

V9S

Virudhunagar District

Common Half Yearly Examination - December 2025

**Standard 9****SCIENCE**

Time: 3.00 Hrs.

Marks: 75

Part - I**Choose the correct answer:****12×1=12**

- 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) Clouds float in atmosphere because of their low

| | | | |
|------------|-------------|-------------|---------|
| a) density | b) pressure | c) velocity | d) mass |
|------------|-------------|-------------|---------|
- 3) Which of the following converts electrical energy into mechanical energy?

| | | | |
|----------|------------|--------------|-----------|
| a) Motor | b) Battery | c) Generator | d) Switch |
|----------|------------|--------------|-----------|
- 4) When we mix a drop of ink in water we get a _____.

| | |
|-------------------------|---------------|
| a) Heterogenous mixture | b) Compound |
| c) Homogenous mixture | d) Suspension |
- 5) Modern periodic law states that the physical and chemical properties of elements are the periodic functions of their _____.

| | | | |
|-------------------|------------------|-----------------|--------------|
| a) atomic numbers | b) atomic masses | c) similarities | d) anomalies |
|-------------------|------------------|-----------------|--------------|
- 6) Number of valence electrons in carbon is

| | | | |
|------|------|------|------|
| a) 2 | b) 4 | c) 3 | d) 5 |
|------|------|------|------|
- 7) Identify the animal having four chambered heart.

| | | | |
|-----------|----------|--------------|------------|
| a) Lizard | b) Snake | c) Crocodile | d) Calotes |
|-----------|----------|--------------|------------|
- 8) Excretory organs of tapeworm is

| | | | |
|----------------|--------------|-----------------|----------------|
| a) flame cells | b) nephridia | c) body surface | d) solenocytes |
|----------------|--------------|-----------------|----------------|
- 9) Which of the following is a complex tissue?

| | | | |
|---------------|----------------|----------|-----------------|
| a) Parenchyma | b) Collenchyma | c) Xylem | d) Sclerenchyma |
|---------------|----------------|----------|-----------------|
- 10) The structural and functional unit of kidney is _____.

| | | | |
|----------|----------|------------|-----------|
| a) villi | b) liver | c) nephron | d) ureter |
|----------|----------|------------|-----------|
- 11) The physician who discovered that scurvy can be cured by ingestion of citrus fruits is _____.

| | | | |
|---------------|------------------|-------------------|-----------------|
| a) James Lind | b) Louis Pasteur | c) Charles Darwin | d) Isaac Newton |
|---------------|------------------|-------------------|-----------------|
- 12) Which of the following is transmitted through air?

| | | | |
|-----------------|---------------|------------|------------|
| a) Tuberculosis | b) Meningitis | c) Typhoid | d) Cholera |
|-----------------|---------------|------------|------------|

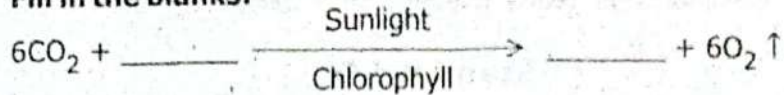
Part - II**Answer any 7 questions: [Q.No. 22 is compulsory]****7×2=14**

- 13) Define velocity.
- 14) On what factors the pressure exerted by the liquid depends on?
- 15) State Fleming's Left Hand Rule.
- 16) What are the uses of 'Plaster of Paris'?
- 17) What is nematocyst?
- 18) Mention any two vital functions of human kidney.
- 19) What is an adulterant?
- 20) Define Prions.



V9S

21) Fill in the blanks:



22) If a man has a mass 50 kg on the earth, then what is his weight?

Part - III**Answer any 7 questions: [Q.No. 32 is compulsory]****7×4=28**

23) How will you find the thickness of a one rupee coin?

24) a) State Pascal's law.

b) Why it is easy to swim in river water than in sea water?

25) Explain two types of transformer.

26) List down the differences between Ionic and Covalent compounds.

27) Write any four uses of bases.

28) a) **Match it:**

| | | |
|-----------------|---|----------|
| Coelelerata | - | Snail |
| Platyhelminthes | - | Starfish |
| Echinodermata | - | Tapeworm |
| Mollusca | - | Hydra |

b) Why are frogs said to be amphibians?

29) Write about elements of xylem.

30) How are vitamins useful to us? Tabulate the deficiency diseases caused by vitamins.

31) Suggest the immunization schedule for a new born baby till 12 months of age?

32) a) Find the radius of curvature of a concave mirror whose focal length is 5 cm.

b) Calculate the number of neutrons in the following atoms.

(i) $^{196}_{76}\text{Os}$ (ii) $^{54}_{24}\text{Cr}$ **Part - IV****Answer all questions:****3×7=21**

33) Describe the construction and working of mercury barometer.

(OR)

Draw a neat diagram of an AC generator and explain its working.

34) a) Explain Tyndall effect and Brownian movement with suitable diagram.

b) Define Sublimation. **(OR)**

a) Explain the postulates of Bohr's atomic model.

b) Sulphuric acid is king of chemicals. Why is it called so?

c) Define aquaregia.

35) a) Give an account of Phylum Arthropoda.

b) List five characteristic features of fishes.

(OR)

a) List out the differences between mitosis and meiosis.

b) **Match it:**

| | | |
|-----------|---|-----------------|
| Skin | - | Urine |
| Lungs | - | Sweat |
| Intestine | - | Carbon dioxide |
| Kidneys | - | Undigested food |

