

Class : 10

Register
Number

SECOND REVISION EXAMINATION, FEBRUARY - 2023

SCIENCE

[Max. Marks : 75]

Time Allowed : 3.00 Hours]

PART - 1

Choose the correct answer.

Answer all the questions.

12x1=12

- If the earth shrinks to 50% of its real radius its mass remaining the same weight of the body on the earth will.
 - decrease by 50%
 - increase by 50%
 - decrease by 25%
 - increase by 300%
- Kilowatt hour is the unit of
 - resistivity
 - conductivity
 - electrical energy
 - electrical power
- Power of a lens is -4D, then its foca length is
 - 4 m
 - 40 m
 - 0.25 m
 - 2.5 m
- Which of the following represents 1 amu?
 - mass of a C-12 atom
 - mass of a hydrogen atom
 - 1 / 12th of the mass of a C-12 atom
 - mass of O-16 atom.
- group contains the member fo halogen family.
 - 17th
 - 15th
 - 18th
 - 16th
- TEM^F in soaps represents ----- content in soap.
 - mineral
 - vitamin
 - fatty acid
 - carbolydrates
- Which is formed during anaerbic respiration.
 - Carbohydrate
 - ethyl alcohol
 - Acetyl CoA
 - Pyruvate
- A patient with blood group was injured in a accident and has blood loss. Which group of blood should be used by a doctor. for transfusion?
 - O group
 - AB group
 - A or B group
 - All blood groups
- According to mendel alleles hane the following character.
 - Pair of genes
 - Responsible for character
 - Production of gametes
 - Recessive factors
- Birds have evolved from mammals. (True or false).
- DNA fingerprinting is based on the priniples of identifying ----- sequence of DNA.
 - Single stranded
 - Mutated
 - Polymorphic
 - repentive
- Commen energy source in village is -----
 - electricity
 - coal
 - biogas
 - wood and animal dung

Part - II

Answer any seven questions. Q.No. 22 is compulsory.

7x2 = 14

- How does an astronaut float in a space shuttle?
- Match the following.

a) Soddy fajan	-	(i) Natural radioactivity
b) Irene curie	-	(ii) Displacement law
c) Henry becquerel	-	(iii) Mass energy equivalance
d) Albert Einstein	-	(iv) Artificial Radioactivity
- Name the acid that renders aluminium passive why?
- Why does the reaction rate of a reachich increase on raising the tempuature?
- How is diastema formed in rabbit?
- What is transpiration? Give the importance of transpiration?

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19. Identify the parts A,B,C and D.



20. What do you understand by the term phenotype and genotype?
 21. What is metastasis?
 22. Calculate the molecular mass?
 (i) CO₂ (ii) H₂O

PART – III

Answer any seven questions .Q.No: 32 is compulsory.

7x4 = 28

23. (i) Draw a ray diagram to show the image formed by a convex lens when the object is placed between F and 2 F.
 (ii) List properties of light
 24. (i) Write any two elements which are used for inducing natural radioactivity?
 (ii) Give any 2 uses of radio isotopes in the field of agriculture.
 25. Write the applications of Avagadro's hypothesis?
 26. Differentiate soap and detergent.
 27. Define Esterification.
 28. Chloroplast - Explain with diagram.
 29. Discuss the importance of Biotechnology in the field of medicine.
 30. Expand the following abbreviations.
 a) HIV b) BMI c) AIDS d) IDDM
 31. Enumerate the importance of forest.
 32. (i) A series circuit consists of three resistions with values of 140Ω, 250Ω and 220Ω .Find the total resistance.
 (ii) How many electrons are passing per second in a circuit in which the iis a current of 5A?

PART-IV

Answer all the questions in detail.

3x7=21

33. a) (i) State Joule's law of heating
 (ii) An alloy of nickel and chromium is used as the heating element. Why?
 (iii) How does a fuse wire protect eletricial appliances.
 (OR)
 b) What is nuclear reactor? Explain its essential parts with their functions.
 34. a) (i) Give any 4 features of 'Modern atomic theory'.
 (ii) Calculate the number of moles in
 (a) 27g of Al (b) 1.51x10²³ moleales of NH₄ Cl
 (OR)
 b) (i) What are called thermolysis reactions?
 (ii) Differentiate hygroscopic and deliquescent substances?
 35. a) (i) Explain the structure of chromosome?
 (ii) Regular physical exercise is advisable for normal functioning of human body. What are the advantages of practicing exercise?
 (OR)
 b) (i) Define the following:
 (a) Addiction (b) Drug dependence
 (ii) What is the importance of rain water harvesting?