

## REVISION TEST - 2020

STANDARD - X

Reg. No. 

--	--	--	--	--	--

SCIENCE

Marks : 75

Time: 3.00 Hrs.

PART - I

12 X 1 = 12

Answer all the questions:

Choose the most suitable answer and write the code with the corresponding answer.

1. If  $V_B$ ,  $V_G$ ,  $V_R$  be the velocity of blue, green and red light respectively in a glass prism, then which of the following statement gives the correct relation?  
 a)  $V_B = V_G = V_R$       b)  $V_B > V_G > V_R$       c)  $V_B < V_G < V_R$       d)  $V_B < V_G > V_R$
2. The unit of specific resistance is  
 a) ampere      b) volt      c) ohm meter      d) ohm
3. Rapid back and forth motion of a particle about its mean position is called  
 a) Longitudinal      b) Transverse      c) Rectilinear      d) All the above
4. The sum of the numbers of protons and neutrons of an atom is called  
 a) Atomic number      b) Mass number      c) Neutron number      d) Atomicity
5. Ethanoic acid turns \_\_\_\_\_ litmus to \_\_\_\_\_  
 a) Red, Blue      b) Red, Yellow      c) Blue, Red      d) Blue, Yellow
6. Normal blood pressure is \_\_\_\_\_ mm Hg.  
 a) 120/80      b) 130/80      c) 140/80      d) 120/90
7. Identify the exocrine gland.  
 a) Pituitary gland      b) Adrenal gland      c) Salivary gland      d) Thyroid gland.
8. \_\_\_\_\_ is ATP factory of the cells.  
 a) Ribosome      b) Lysosome      c) Mitochondria      d) Cell wall
9. The theory of natural selection for evolution was proposed by  
 a) Khorana      b) Charles Darwin      c) Ronald Ross      d) Hugo de Vries
10. Metastasis is associated with  
 a) Malignant tumour      b) Benign tumour      c) Both (a) and (b)      d) Crown gall tumour
11. The  $P^H$  of a solution is 3. Its  $[OH^-]$  concentration is  
 a)  $1 \times 10^{-3} M$       b) 3 M      c)  $1 \times 10^{-11} M$       d) 11 M
12. Which is used to build scripts?  
 a) Script area      b) Block palette      c) Stage      d) Sprite

## PART - II

Note : Answer any 7 questions. Question No. 22 is compulsory:

7 X 2 = 14

13. State Newton's second law.
14. What is co-efficient of apparent expansion?
15. Why are elements of group 18 unreactive?
16. Define Hydrated salt.
17. What is diastema?
18. Differentiate medullated and non-medullated nerve fibre.

Rev. - X (Science)

19. How does binary fission differ from multiple fission?
20. What are allozymes?
21. What are the agents of soil erosion?
22. A sound wave has a frequency of 200 Hz and a speed of  $400\text{ms}^{-1}$  in a medium. Find the wavelength of the sound wave.

PART - III

Note : Answer any 7 questions. Question No. 32 is compulsory:

7 X 4 = 28

23. Differentiate mass and weight.
24. Explain the principle of an atom bomb.
25. a) What happens when  $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$  is heated? Write the appropriate equation.  
b) Define solubility.
26. Explain the types of double displacement reactions with example.
27. a) Draw and label the structure of oxysomes.



- b) What is respiratory quotient?
28. What are the conditions which occur due to lack of ADH and insulin? How are the conditions different from one another?
29. Describe the structure of an ovum.
30. How do you differentiate homologous organs from analogous organs?
31. Biofortification may help in removing hidden hunger. How?
32. Calculate the % of each element in calcium carbonate. (Atomic mass: C-12, O-16, Ca-40)

PART - IV

Note : Answer to all questions. Draw diagrams wherever necessary:

3 X 7 = 21

33. (a) With the help of a circuit diagram derive the formula for the resultant resistance of three resistances connected (i) in series (ii) in parallel. (OR)
- (b) (i) Define critical mass.  
(ii) What is a nuclear reactor? Explain its essential parts with their functions.
34. (a) (i) 3.5 litre of ethanol is present in 15 litres of aqueous solution of ethanol. Calculate volume percent of ethanol solution.  
(ii) Give the salient features of "Modern atomic theory" (OR)
- (b) (i) How is ethanoic acid prepared from ethanol? Write the chemical equation.  
(ii) What is called homologous series? Write its characteristics.
35. (a) (i) How do plants absorb water? Explain. (OR)
- (b) (i) Classify neurons based on its structures.  
(ii) Differentiate between Type-I and Type-II diabetes mellitus.