



COMMON THIRD REVISION TEST – 2023

Standard X

Reg.No.:

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SCIENCE

Part - I

Time: 3.00 hrs.

Marks:75

12 x 1 = 12

I. Choose the correct answer:

1. If the Earth shrinks to 50% of its real radius its mass remaining the same, the weight of a body on the Earth will _____.
 - a) decrease by 50%
 - b) increase by 50%
 - c) decrease by 25%
 - d) increase by 300%
2. In a myopic eye, the image of the object is formed _____.
 - a) behind the retina
 - b) on the retina
 - c) in front of the retina
 - d) on the blind spot
3. Proton-Proton chain reaction is an example of
 - a) nuclear fission
 - b) α -decay
 - c) β -decay
 - d) nuclear fusion
4. In the nucleus of ${}_{20}\text{Ca}^{40}$, there are _____.
 - a) 20 protons and 40 neutrons
 - b) 20 protons and 20 neutrons
 - c) 20 protons and 40 electrons
 - d) 40 protons and 20 electrons
5. Deliquescence is due to _____.
 - a) strong affinity to water
 - b) less affinity to water
 - c) strong hatred to water
 - d) inertness to water
6. The secondary suffix used in IUPAC nomenclature of an aldehyde is _____.
 - a) -ol
 - b) -oic acid
 - c) -al
 - d) -one
7. Casparian strips are present in the _____ of the root.
 - a) cortex
 - b) pith
 - c) pericycle
 - d) endodermis
8. Vomiting control centre is located in _____.
 - a) medulla oblongata
 - b) stomach
 - c) cerebrum
 - d) hypothalamus
9. Which organ acts as both exocrine gland as well as endocrine gland?
 - a) pancreas
 - b) kidney
 - c) liver
 - d) lungs
10. Identify Dihybrid ratio _____.
 - a) 9:3:3:1
 - b) 9:1:3:1
 - c) 9:1:3:3
 - d) 1:2:1
11. The theory of natural selection for evolution was proposed by _____.
 - a) Harshberger
 - b) Libby
 - c) Lamarck
 - d) Charles Darwin
12. Which of the following is / are a fossil fuel ?
 - i) tar
 - ii) coal
 - iii) Petroleum
 - a) (i) only
 - b) (i) and (ii)
 - c) (ii) and (iii)
 - d) (i), (ii) and (iii)

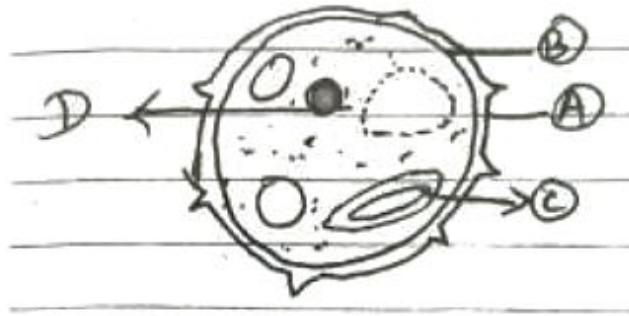
Part - II

II. Answer any 7 questions. (Q.No.22 is compulsory)

7 x 2 = 14

13. What is co-efficient of real expansion?
14. State Ohm's law.
15. Why does sound travel faster on a rainy day than on a dry day?
16. 'A' is a silvery metal. A combines with O_2 to Form B at 800°C . The alloy of A is used making the aircraft. Find A and B.
17. Differentiate soaps and detergents.
18. What is Bolting? How can it be induced artificially?

19. Draw and identify the parts A, B, C & D. (2)



20. What are the contributing factors for obesity?
 21. Why is Archaeopteryx considered to be a connecting link?
 22. A charge of 10 coulomb flows through a bulb in 5 second. What is the current through the bulb?

Part - III

III. Answer any 7 questions. (Q.No.32 is compulsory)

7 x 4 = 28

23. State Newton's laws of motion.
 24. a) State Rayleigh's law of scattering.
 b) Why does the sky appear in blue colour?
 25. Distinguish between the resistivity and conductivity of a conductor.
 26. a) Explain why the ceilings of concert halls are curved.
 b) State soddy and Fajan's displacement law.
 27. Find the percentage of nitrogen in ammonia.
 28. Differentiate Monocot root and Dicot root.
 29. a) Who discovered Rh factor? Why was it named so?
 b) Name the types of blood groups.
 30. Explain the structure of a chromosome.
 31. Discuss the importance of biotechnology in the field of medicine.
 32. A solution was prepared by dissolving 25g of sugar in 100g of water. Calculate the mass percentage of solute.

Part - IV

IV. Answer all the questions. (Draw diagrams wherever necessary)

3 x 7 = 21

33. a) i) State the law of volume (Charles law)
 ii) Derive the ideal gas equation.
 (OR)
 b) i) What are the advantages of LED TV over the normal TV?
 ii) List the merits of LED bulb.
 34. a) i) Define solubility.
 ii) Write notes on various factors affecting solubility. (OR)
 b) i) What is pH scale?
 ii) What is the normal pH value of human blood?
 iii) How does pH play an important role in everyday life?
 35. a) i) Why are the rings of cartilages found in trachea of rabbit?
 ii) Differentiate between systole and diastole.
 iii) Why are thyroid hormones referred as personality hormone? (OR)
 b) i) What precautions can be taken for preventing heart diseases?
 ii) Enumerate the importance of forest.
