

Class: 7
Subject: Science
Topic: OASK1507SA201
No. of Questions: 31

Time: 2 1/2Hrs.

M.M. 60

General Instructions:

1. All questions are compulsory.
2. There is no overall choice. However, internal choice has been given for five marks questions
3. Questions number 1 to 3 in Section A are one marks questions.
4. Questions number 4 to 10 in Section A are two mark questions.
5. Question numbers 11 to 15 in Section A are three mark questions.
6. Questions number 16 to 18 in Section A are five mark questions
7. Questions numbers 19 to 31 in Section B are multiple choice questions.

SECTION – A

Q1. Which soil is richest in humus?

Sol. Loamny

Q2. A car travels 80 km in two hours. Calculate its speed.

Sol. 40 km/h.

Q3. Give the scientific term for the breaking up of rocks to form soil.

Sol. Weathering of rocks

Q4. Name the breathing organs in

- (a) Cockroach
- (b) Frog
- (c) Plant
- (d) Earthworm

Sol. (a) Cockroach – tracheal tubes and spiracles

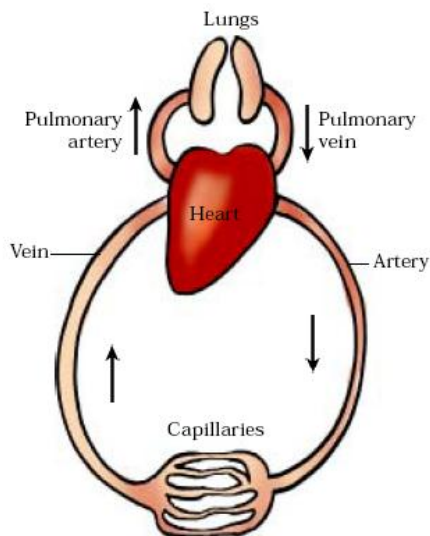
(b) Frog – lungs and skin

(c) Plants = Stomata

(d) Earthworm – moist skin

Q5. Draw schematic diagram of circulation of blood

Sol. Schematic diagram of circulation



Q6. Give one function each of W.B.C and Platelets

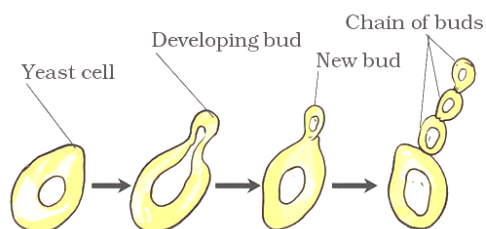
Sol. WBC – They help us fight against diseases
Platelets – They help in clotting the blood

Q7. List two differences between 'Sexual' and 'asexual' reproduction

Sol. Sexual Reproduction - Seeds formed, reproductive parts are involved.
Asexual reproduction - seeds not formed, vegetative parts are involved

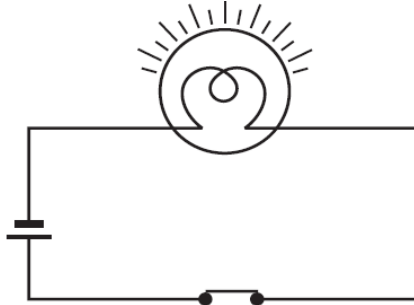
Q8. Draw the different steps in budding of yeast

Sol. The different steps in budding of yeast



Q9. Draw a closed electric circuit using symbols of electric components.

Sol. A closed electric circuit using symbols of electric components.



Q10. Name the kind of mirror used

- (a) As head light of cars
- (b) By dentists

Sol. Name the kind of mirror used

- (a) Head lights of car – concave mirror
- (b) By Dentists – Concave mirror

Q11. Complete this table with words maximum, least, medium

Sl.NO.	Characteristics	Sandy soil	Loamy soil	Clayed soil
1	Particle Size			
2	Absorption of water			

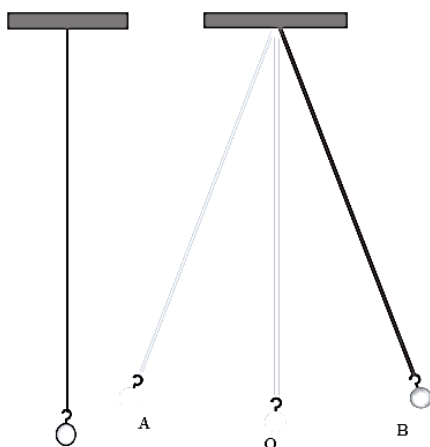
Sol. Complete this table with words Maximum, Least, Medium.

Sl. No.	Characteristics	Sandy soil	Loamy soil	Clayey soil
1	Particle size	Maximum	Medium	Least
2	Absorption of water	Least	Medium	Maximum

Q12. (a) A simple pendulum takes 32 seconds to complete 20 oscillations. What is the time period of pendulum?

(b) Draw a labeled diagram of simple pendulum.

- Sol. (a) The time period of pendulum ? $32 / 20 = 1.6$ s
(b)



(a) A simple pendulum

(b) Different positions of the bob of an oscillating simple pendulum

- Q13. Write 3 ways in which you can save water.

- Sol. (a) Reuse water used to wash vegetables in kitchen garden
(b) Water used for rising clothes can be used in toilets
(c) Use bucket of water instead of shower to bath or any other method

- Q14. List any six products we get from forests.

- Sol. Some of the forest products are wood, gum, sealing wax, medicines, paper, oils etc.

- Q15. Choose the correct words from the help box related to waste water treatment process and complete the table given below.

Sludge, clarified, bar screens, aerobic, grit and san, decreased

- (a) Waste water is passed through (1) . _____ to remove large objects. Then it goes into a (2). _____ removal tank where speed of incoming water is (3). _____. The water is then allowed to settle at the bottom are removed by a scrapper. This is called (4). _____. The skimmer removes floatable solids. The water so obtained is _____ water. Air is pumped to help (6). _____ bacteria to grow which consume waste.

S.NO.	WORD
1.	
2.	
3.	
4.	
5.	
6.	

- Sol. (a) Bar screens
(a) Grit and sand
(b) Decreased
(c) Sludge
(d) Clarified
(e) Aerobic.

- Q16. (a) Write three differences between aerobic and anaerobic respiration.
(b) Why do we get muscle cramps? How can you get relief from them?

- Sol. (a) Write any three differences between aerobic and anaerobic respiration.

S. No.	Aerobic respiration	Anaerobic respiration
1	Occurs in presence of oxygen	Occurs in absence of oxygen
2	Complete breakdown of glucose into CO_2 and H_2O occurs	Glucose is partially broken down into alcohol and CO_2 .
3	More energy released	Less energy released

- (b) When oxygen availability is less anaerobic respiration occurs in muscles cells and lactic acid is produced which results in muscle cramps. We can get relief by a massage or by a hot water bath

Or

- (a) What is breathing rate?
(b) Arrange these activities from lowest breathing rate to highest?
Jumping, reading, running, sleeping
(c) Write two differences between exhaled and inhaled air

- Sol. (a) The number of times a person breathes in a minute is termed as breathing rate. It increases during an exercise.
(b) Sleeping reading jumping, running
(c) Exhaled air – (i) The air given out during breathing (ii) it is rich in CO_2
Inhaled air – (i) The air taken in during breathing (ii) It is rich in O_2

- Q17. (a) Define heating effect of current.
(b) Write two uses of heating effect.
(c) What are electric fuses? How are they useful?

- Sol. (a) The wire gets hot when electric current passes through it. This is called heating effect of electric current.
(b) Electric heater, electric room heater, geyser or any other
(c) A fuse is an electric device which prevents damage to electrical circuits and possible fires. They have a fuse wire which melts and breaks when excess current flows through the circuit thus breaking the circuit the help in saving electric appliances and possible fires.

Or

- (a) Define magnetic effect of current
(b) Who discovered the magnetic effect of electric current?
(c) What are electro magnets? Write two uses of electro magnets?

- Sol. (a) When electric current passes through a wire, it behaves like a magnet. This is called magnetic effect of electric current'
(b) Hans Christian Oersted discovered magnetic effect of electric current.
(c) Coils which behave as a magnet when current passes through them are called electro magnets, two uses of electromagnets are in electric bells, lifting heavy loads, separating magnetic material from junk or any other use.

- Q18. (a) What do you mean by reflection of light?
(b) What are four characteristics of image formed by a plane mirror?
(c) Write one difference between real and virtual image.

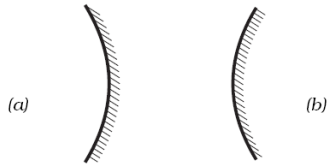
- Sol. (a) The change in direction of light when it falls on a mirror or other surfaces is called reflection of light.
(b) The image formed by a plane mirror is erect.
1. It is of the same size as an object
2. It shows lateral inversion

3. It is at a same distance from the mirror as the object
 4. It is virtual
- (c) Real images can be obtained on a screen whereas virtual images cannot be obtained on a screen.

Or

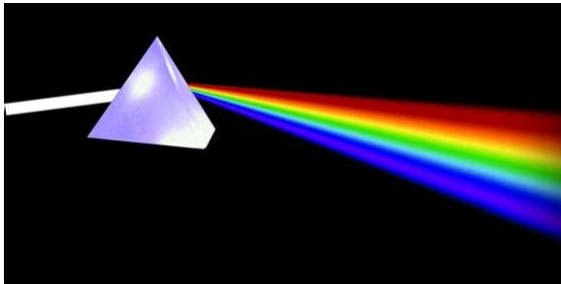
- (a) What are the two types of mirrors? Draw them.
- (b) Which lens is used as a magnifying glass.
- (c) Draw what happens when sunlight falls on a prism.

Sol. (a) The two types of mirrors are concave mirror and convex mirror



Concave and convex mirror

- (b) Convex lens
- (c) It splits into seven colours VIBGYOR



SECTION – B

- Q19. Which of the following prevent soil erosion?
- (a) Animals
 - (b) Plants
 - (c) Water
 - (d) Wind

Sol. (b)

- Q20. The mountaineers carry oxygen with them because
- (a) At an altitude of more than 5 km there is no air.
 - (b) The amount of air available to a person is less than available on ground
 - (c) The temperature of air is higher than that on the ground
 - (d) The pressure of air is higher than that on the ground.

Sol. (b)

- Q21. The thinnest blood vessel is
- (a) Vein
 - (b) Artery
 - (c) Capillary
 - (d) Platelet

Sol. (c)

- Q22. A plant that reproduces from its leaf is
- (a) Rose
 - (b) Carrot
 - (c) Bryophyllum
 - (d) Papaya

Sol. (c)

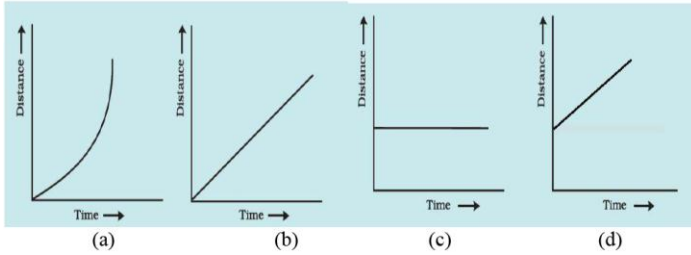
- Q23. An example of a winged seed is
- (a) Oak
 - (b) Drumstick
 - (c) Castor
 - (d) Xanthium

Sol. (b)

- Q24. The SI unit of speed is
- (a) Km/h;
 - (b) Km/min
 - (c) mm/s
 - (d) cm/s

Sol. (a)

Q25. Which graphs represent a body with no motion?



Sol. (c)

Q26. In the symbol of a cell the longer lines represents

- (a) positive terminal
- (b) negative terminal
- (c) both depending on circuit
- (d) None of the above

Sol. (a)

Q27. Side view mirrors are

- (a) Concave mirrors
- (b) Convex mirrors
- (c) Concave or convex
- (d) Plane mirrors

Sol. (b)

Q28. Which one of the following is not responsible for water shortage

- (a) Rapid growth of industry
- (b) Increasing population
- (c) Heavy rainfall
- (d) Mismanagement of water resources

Sol. (c)

Q29. World water day is on

- (a) 22nd March
- (b) 22nd May
- (c) 22 February
- (d) 22nd June

Sol. (a)

Q30. Micro – organisms act upon the dead plants to produce

- (a) Sand
- (b) Mushrooms
- (c) Humus
- (d) Kerosene

Sol. (d)

Q31. Study the following statement about ozone

- (I) It is essential for breathing of living organisms
- (II) It is used to disinfect water
- (III) It absorbs ultra violet rays
- (IV) It's proportion in air is about 3%

Which of these statements are correct?

- (a) (I), (II) and (III)
- (b) (II) and (III)
- (c) (I) and (IV)
- (d) All the above

Sol. (b)