

**KENDRIYA VIDYALAYA SANGATHAN
HYDERABAD REGION
COMMON SUMMATIVE ASSESSMENT – II**

Class: VII
Subject: SCIENCE

Marks: 60
Duration: 2 ½ hrs.

General Instructions:

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

SECTION A

1. Which soil is richest in humus?
2. A car travels 80 km in two hours. Calculate its speed.
3. Give the scientific term for the breaking up of rocks to form soil.
4. Name the breathing organs in
 - a) cockroach
 - b) frog
 - c) plant
 - d) earthworm
5. Draw schematic diagram of circulation of blood
6. Give one function each of W.B.C and Platelets
7. List two differences between 'sexual' and 'asexual' reproduction
8. Draw the different steps in budding of yeast
9. Draw a closed electric circuit using symbols of electric components.
10. Name the kind of mirror used
 - a) as head light of cars
 - b) by dentists
11. Complete this table with words maximum, least, medium

So. No	Characteristics	sandy soil	loamy soil	clayey soil
1	Particle size			
2	Absorption of water			

12. a) A Simple pendulum takes 32 seconds to complete 20 oscillations.
What is the time period of pendulum?
b) Draw a labelled diagram of simple pendulum.
13. Write 3 ways in which you can save water.
14. List any six products we get from forests.

15. 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 sand, 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 in large tank and solids which 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.	

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

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

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

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?

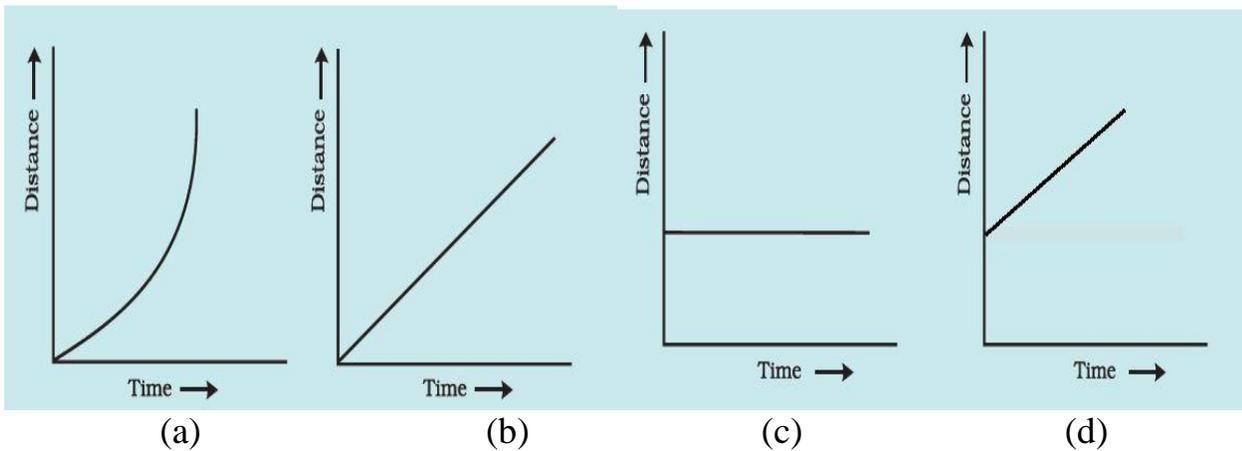
18: a) What do you mean by reflection of light?
b) What are four characteristics of image formed by a plane mirror?
c) Write one difference between real and virtual image.

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

SECTION B

19. Which of the following prevent soil erosion?
a) Animals b) plants c) water d) wind
20. The mountaineers carry oxygen with them because
a) At an altitude of more than 5km 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
21. The thinnest blood vessel is
a) Vein b) artery c) capillary d) platelet
22. A plant that reproduces from its leaf is
a) Rose b) Carrot c) Bryophyllum d) Papaya
23. An example of a winged seed is
a) oak b) drumstick c) castor d) Xanthium
24. The SI unit of speed is
a) km/h; b) km/min c) mm/s d) cm/s
25. Which graph represents a body with no motion?



26. 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

27. Side view mirrors are
- a) concave mirrors
 - b) convex mirrors
 - c) concave or convex
 - d) plane mirrors
28. 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
29. World water day is on
- a) 22nd March
 - b) 22nd May
 - c) 22 February
 - d) 22nd June
30. Micro-organisms act upon the dead plants to produce
- a) sand
 - b) mushrooms
 - c) humus
 - d) wood
31. Study the following statements 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

KENDRIYA VIDYALAYA SANGATHAN
HYDERABAD REGION
SCORING KEY FOR COMMON SUMMATIVE ASSESSMENT – II

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Subject :SCIENCE

SECTION A

1. 1MARK Loamy
2. 1MARK 40km/h.
3. 1MARK weathering of rocks
4. 2MARKS a; cockroach-tracheal tubes and spiracles b; frog-lungs and skin c; plants= stomata d; earthworm-moist skin
5. 2MARKS Refer fig no11.3 on page123 of textbook
6. 2MARKS
WBC –They help us fight against diseases
Platelets_ They help in clotting the blood
7. 2MARKS

S.NO	ASEXUAL REPRODUCTION	SEXUAL REPRUDUCTION
1	seeds not formed	seeds formed
2	vegetative parts are involved	reproductive parts are involved

8. 2MARKS Refer fig no12.5 on page 135
9. 2MARKSfig 14.8 on page163 of text book
- 10.2MARKS Name the kind of mirror used
1: head lights of car- concave mirror
2: by Dentists-concave mirror

11.3MARKS 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

12. 3MARKS .

- The time period of pendulum? $32/20=1.6$ s
b: Refer fig no13.4 on page 146

13. 3MARKS

1. reuse water used to wash vegetables in kitchen garden
2. water used for rinsing clothes can be used in toilets
3. use bucket of water instead of shower to bath or any other method

14. 3MARKS

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

15. 3 MARKS:

1. bar screens
2. grit and sand
3. Decreased.
4. Sludge.
5. Clarified.
6. aerobic .

16. a) 3MARKS 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 ₂ O occurs	Glucose is partially broken down into alcohol and CO ₂
3	More energy released	Less energy released

b) 2MARKS when oxygen availability is less anaerobic respiration occurs in muscle 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) 2marks the number of times a person breathes in a minute is termed as breathing rate .it increases during a exercise

b) 2marks sleeping reading jumping, running

c) 1mark (anyone)

S.NO	Exhaled air	Inhaled air
1	The air given out during breathing	The air taken in during breathing
2	It is rich in CO ₂	It is rich in O ₂

17. a) 2marks

The wire gets hot when electric current passes through it. This is called heating effect of electric current

b) 1mark

electric heater, electric room heater, geyser or any other

c)2marks

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 and help in saving electric appliances and possible fires

or

a)2marks

When electric current passes through a wire, it behaves like a magnet. This is called magnetic effect of electric current'

b)1mark Hans Christian Oersted discovered magnetic effect of electric current

c)2marks

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.

18. a) 1mark

The change in direction of light when it falls on a mirror or other surfaces is called reflection of light

b) 2marks what are four characteristics of image formed by plane mirror?

The image formed by a plane mirror is erect

It is of the same size as object

It shows lateral inversion

It is at a same distance from the mirror as the object

It is virtual (any four)

c)2marks.

1 .Real images can be obtained on a screen whereas virtual images cannot be obtained on a screen

or

a)2marks:

The two types of mirrors are concave mirror and convex mirror diagram on page 179 of text book

b) 1markconvex lens

c)2marks draw what happens when sunlight falls on a prism diagram on page186 it splits into seven colours VIBGYOR

SECTION B

MCQ (1M EACH)

19. b) plants,
20. b) The amount of air available to a person is less than available on ground
21. c) capillaries.
22. c) Bryophyllum
23. b) drumstick
24. a) km/h
25. c)
26. a) positive terminal
27. b) convex
28. c) heavy rainfall
29. a) 22nd March
30. d) kerosene
31. b) II and III