

V10S

Virudhunagar District Common Examinations
Common Thrid Revision Test - February 2023Standard 10
SCIENCE
PART - IMarks: 75
12x1=12

Time: 3.00 Hours

Note : i) Answer all the questions.

ii) Choose the most suitable answer

- 1) In which of the following sport the turning effect of force used
a) Swimming b) tennis c) cycling d) hockey
- 2) If a substance is heated or cooled, the change in mass of that substance is
a) positive b) negative
c) zero d) none of the above
- 3) When a sound wave travels through air, the air particles
a) vibrate along the direction of the wave motion
b) vibrate but not in any fixed direction
c) vibrate perpendicular to the direction of the wave motion
d) do not vibrate
- 4) The volume occupied by 1 mole of a diatomic gas at S.T.P is
a) 11.2 litre b) 5.6 litre c) 22.4 litre d) 44.8 litre
- 5) Dilute or concentrated acid does not attack aluminium.
a) Sulphuric b) Hydrochloric c) Formic d) Nitric
- 6) Powdered CaCO_3 reacts more rapidly than flaky CaCO_3 because of
a) large surface area b) high pressure
c) high concentration d) high temperature
- 7) Krebs's cycle takes place in
a) Chloroplast b) Mitochondrial matrix
c) stomata d) inner mitochondrial membrane
- 8) The segments of leech are known as
a) Metameres b) proglottids c) strobila d) All the above
- 9) EEG is an instrument which records the electrical impulses of
a) Heart b) Lungs c) kidney d) brain
- 10) We can cut the DNA with the help of
a) scissors b) restriction endonucleases
c) knife d) RNAase
- 11) Polyphagia is a condition seen in
a) Obesity b) Diabetes mellitus
c) Diabetes insipidus d) AIDS
- 12) Which is used to build scripts?
a) script area b) Block palette c) stage d) sprits

PART - II

7x2=14

Answer any 7 questions: [Q.No. 22 is compulsory]

- 13) Define moment of couple.
- 14) The aquatic animals live more in cold region why?
- 15) What is rust? Give the equation for formation of rust.
- 16) Name the simplest ketone and give its structural formula.
- 17) Why is the circulation in man referred to as double circulation.
- 18) Match the following
a) Nissil's granules - Fore brain
b) Hypothalamus - Peripheral Nervous system.
c) Cerebellum - Cyton
d) Schwann cell - Hind brain
- 19) State the applications of DNA finger printing technique.

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 20) Name two maize hybrids rich in amino acid lysine.
 21) Identify the part A, B, C and D.



- 22) Calculate the gram molecular mass of Co_2

PART - III

7×4=28

Answer any 7 questions: [Q.No. 32 is compulsory]

- 23) Give the applications of universal law of gravitation.
 24) Explain the experiment of measuring the real and apparent expansion of a liquid with a neat diagram.
 25) The electronic configuration of metal A is 2, 8, 18, 1. The metal A when exposed to air and moisture forms B a green layered compound. A with H_2SO_4 forms C and D along with water. D is a gaseous compound. Find A, B, C and D.
 26) Write notes on i) Saturated solution ii) Unsaturated solution
 27) Describe and name three stages of cellular respiration that aerobic organisms use to obtain energy from glucose.
 28) Classify neurons based on its structure.
 29) Describe the structure and working of human heart.
 30) Write the events involved in the sexual reproduction of flowering plant.
 a) Discuss the first event and write the types.
 b) Mention the advantages and disadvantages of the event
 31) Enumerate the importance of forest.
 32) A person with myopia can see objects placed at a distance of 4m. If he wants to see objects at a distance of 20m, What should be the focal length and power the concave lens he must wear?

PART - IV

3×7=21

Answer all the questions. Each question carries seven marks:

[Draw diagram wherever necessary]

- 33) a) State Newton's laws of motion.
 b) State Rayleigh's law of Scattering.
 (OR)
 What is a nuclear reactor? Explain its essential part with their functions?
 34) a) How does pH play an important role in everyday life?
 b) What are factors influencing the rate of reaction?
 (OR)
 a) How is ethanol manufactured from sugarcane?
 b) Mention any four uses of ethanoic acid?
 35) a) Explain the structure of a chromosome.
 b) What do you understand by the term phenotype and genotype.
 (OR)
 a) Suggest measures to overcome the problems of an alcoholic.
 b) What are psychotropic drugs?