

**10<sup>th</sup> STD****2nd REVISION EXAM - 2019-20**

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Time : 3.00 hrs.

**SCIENCE**

Marks : 75

- Instructions:
1. Check the question paper for fairness of printing. If there is any lack of fairness inform the hall supervisor immediately.
  2. Use blue or black ink to write and underline. Use pencil to draw diagram.
  3. This question paper carries four parts.

**PART - I****Note: i) Answer all the questions:****12X1=12**

ii) Choose the most suitable answer and write the code with corresponding answer:

1. Force is a vector quantity that has
  - a) Magnitude only
  - b) Direction only
  - c) Both magnitude and direction
  - d) None of there
2. S I unit of power is
  - a) Watt
  - b) Joule
  - c) Ampere
  - d) Volt
3. Fuse wire is made up of
  - a) Alloy of lead and tin
  - b) Alloy of lead and copper
  - c) Alloy of tin and copper
  - d) None of the above
4. 1 mole of any substance contains \_\_\_\_\_ molecules.
  - a)  $6.023 \times 10^{23}$
  - b)  $6.023 \times 10^{-23}$
  - c)  $3.0115 \times 10^{23}$
  - d)  $12.046 \times 10^{23}$
5. The process of coating the surface of metal with a thin layer of zinc is called \_\_\_\_\_.
  - a) Painting
  - b) Anodising
  - c) Galvanization
  - d) Electroplating
6.  $H_2(g) + Cl_2(g) \rightarrow 2 HCl(g)$  is a
  - a) Decomposition reaction
  - b) Combination reaction
  - c) Single Displacement Reaction
  - d) Double Displacement reaction
7. The Endarch condition is characteristic of \_\_\_\_\_.
  - a) Root
  - b) Stem
  - c) Leaves
  - d) Petiole
8. Which of the following process requires energy?
  - a) Active transport
  - b) Diffusion
  - c) Osmosis
  - d) All of them
9. There are \_\_\_\_\_ pairs of cranial nerves and \_\_\_\_\_ pairs of spinal nerves in human.
  - a) 12,31
  - b) 31,12
  - c) 12,13
  - d) 12,21
10. Identify the exocrine gland
  - a) Pituitary gland
  - b) Adrenal gland
  - c) Salivary gland
  - d) Thyroid gland
11. The " use and disuse theory" was proposed by
  - a) Charles Darwin
  - b) Ernst Haeckel
  - c) Jeon Baptiste Lamarck
  - d) Gregor Mendel
12. Which is used to edit program?
  - a) Inkscape
  - b) Script editor
  - c) Stage
  - d) Sprite.

**PART - II****Note: Answer any 7 questions: (Question No.22 is compulsory)****7x2=14**

13. Define force.
14. Write any two uses of concave lenses.
15. What is stellar energy?
16. Match the following:
 

a) Function group -OH	-	Benzene
b) Heterocyclic	-	Potassium stearate
c) Unsaturated	-	Alcohol
d) Soap	-	Furan
	-	Ethene

17. Assertion: The nature of bond in HF molecule is ionic.  
Reason: The electronegativity difference between H and F is 1.9.
- A & R are correct and R explains A.
  - A is correct, R is wrong.
  - A is wrong, R is correct.
  - A and R are correct. R doesn't explain A.
18. Draw and label the structure of oxysomes.
19. State whether true or false. If false, correct the statement.
- Pons helps in regulating respiration.
  - Sympathetic nervous system is a part of central nervous system.
20. Fill in the blanks:
- Normal blood pressure is \_\_\_\_\_.
  - Heart of heart is called \_\_\_\_\_.
21. Write any 2 preventive measures for cancer.
22. A solution was prepared by dissolving 25g of sugar in 100g of water. Calculate the mass percentages of solute.

### PART - III

7X4=28

**Note:** Answer any seven question. (Q.No.32 is compulsory)

23. How does an astronaut float in a space shuttle?
24. What is Doppler effect? Mention two cases in which there is no Doppler effect in sound.
25. Derive the relationship between vapour density and relative molecular mass.
26. How does pH play an important role in everyday life?
27. List out the parasitic adaptation in leech.
28. a) Name the gaseous plant hormone. Describe its different actions in plants.  
b) Which hormone is known as stress hormone in plant. why?
29. Draw the structure of chloroplast and explain.
30. Bio fortification may help in removing hidden hunger. how?
31.  ${}_{92}\text{U}^{235}$  experiences one  $\alpha$ -decay and one  $\beta$ -decay. Find the number of neutrons in the final daughter nucleus that is formed.

### PART- IV

3X7=21

**Note:** 1. Answer all the questions: 2. Each question carries seven marks.  
3. Draw diagrams wherever necessary.

33. a) What is a nuclear reactor? Explain its essential parts with their functions.  
b) Suppose that a sound wave and a light wave have the same frequency, then which one has a longer wavelength and why?  
(or)  
a) Describe rocket propulsion.  
b) Draw a ray diagram to show the image formed by a convex lens when the object is placed beyond 2 F.
34. a) Mention the main postulates of "Modern atomic theory"  
b) Name the acid that renders Aluminium passive. Why?  
(or)  
a) How is Ethanol manufactured from sugarcane?  
b) Why ordinary soap is not suitable to use in hard water?
35. a) Enumerate the functions of blood.  
b) What is bundle of HIS? Who discovered it?  
(or)  
a) With a neat labelled diagrams. Explain the techniques involved in gene cloning.  
b) What are the objectives of POSCO Act?