

NKL

## THIRD REVISION TEST - 2023

10 Std

SCIENCE

Reg  
No.

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Time: 3.00 Hrs

Marks : 75

## Namakkal district PART - I

I Choose the best answer :

12 X 1 = 12

- Impulse is equals to .....  
 a) rate of change of momentum    b) rate of force and time    c)  change of momentum  
 d) rate of change of mass
- The eye defect 'Presbyopia' can be corrected by  
 a) Convex lens    b) Cancave lens    c) Convex mirror    d)  bi focal lens
- Who discovered natural radioactivity?  
 a) Roentgen    b) Curie    c)  Becquerel    d) Neils Bohr
- The process of coating the surface of metal with a thin layer of zinc is called .....  
 a) Painting    b) Thinning    c)  galvanization    d) electroplating
- Photolysis is a decomposition reaction caused by .....  
 a) heat    b) electricity    c)  light    d) Mechanical energy
- Rectified spirit is an aqueous solution which contains about ..... of ethanol.  
 a) 95.5%    b) 75.5%    c) 55.5%    d) 45.5%
- Nerve cells do not possess  
 a) neuritemma    b)  Sarcolemma    c) ascon    d) dendrites
- Which one of the following hormones is naturally not found in plants :  
 a) 2, 4 - D    b) GA 3    c) Gibberellin    d) IAA
- The plant which propagates with the help of its leaves is .....  
 a) Onion    b) Neem    c) Ginger    d)  Bryophyllum
- The ..... units farm the backbone of the DNA .  
 a) 5 carbon sugar    b) phosphate    c) nitrogenous bases    d)  sugar phosphate
- A renewable source of energy is .....  
 a)  Petroleum    b) coal    c) nuclear fuel    d) trees

## PART - II

II Answer any 7 questions (Question No.22 is compulsory)

7 X 2 = 14

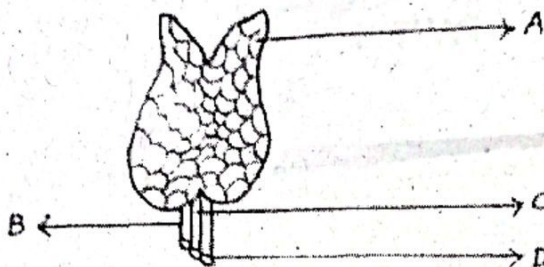
- What is refractive index?
- Define one roentgen
- The aguatic animals live more in cold region. why?
- Match the following :

Reactionq	Type	
i) $\text{NH}_4\text{OH}_{(aq)} + \text{CH}_3\text{COOH}_{(aq)} \rightarrow$ $\text{CH}_3\text{COONH}_{4(aq)} + \text{H}_2\text{O}_{(L)}$	Single displacement	2
ii) $\text{Zn}_{(S)} + \text{CuSO}_{4(aq)} \rightarrow$ $\text{ZnSO}_{4(aq)} + \text{Cu}_{(S)}$	Combustion	4
iii) $\text{ZnCO}_{3(s)} \rightarrow \text{ZnSO}_{4(aq)} + \text{CO}_{2(g)}$	Neutralisation	1
iv) $\text{C}_2\text{H}_{4(g)} + 4\text{O}_{2(g)} \rightarrow 2\text{CO}_{2(g)} +$ $2\text{H}_2\text{O}_{(g)} + \text{Heat}$	Thermal decomposition	3

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17. Name the simplest ketone and give its structural formula
18. why are the rings of cartilages found in trachea of rabbit?
19. Define reflex arc.
20. Identify the parts of A,B,C and D.



21. Distinguish between undifferentiated cells and differentiated cells.
22. Are temperature in the Rajasthan desert can reach  $46^{\circ}\text{C}$  what is the velocity of sound in air at that temperature? ( $V_0 = 331\text{ ms}^{-1}$ )

### PART - III

III Answer any 7 questions. (Q.No.28 is compulsory)

5X4 = 28

23. Define inertia. Give its classification
24. Differentiate convex lens and concave lens.
25. i) What is stellar energy?  
ii) Give any two uses of radio isotopes in the field of agriculture?
26. i) state two conditions necessary for rusting of iron.  
ii) Classify the following substances into deliquescent, hygroscopic Conc.  
a) Sulphuric acid. b) Copper sulphate penta hydrate, c) silica gel-d) Calcium-chloride e) Gypsum salt.
27. Differentiate Soaps and detergents
28.  $\text{N}_2 + 3\text{H}_2 \rightarrow 2\text{NH}_3$   
(The atomic mass of nitrogen is 14, and that of hydrogen is 1)  
1 mole of nitrogen (.....28.....g) +  
3 mole of hydrogen (...6.....g) →  
2 mole of ammonia (...36.....g)
29. What is photosynthesis and where in a cell does it occur?
30. How are arteries and veins structurally different from one another?
31. Why did Mendal select pea plant for his experiments?
32. What precautions can be taken for preventing heart diseases?

### PART - IV

IV Answer all the questions.

7 X 3 = 21

33. State the universal law of gravitation and derive its mathematical expression (OR)  
a) What do you understand by the term 'Ultrasonic vibration'?  
b) State three uses of ultrasonic vibrations  
c) Name three animals which can hear ultrasonic vibrations
34. How does PH play an important role in everyday life? (OR)  
What is called homologous series? Give any three of its characteristics?
35. Explain the structure of a chromosome (OR)  
How does rainwater harvesting structures recharge ground water?