

**CBSE  
Class VII  
Science Term 1  
Sample Paper - 3**

**Biology**

- Q1. Identify the odd one.  
(a) Ammonia  
(b) Glucose  
(c) Uric acid  
(d) Urea
- Q2. Which one is not a function of blood?  
(a) It transports nutrients to various parts.  
(b) RBC fights against the infection  
(c) It carries oxygenated blood to various parts  
(d) It helps in the formation of clot
- Q3. In mammals, the urea is transported by \_\_\_\_\_ .



- (a) Blood plasma  
(b) Erythrocytes  
(c) Haemoglobin  
(d) Leucocytes
- Q4. In the lab, a student dissected a frog, cut out its heart from the body and kept it in a solution. What did he observe about the heart?  
(a) It continued beating for a long time  
(b) It continued beating for a small time  
(c) It stopped beating immediately  
(d) It stopped beating immediately but resumed after 10 minutes
- Q5. The picture shows a reccoon.  
It is a \_\_\_\_\_ because it feeds on dead and decaying animals.  
(a) Autotroph  
(b) Parasitic animal

- (c) Scavenger
- (d) Omnivore

Q6. Which of the following statements is not relevant about stomach?



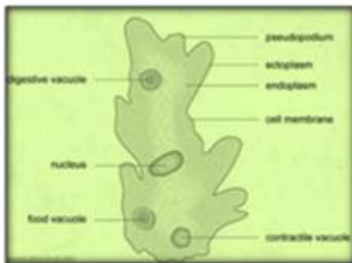
- (a) It is thin walled bag.
- (b) It secretes mucous, hydrochloric acid and digestive juices.
- (c) It opens into small intestine
- (d) It receives food from oesophagus

Q7. Female anopheles, also known as the vector of Malaria is shown in the picture. Due to its bite, Plasmodium is carried from a diseased person to a healthy person. The toxins produced by plasmodium cause the dreaded malaria.

Which one of the following modes of nutrition is followed by the female mosquito?

- (a) Scavenger
- (b) Endoparasitic
- (c) Ectoparasitic
- (d) None of the above

Q8. Which of the following statements is NOT correct for amoeba?



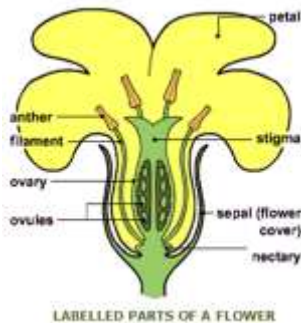
- (a) Microscopic single celled organism
- (b) Found in pond water
- (c) Cannot capture its own food
- (d) Constantly changes its shape

Q9. Which is the odd one out when it comes to respiration?



- (a) Ant
- (b) Grasshopper
- (c) Cockroach
- (d) Earthworm

- Q10. What is the product formed in the cells from conversion of sugar molecules of food during anaerobic respiration?  
 (a) Glucose  
 (b) Oxygen  
 (c) Nitrogen  
 (d) Ethyl alcohol
- Q11. The number of ATP molecules produced during aerobic and anaerobic respiration is \_\_\_\_\_ and \_\_\_\_\_ respectively.  
 (a) 5 and 15  
 (b) 2 and 8  
 (c) 12 and 24  
 (d) 38 and 2
- Q12. Dolphins and whales keep coming to the surface of the water. Why do they do this?  
 (a) They are curious by nature  
 (b) To get sufficient sunlight  
 (c) To breathe  
 (d) To play around
- Q13. The name and functions of each part of the flower is given in the table below. Which of the following is incorrect?



Part	Name	Function
1	Ovary	Protects the ovules
2	Ovule	Contains the pollen grains
3	Petals	Attracts insects
4	Stigma	Receives the pollen grains

- (a) Part 1  
 (b) Part 2  
 (c) Part 4  
 (d) Part 3

Q14. What is happening during the process?

- (a) Self Pollination
- (b) Cross Pollination
- (c) Fertilisation
- (d) Germination

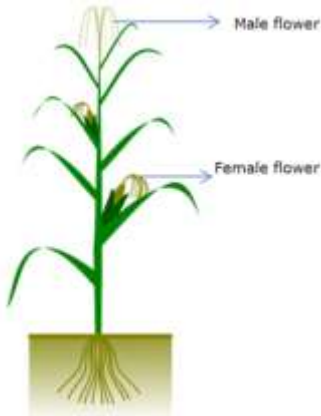
Q15. Study the chart below.



What are M and D?

- (a) M: seeds D:Germination
- (b) M: Flower D:Pollination
- (c) M:Flower D: Fertilisation
- (d) M:Seeds D:fertilisation

Q16. Meg observed a maize plant. What did he infer his observation?



- (a) As the male and female flowers are on the same plant, fertilization is required.
- (b) Not all flowers of the plant can develop into fruit
- (c) All flowers can develop into fruit.
- (d) As the male and female flowers are on the same plant, pollination is not required.

Q17. Where do plants store waste materials?

- (a) Old leaves
- (b) Vacuoles
- (c) Old leaves & Vacuoles
- (d) Neither old leaves nor vacuoles

Q18. From which part of a plant does maximum loss of water through transpiration take place?

- (a) Lenticles
- (b) Cuticle
- (c) Rhizoids
- (d) Stomata

- Q19. Xylem channels of which of the following plants parts possess the lowest water Potential?



- (a) Stem  
(b) Root  
(c) Leaves  
(d) Root hairs
- Q20. In what way is the plant transport system and human transport system similar?
1. Both systems transport food and water.
  2. Both systems have tubes to transport materials.
  3. Both systems transport oxygen and carbon dioxide.
  4. Both systems need an organ to pump the materials in the tubes to different parts.
- (a) 1 and 2  
(b) 1, 2 and 4  
(c) 2, 3 and 4  
(d) 1, 2 and 3

### Chemistry

- Q21. Substance 'x' when reacts with hydrochloric acid produces sodium chloride and water. What is this substance 'x'?
1. Sodium acetate
  2. Sodium sulphate
  3. Sodium hydroxide
  4. Sodium oxide
- (a) 1  
(b) 2  
(c) 3  
(d) 4
- Q22. Which two products are formed in a neutralization reaction?
- (a) Acid and base  
(b) Acid and salt  
(c) Water and base  
(d) Salt and water
- Q23. Which one of the following does not result in the acidic nature of soil?
- (1) Addition of chemical fertilizer
  - (2) Addition of organic matter

- (3) Acid rain  
(4) Addition of slaked lime  
(a) 1  
(b) 2  
(c) 3  
(d) 4
- Q24. The presence of \_\_\_\_\_ makes the lime water soapy  
1. Sodium chloride  
2. Hydrochloric acid  
3. Nitric acid  
4. Calcium hydroxide  
(a) 1  
(b) 2  
(c) 3  
(d) 4
- Q25. What is the chemical name of lime water?  
1. Calcium carbonate  
2. Calcium oxide  
3. Calcium hydroxide  
4. Copper sulphate  
(a) 1  
(b) 2  
(c) 3  
(d) 4
- Q26. In an experiment, a student put baking soda in an empty drink bottle. He added vinegar and then placed a balloon over the neck of the bottle. Very soon, the balloon starting inflating (accompanied with bubbling and foaming in the bottle) Which gas is responsible for this?  
(a) Nitrogen  
(b) Oxygen  
(c) Hydrogen  
(d) Carbon dioxide
- Q27. Which one of the following chemical reactions cannot take place?  
1. Copper sulphate + Iron  $\rightarrow$  Iron sulphate + copper  
2. Lime water + Carbon dioxide  $\rightarrow$  Calcium carbonate + water  
3. Iron sulphate + copper  $\rightarrow$  Copper sulphate + Iron  
4. Magnesium oxide + water  $\rightarrow$  Magnesium hydroxide  
(a) 1  
(b) 2  
(c) 3  
(d) 4

Q28. Which of the following is not a chemical change?

1. Boiling of water
  2. Boiling of egg
  3. Burning of paper
  4. Burning of cloth
- (a) 1  
(b) 2  
(c) 3  
(d) 4

Q29. This potter is an expert at making post and toys from soil. Which type of soil does he use?



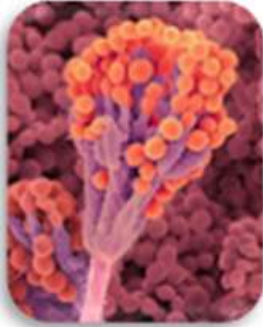
- (a) Silt  
(b) Loamy  
(c) Sandy Soil  
(d) Clayey soil

Q30. A percolation test is done to determine the absorption rate of soil. In which type of soil, percolation rate is the highest?



- (a) Sandy soil  
(b) Clayey soil  
(c) Loamy soil Loamy soil  
(d) Mixture of sand and soil

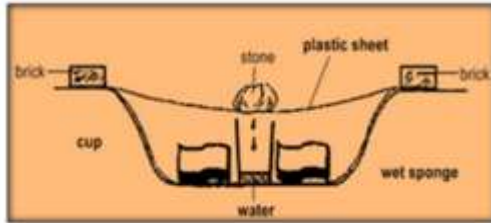
Q31. Fungi and bacteria grow mostly in \_\_\_\_\_ .



Fungi bacteria grow mostly in \_\_\_\_\_ .

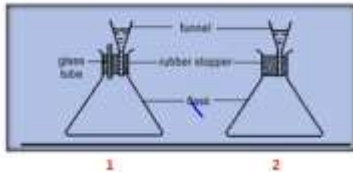
- (a) Sub soil
  - (b) Top soil
  - (c) Bed rock
  - (d) Anywhere
- Q32. Which of the following processes is involved in the formation of soil?
- (a) Weathering
  - (b) Precipitation
  - (c) Evaporation
  - (d) Transpiration
- Q33. The solubility of gas \_\_\_\_\_ (1) \_\_\_\_\_ with the increase in \_\_\_\_\_ (2) \_\_\_\_\_ and \_\_\_\_\_ (3) \_\_\_\_\_ with the increase in \_\_\_\_\_ (4) \_\_\_\_\_.
- (a) 1. Increases 2. Temperature 3. Increases 4. Pressure
  - (b) 1. Decreases 2. Pressure 3. Decreases 4. Temperature
  - (c) 1. Increases 2. Pressure 3. Decreases 4. Temperature
  - (d) 1. Decreases 2. Temperature 3. Decreases 4. Pressure.
- Q34. The density of water is \_\_\_\_\_ and is greatest at \_\_\_\_\_
- 1.  $1 \text{ g/ cm}^3, 4^\circ\text{C}$
  - 2.  $10 \text{ g/ cm}^3, 4^\circ\text{C}$
  - 3.  $1 \text{ g/ cm}^3, 100^\circ\text{C}$
  - 4.  $10 \text{ g/ cm}^3, 0^\circ\text{C}$
- (a) 1
  - (b) 2
  - (c) 3
  - (d) 4
- Q35. Jack's father wanted to demonstrate "water cycle" to him. He dug a hole in their garden as shown. It was observed that some water was collected in the empty cup after a few hours. In this representation of "water cycle", water bodies are represented by \_\_\_\_\_ and clouds by \_\_\_\_\_.





- (a) Cup, Plastic sheet
- (b) Wet sponge, Stone
- (c) Wet sponge, Plastic sheet
- (d) Cup, Brick

Q36. A student set-up two experiments as shown. In both set-ups, the rubber stopper is fitted tightly into the flask.



- (a) Water flowed in set-up (1) but not in set-up (2)
- (b) Water flowed in set-up (2) but not in set-up (1)
- (c) Water flowed in both set-ups
- (d) Water did not flow either of the set-ups

Q37. \_\_\_\_\_ Does not guide birds while migrating?

- (a) Sense of direction
- (b) Flight ability
- (c) Magnetic field of the earth
- (d) Sun and stars

Q38. Webbed feet: Penguin:: \_\_\_\_\_: Frog.

- (a) Long tails
- (b) Sticky pads
- (c) Wide paw
- (d) Curved claws

Q39. Which part of an elephant acts as a coolant in the hot and humid climate?

- (a) Skin
- (b) Trunk
- (c) Tusk
- (d) Long ears

Q40. Polar bears live in the polar regions where the temperature may go down to  $-37^{\circ}\text{C}$ .

- (a) White fur
- (b) Well insulate fat skin

- (c) Wide paws
- (d) None of the above

### Physics

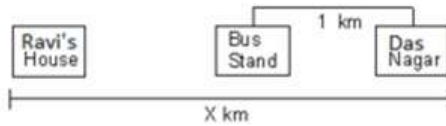
- Q41. Inflate two balloons. Hang them in such a way that they do not touch each other. Rub both the balloons with a woolen cloth and release them. What do you observe?



- (a) The balloons will repel each other
  - (b) The balloons will attract each other
  - (c) There will be no effect
  - (d) None of these
- Q42. What is not advisable to do during a thunderstorm with lightning?
- (a) If in a forest stand under the longer trees
  - (b) If in an open field run towards the trees
  - (c) If in an open field lie down on the ground
  - (d) All the above
- Q43. If you are indoors during an earthquake, what is a good idea to do?
- (a) Take shelter under a table and stay there till shaking stops
  - (b) Stay away from tall and heavy objects that may fall on you
  - (c) If you are in bed, do not get up. Protect your head with a pillow
  - (d) All of the above
- Q44. Winds at the eye of a cyclone are?
- (a) Unstable
  - (b) Frantic
  - (c) Calm
  - (d) Fast
- Q45. The bullet train which can attain a maximum speed of 250 km/hr. How much distance will it cover between 10.00 a.m. and 11.00 a.m. if it was travelling at constant speed of 250 km/hr?
- (a) 60 km
  - (b) 250 m
  - (c) 250 km
  - (d) 25 km

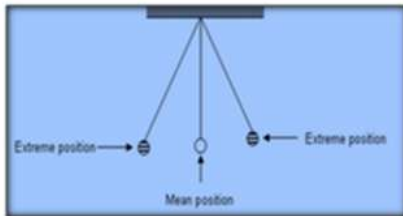
- Q46. The distance between two cities is 120 km.  
A car covers the first 70 km at a speed of 70 km/hr and covers the remaining 50 km at a speed of 50 km/hr.  
How much time did the car take to more from one city to another?  
(a) 60 minutes  
(b) 90 minutes  
(c) 120 minutes  
(d) 180 minutes

- Q47. Ravi takes 20 minutes to reach Das Nagar from his house at the speed of 2 m/s.



How much distance will he cover to reach the bus stand from his house at the same speed and how much time he will take to reach Das Nagar from the bus stand if he moves at the speed of 4 m/s?

- (a) 1000 m, 500 sec  
(b) 1300 m, 250 sec  
(c) 1400 m. 250 sec  
(d) 1200 m, 200 sec
- Q48. When is a pendulum said to have completed one oscillation?



- (a) Movement of bob from one extreme position to another extreme position and than back to first extreme position.  
(b) Movement of bob from one extreme position to mean position.  
(c) Movement of bob to mean position only.  
(d) Movement of bob from on extreme position to another extreme position.
- Q49. One billionth of a second = \_\_\_\_\_ (1)  
One millionth of a second = \_\_\_\_\_ (2)  
(a) 1. Microsecond 2. Nanosecond  
(b) 1. Nanosecond 2. Microsecond  
(c) 1. Microsecond 2. Millisecond  
(d) 1. Millisecond 2. Nanosecond

Q50. Gaps are left between railway tracks. Do you know the reason?



- (a) Gaps give the space to the tracks to expand in summer heat
- (b) Gaps hold the tracks firmly
- (c) Produce rhythmic sound when the train moves
- (d) No specific reason

Q51. The picture shows a toilet paper roll and a steel rod on which it rests. When we touch the steel rod and the paper simultaneously, we feel that the rod is cooler. Why?



- (a) Iron being a good conductor of heat conducts more heat from our body
- (b) Paper being a good conductor conducts more heat from our body
- (c) More heat flows from the iron to our body
- (d) More heat flows from the paper to our body

Q52. Which is the odd one out when it comes to heat?

- (a) Brass
- (b) Wood
- (c) Plastic
- (d) Wool

Q53. Identify where the heat is being transferred by conduction, by convection and b radiation.



- (a) 1. Convection 2. Radiation 3. Conduction
- (b) 1. Conduction 2. Convection 3. Radiation
- (c) 1. Radiation 2. Convection 3. Conduction
- (d) 1. Conduction 2. Radiation 3. Convection

Q54. A wooden spoon is dipped in a cup of ice cream. It's other end \_\_\_\_\_



- (a) Becomes cold by the process of conduction
- (b) Becomes cold by the process of convection
- (c) Becomes cold by the process of radiation
- (d) Does not become cold

Q55. Which is the odd circuit out?



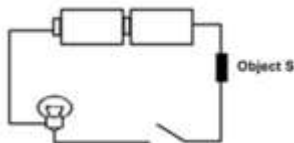
- (a) 1
- (b) 2
- (c) 3
- (d) There is no odd circuit out

Q56. Will the bulb glow in the circuit shown?



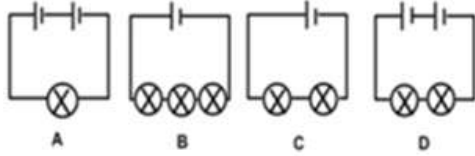
- (a) Yes
- (b) No

Q57. The figure shows an open circuit. Even after the circuit is closed, the light bulb does not light up at all.



- 1. The light bulb has fused.
  - 2. Object S is a plastic ruler.
  - 3. The batteries are too strong.
  - 4. Object S is an insulator of electricity.
  - 5. The arrangement of batteries is incorrect.
- (a) 1 and 2 and 3
  - (b) 1 only
  - (c) 1 and 3 and 5
  - (d) 1 and 2 and 4

- Q58. Study the 4 different circuit diagram below. The bulbs and the batteries in the 4 circuits are new and functioning properly.  
Which one of the following correctly shows the correct arrangement of the brightness of the bulbs from the brightest to the dimmest?



- (a)  $A > D > C > B$   
(b)  $A > C > B > D$   
(c)  $B > C > D > A$   
(d)  $D > A > C > B$
- Q59. Magnesium burns with a brilliant \_\_\_ light.  
(a) Black  
(b) White  
(c) Red  
(d) Yellow
- Q60. The basic unit of time is \_\_\_\_.  
(a) A second  
(b) An hour  
(c) A minute  
(d) A light year