

Reg.No.

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COMMON HALF YEARLY EXAMINATION - 2019

STANDARD - IX

Time : 2.30 hrs

Science

Marks: 75

12 x 1 = 12

I. Choose the correct answer:

1. Choose the correct one.
 - a) mm < cm < m < km
 - b) mm > cm > m > km
 - c) km < m < cm < mm
 - d) mm > m > cm > km
2. The size of an air bubble rising up in water
 - a) decreases
 - b) increases
 - c) remains same
 - d) may increase or decrease
3. Electroplating is an example for
 - a) heating effect
 - b) chemical effect
 - c) flowing effect
 - d) magnetic effect
4. transformer works on
 - a) Ac only
 - b) DC only
 - c) both AC and DC
5. Among the following the odd pair is
 - a) $^{18}_8\text{O}$, $^{37}_{17}\text{Cl}$
 - b) $^{40}_{18}\text{Ar}$, $^{14}_7\text{N}$
 - c) $^{30}_{14}\text{Si}$, $^{31}_{15}\text{P}$
 - d) $^{54}_{24}\text{Cr}$, $^{39}_{19}\text{K}$
6. If Dobereiner is related with law of triads then Newlands is related with
 - a) Modern periodic law
 - b) Hunds rule
 - c) Law of octaves
 - d) Paulis exclusion principle
7. Covalent bond is formed by
 - a) Transfer of electrons
 - b) sharing of electrons
 - c) sharing a pair of electrons
8. Which of the following is a complex tissue?
 - a) parenchyma
 - b) collenchyma
 - c) xylem
 - d) sclerenchyma
9. Bile helps in the digestion of
 - a) proteins
 - b) sugar
 - c) fats
 - d) carbohydrates
10. The sprouting of onion and potatoes can be delayed by the process of
 - a) freezing
 - b) irradiation
 - c) salting
 - d) canning
11. Data processing involves steps.
 - a) seven
 - b) four
 - c) six
 - d) eight
12. Pen drive a/an device
 - a) output
 - b) input
 - c) storage
 - d) connecting cable

II. Answer the following questions any 7 (Ques. No. 22 is compulsory)

7x2 = 14

13. Define standard unit.
14. Define velocity.
15. Define electric field.
16. Match the following:

1. Magnetic material	- a) Oersted
2. non - magnetic material	- b) Iron
3. Current and magnetism	- c) Induction
3. Electromagnetic induction	- d) Wood
4. Electric generator	- e) Faraday
17. Write the electronic configuration of K and Cl.
18. State whether true or false, if false, correct statement.
Alloys bear the characteristics of both metals and nonmetals.
19. Define transpiration.
20. What is an adulterant?
21. Define computer.
22. Name the parts of a computer.

III. Answer the following question any 7 (Ques. No. 32 is compulsory)**7 x 4 = 28**

23. Write the rules that are followed in writing the symbols of units in SI system.
24. i) Distinguish distance and displacement.
ii) Compare speed and velocity.
25. i) Density of mercury is 13600 Kg m^{-3} calculate the relative density.
ii) State the advantages of ac over dc.
26. State any five features of modern periodic table.
27. List five characteristic features or traits.
28. i) Give the technical terms for the following
a) Growth dependent movement in plants
b) Growth independent movement in plants



29. Explain the structure of nephron.
30. Differentiate
a) Kwashiorkor from Marasmus.
b) Macronutrients from Micronutrients.
31. Differentiate data and information.
32. i) Bring out any two differences between input and output devices.
ii) Match the following:
- | | |
|----------------------------|----------------------|
| 1. III generation computer | - Integrated circuit |
| 2. Text, number | - Information |
| 3. Transistor | - Father of computer |
| 4. Directly used | - Data |
| 5. Charles Babbage | - II generation |

IV. Answer in detail:**3x7 = 21**

33. How will you find the thickness of a one rupee coin? **(OR)**
Explain the principle, construction and working of a dc motor.
34. Explain Tyndall effect and Brownian movement with suitable diagram. **(OR)**
a) Why do $^{35}_{17}\text{Cl}$ and $^{37}_{17}\text{Cl}$ have the same chemical properties? In what respect do these atoms differ?
b) What are the limitations of Mendeleev's periodic table?
c) Fill in the following table according to the type of bonds formed in the given.
Molecule CaCl_2 , H_2O , CaO , CO , KBr , HCl , CCl_4 , HF , CO_2 , Al_2Cl_6

Ionic bond	Covalent bond	Coordinate covalent bond

35. a) List out the differences between mitosis and meiosis.
b) What is nastic movement? **(OR)**
Assertion and Reason
a) Assertion : Urea is excreted out through the kidneys.
Reason : Urea is a toxic substance.
a) If both assertion and reason are true and reason is the correct explanation of assertion
b) If both assertion and reason are true but reason is not the correct explanation of Assertion.
c) If assertion is true but reason is false
d) If both assertion and reason are false
b) Give abbreviations for the following.
i) ISI ii) FPO iii) AGMARK iv) FCI v) FSSAI
c) List out the generations of computer.