

- (B) sulphur dioxide
- (D) nitrogen dioxide

**16.** Observe the picture shown below:



Jill lifts water from the well by pulling the rope of a pulley system. Which force is applied by her to lift the load?

- (A) Electrical
- (C) Magnetic

- (B) Gravitational
- (D) Muscular
- **17.** The image shows how the word "AMBULANCE" is written in vehicles.



#### What is the reason behind writing the word in the manner?

- (A) To make the vehicle look different from rest on the road.
- (B) The vehicles ahead can read it easily in the rear-view mirror.
- (C) To make the vehicle gain extra speed while travelling.
- (D) People standing in front of the vehicle can read it from distance.

#### 18. Vivan has a solid block. Its mass is 16 g and the volume is 2 cm<sup>3</sup>. What is the density of the block?

- (A) 32 g/cm<sup>3</sup>
  (B) 8 g/cm<sup>3</sup>
  (C) 14 g/cm<sup>3</sup>
  (D) 18 g/cm<sup>3</sup>
- 19. The unit of work is the joule. Which other physical quantity has the same unit?
  - (A) Velocity
  - (C) Power

- (B) Energy
- (D) Force
- 20. An electric current can produce \_\_\_\_\_
  - (A) chemical effect
  - (C) magnetic effect

- (B) heating effect
- (D) All of the above

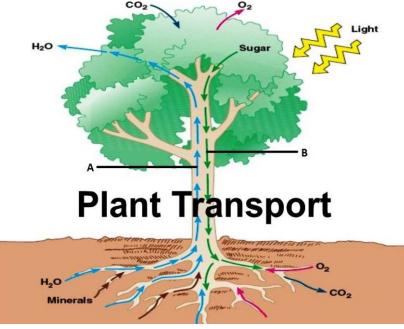
#### 21. What is the management and care of farm animals by humans for profit is known as?

- (A) Poultry farm
- (C) Animal husbandry

- (B) Pisciculture
- (D) None of the above

Science Competency Analytical Test —

22. Arrows in the image are indicating the direction of the movement of substances by two different vascular tissues. Some arrows are labelled as A and some are labelled as B.



Which of the following correctly describes the name and function of the two different vascular tissues?

- (A) Label A Phloem Transports Water, Label B Xylem Transports Food
- (B) Label A Xylem Transports Food, Label B Phloem Transports Water
- (C) Label A Phloem Transports Food, Label B Xylem Transports Water
- (D) Label A Xylem Transports Water, Label B Phloem Transports Food

# 23. Which of the following is a communicable disease?

(A) Diabetes (C) Alzheimer's

- (B) Cancer
- (D) Covid-19

24. Kewal has a mango tree in his garden, which bears sweet mango every year. He wants to add more trees of this variety in its garden. Which life process of the plant will allow him to produce more such plants?

- (A) Transpiration
- (C) Growth

- (B) Reproduction
- (D) Respiration

#### 25. Increased thyroxine production in humans results in \_\_\_\_

(A) dwarfism

- (B) cretinism
- (D) increased metabolism

#### 26. Internal fertilisation takes place \_\_\_\_\_\_.

(C) decreased metabolism

- (A) inside the body of a male
- (B) outside the body of a male
- (C) inside the body of a female
- (D) outside the body of a female

#### 27. PVC is an example of \_

- (A) thermoplastic
- (C) thermosetting plastic (D) a
- (B) plastic(D) acrylic
- 28. Which of the following petroleum components is used as a solvent for dry cleaning?
  - (A) Petrol
  - (C) Diesel

- (B) Kerosene
- (D) Paraffin Wax



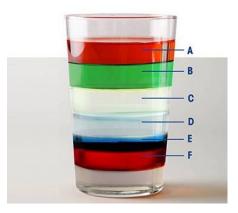
# **NELTAS S-CAT** 29. Ignition temperature is (A) Lowest temperature required to catch fire (B) Highest temperature required to fire (C) Any temperature (D) None of the above **30.** The process in which heat is required to convert a liquid into the vapour state is known as \_\_\_\_\_\_. (A) latent heat of vaporisation (B) evaporation (C) melting (D) condensation 31. The sum of the number of protons and the number of neutrons present in the nucleus of an atom is known as (A) nuclear number (B) electrons number (C) atomic number (D) mass number 32. Carbon can form innumerable compounds because \_\_\_\_\_ (A) it has four electrons in its outermost shell (B) it combines with other elements to form covalent compounds (C) carbon atoms can form long chains (D) All of the above 33. What is a reaction in which a more reactive metal replaces a less reactive metal from its salt solution called? (A) Combination reaction (B) Double displacement reaction (C) Displacement reaction (D) Addition reaction 34. Which acid is present in tamarind? (A) Citric acid (B) Tartaric acid (C) Tannic acid (D) Lactic acid 35. What force will produce a pressure of 50,000 Pa on an area of 0.20 square m? (A) 5,000 N (B) 10,000 N (C) 15,000 N (D) 20,000 N

## 36. Which of the following is glass coated with in order to convert it into a mirror?

- (A) Copper
- (C) Silver

- (B) Aluminium
- (D) Gold

**37.** Observe the given figure carefully:

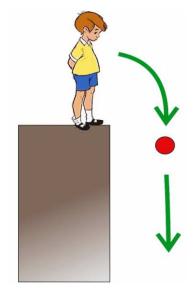




#### The correct order of the liquids from most dense to least dense is

- (A) A, B, C, D
- (C) C, D, E, F

- (B) F, E, D, C
- (D) None of the above
- 38. Which type of energy is possessed by the ball shown in this picture?



(B) Potential

(D) Magnetic

- (A) Kinetic
- (C) Electromagnetic

#### 39. An electrolyte is a \_\_\_\_\_.

- (A) solution
- (B) liquid that conducts current
- (C) metal
- (D) None of the above

40. The characteristics of root-hairs that helps them to absorb water from the soil is \_\_\_\_\_\_.

- (A) their thin membrane
- (B) their large surface area
- (C) that they contain a solution of higher concentration than the surrounding water
- (D) All of the above

41. Amar and Akbar were asked to grow different plants. Amar used the stem of a rose plant and buried it into the soil to grow a new plant. Akbar sowed a gram seed in the soil. After a few weeks, the growth of a rose plant and a gram plant was observed. What mode of reproduction took place in the plants chosen by Amar and Akbar?

- (A) Amar Sexual reproduction; Akbar Asexual reproduction
- (B) Amar Sexual reproduction; Akbar Sexual reproduction
- (C) Amar Asexual reproduction; Akbar Asexual reproduction
- (D) Amar Asexual reproduction; Akbar Sexual reproduction

#### 42. Cortisone hormone is secreted by \_

- (A) Adrenal medulla
- (C) Thyroid gland

- (B) Adrenal cortex
- (D) Pancreas

43. This part of the uterus prevents the mixing of the blood of the foetus with that of the mother.

- (A) Placenta
- (C) Uterus wall

- (B) Umbilical cord
- (D) None of the above

# **NELTAS S-CAT**

#### 44. A piece of paper wrapped around an aluminium pipe does not catch fire easily. Which of the following reasons supports the above information?

- (A) Aluminium is non-combustible
- (B) Paper is non-combustible
- (C) Aluminium pipe does not attain its ignition temperature
- (D) Paper wrapped around the pipe does not attain its ignition temperature

 45. When sulphur reacts with oxygen, the oxide formed is \_\_\_\_\_\_ in nature.

 (A) neutral
 (B) acidic

 (C) basic
 (D) None of the above

 46. The chemical used to neutralize the basic nature of the soil is \_\_\_\_\_\_.

 (A) slaked lime
 (B) quicklime

 (C) baking soda
 (D) organic matter

#### 47. What is the strength of the force is expressed by?

- (A) Magnitude (B) Weight
- (C) Mass (D) None of the above

#### 48. The image below represents the path of light followed as it travels from different sources:

	Normal Normal nitror p B						
	A						
	C	D					
	Which of these images represents the refle	ction of light?					
	(A) B and D	(B) A and B					
	(C) B and C	(D) A and C					
49.	The type of energy stored in food is	•					
	(A) electrical energy	(B) chemical energy					
	(C) heat energy	(D) All of the above					
50.	In an electrolytic cell, the electrode which	is connected to the positive terminal of the battery is called					
	(A) cation	(B) anion					

(A) cation(B) anion(C) cathode(D) anode

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