

JSUNIL TUTORIAL
PERIODIC TEST - 3, 2018-19

CLASS - X
SCIENCE

S

Time : 3 Hours]

[Max. Marks : 80

General Instructions :

- (i) Answer all the questions.
- (ii) Marks for each question in indicated against it.

Crassosix
Crassosopee

Aldehyde
Alcohol

SECTION - A

- 1. Write the name and formula of the second member of the carbon compounds having functional group - OH. 1
- 2. State the function of iris in human eye. 1
- 3. What is heredity ? 1
- 4. What is monohybrid cross ? Write the monohybrid ratio. 2
- 5. Write the S.I. unit of followings : $\frac{1}{2} \times 4 = 2$
 - (a) Resistance
 - (b) Resistivity
 - (c) Power of lens
 - (d) Potential difference
- 6. Write the chemical name and formula of bleaching powder. How it is prepared ? Write the chemical equation for its preparation. 2
- 7. Define chlor-alkali process. Write its chemical equation. Which gas is evolved at cathode and anode ? 2
- 8. Write the laws of refraction. 2
- 9. Write the motor rule. 2
- 10. Define food chain. In the following food chain 20,000 J of energy was available to the plants. How much energy would be available to the man in this food chain ? 2
plant → sheep → Man
- 11. What are homologous organs ? Give examples. 2

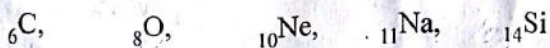
20000 → 2000 → 200J

P.T.O.

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12. You being an environmentalist are interested in contributing towards the conservation of natural resources. List four activities that you can do on your own. 2

13. Choose the following :



- (i) Element that should be in the same period.
- (ii) Elements that should be in the same group.

State reason for your selection in each case.

14. Draw the electron dot structure of (a) ethene (b) Ethyne.

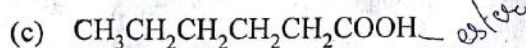
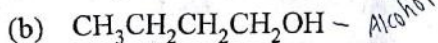
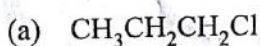
15. A convex lens can form a magnified erect image as well as magnified inverted image of an object in front of it. Draw ray diagrams to justify the above statement. 3

16. State Ohm's law. Two resistors of $6\ \Omega$ and $3\ \Omega$ are connected in parallel. Find the equivalent resistance of the combination thus formed? 3

17. A convex lens is of focal length 30 cm. Calculate at what distance should the object be placed from the lens so that it forms an image at 60 cm on the other side of the lens. Find the magnification produced by the lens in this case. 3

18. Draw a well labelled diagram of human female reproductive system and name the part where (a) eggs develop (b) fertilisation takes place (c) fertilised egg gets implanted. 3

19. Write the IUPAC name of followings :

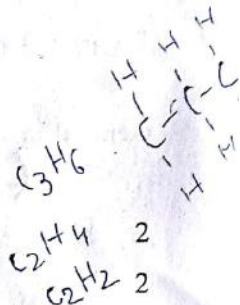


20. Define the following terms :

- (a) Alloy
- (b) Roasting
- (c) Ore

21. An organic compound 'A' of molecular formula $\text{C}_2\text{H}_4\text{O}_2$ is widely used as preservatives in pickles. This compound reacts with ethanol to give a sweet smelling compound 'B'.

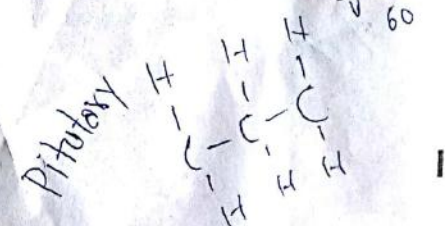
- (i) Identify the compound 'A'.
- (ii) Write the chemical equation for the reaction involved.



$$\frac{1}{F} = \frac{1}{30}$$

$$m_2 = \frac{h_1}{h_2}$$

$$\frac{1}{v} = \frac{1}{60} + \frac{1}{u}$$



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(iii) Name the reaction.

(iv) Name the gas produced when compound 'A' reacts with washing soda. Write the chemical equation for the reaction. 5

22. Draw a well labelled diagram of human eye. Define (a) Power of accommodation (b) Far point. 5

OR

What is myopia ? Write its causes and correction with suitable diagrams.

23. Define the following terms : 3

(a) Biomagnification

(b) Ecosystem

(c) Fossil

24. Draw a well labelled diagram of L.S. of a carpel showing structure of ovule & briefly explain double fertilisation. 5

OR

Draw a well labelled diagram of human brain. Define reflex action.

25. What is calcination ? 1

26. Distinguish between aerobic and anaerobic respiration. 2

OR

Distinguish between artery and vein.

SECTION - B (PBQ)

27. Kamla was playing in the garden. She was stung by a bee. Her mother immediately applied a coating of toothpaste on the affected area.

(a) What was bee sting contain ?

(b) Why did her mother applied toothpaste on the affected area ? 2

28. A student put a few drops of an unknown solution on the pH strip, the colour of pH strip changed to violet.

(a) What is the solution ?

(b) Explain the nature of the solution. 2

P.T.O.

$$m = \frac{-v}{-u}$$

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29. How ammeter and voltmeter are connected in a circuit ? 2
30. Mention the shape of a guard cell and write its constituents. 2
31. You are given two types of lens. How will you recognise, which one is concave and which is convex ? 2
32. Draw diagram to show binary fission in amoeba. 2

OR

Draw diagram to show budding in Hydra. 2

33. What are the materials required while performing the experiment "to trace the path of rays of light through glass prism". 2
34. Define pH. State its maximum and minimum values. 2

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