



CADET COLLEGE MOHMAND, MAMAD GAT
ENTRY TEST SAMPLE PAPER FOR CLASS – XI
PAPER: PHYSICS

Maximum Marks:50

Time: 50minutes

Name: _____

Roll No: _____

File # _____ Subject _____ Time 20 minutes (20)

Q1: Choose the correct option.

- i. When the area of wire is double and length becomes half then resistivity will be.
☐ Double ☐ 4-times ☐ Remain same ☐ None
- ii. The unit of temperature co-efficient of resistance is _____
☐ K^{-1} ☐ $V K^{-1}$ ☐ $V^{-1} K^{-1}$ ☐ $V K^{-2}$
- iii. The least count of Vernier Caliper is _____
☐ 0.01cm ☐ 0.001cm ☐ 0.1cm ☐ Both a & b
- iv. $1N =$ _____
☐ $Kgmsec^{-2}$ ☐ $Kgm^{-1}sec$ ☐ $Kgmsec^{-1}$ ☐ $Kg m^{-1}sec^{-1}$
- v. According to 2nd condition of equilibrium _____
☐ $\sum \vec{F} = 0$ ☐ $\sum \vec{T} = 0$ ☐ $\sum \vec{W} = 0$ ☐ $\sum \vec{P} = 0$
- vi. Kilowatt hour is the unit of _____
☐ Power ☐ Energy ☐ Potential difference ☐ None
- vii. Alpha (α) particle having _____ charge?
☐ Double positive ☐ Negative ☐ No ☐ Double negative
- viii. The _____ of the CRO coated with fluorescent salt.
☐ Grid ☐ Filament ☐ Screen ☐ Deflecting plates
- ix. The S.I derived unit of radioactivity is _____
☐ Becquerel (Bq) ☐ eV ☐ $Wattsec^{-1}$ ☐ Jm^{-1}
- x. The unit of electric field intensity E is _____
☐ NC^{-1} ☐ NC^{-2} ☐ NC ☐ NC^2
- xi. If we increase the voltage applied to the capacitor, then capacitance of capacitor will be _____
☐ Increased ☐ Decreased ☐ Remain same ☐ All
- xii. A device which converts electrical energy into mechanical energy is called _____
☐ A. motor ☐ A.C generator ☐ D.C generator ☐ Transformer
- xiii. The value of g at moon is less than that at surface of earth because.
☐ $m_m > m_E$ ☐ $M_m = m_E$ ☐ $m_E > m_m$ ☐ None
- xiv. The density of mercury is _____
☐ $1000kgm^{-3}$ ☐ $2000kgm^{-3}$ ☐ $6000kgm^{-3}$ ☐ $136000kgm^{-3}$
- xv. The period of the pendulum depend on _____
☐ Mass ☐ Length ☐ Energy ☐ Amplitude
- xvi. If length of the pendulum is increased 4 times then its time period will _____
☐ Become half ☐ Doubled ☐ One fourth ☐ Increase 4time
- xvii. Which of the following is mechanical _____ wave.
☐ Radio ☐ TV ☐ Sound ☐ Ultraviolet
- xviii. We cannot hear sound produced by pendulum because.
☐ It cannot produce sound ☐ Its frequency is very high
☐ It has frequency less than 20Hz ☐ None
- xix. If focal length of a lens is 20cm then its power will be.
☐ 20D ☐ 10D ☐ 5D ☐ 2D
- xx. Both potential difference and emf has _____ units.
☐ Same ☐ Different ☐ No ☐ None

SECTION – B

Time 30: Minutes

Q2: Attempt any six (6) questions.

(30)

- i. An object of mass 1kg is raised through height 5m in 10s. Find the power?
- ii. How would you make the rays from a luminous blub parallel by means of concave mirror?
- iii. Which material is more elastic steel or rubber and why?
- iv. How bats are able to fly at night time without colliding with each other.
- v. Why is it possible for a bird to perch on a high voltage wire without being electrocuted?
- vi. A beaker contains 200ml of water, what is volume of water in cm^3 and m^3 ?
- vii. Write any five properties of Alpha (α) Rays?



CADET COLLEGE MOHMAND, MAMAD GAT
ENTRY TEST SAMPLE PAPER FOR CLASS – XI
PAPER: BIOLOGY

Maximum Marks: 50

Time: 50 minutes

Name: _____

Roll No: _____

File # _____ Subject _____ Time 20 minutes

Q1: Fill in the blanks. (05)

- i. Duplication of DNA, usually prior to cell division is called _____.
- ii. The symbiotic interaction in which both participants benefit is called _____.
- iii. _____ is the diffusion of water through a differentially permeable membrane.
- iv. _____ is the process by which offspring are produced without egg fertilization.
- v. Cells in the testes that produce testosterone is called _____.

Q2: Choose the correct option. (15)

- i. A group of individuals, belonging to the same species living in the same place, at the same time is
☐ Community ☐ Population ☐ Ecosystem ☐ Niche
- ii. The process of eating and being eaten is called.
☐ Food web ☐ Ecology ☐ Food chain ☐ Conservation
- iii. The germination, in which the cotyledons remain underground is
☐ Epigeal germination ☐ Hypogeal ☐ Budding ☐ Binary fission
- iv. Receptors are the organs in the body, which receive.
☐ Effectors ☐ Brain ☐ Stimuli ☐ CNS
- v. _____ is the removal of extra water through small pores at the tips of the leaves.
☐ Thermoregulation ☐ Guttation ☐ Transpiration ☐ Homeostasis
- vi. Which mosquito can transmit plasmodium in human beings?
☐ Anopheles ☐ Culex ☐ Aedes ☐ All
- vii. Slime molds belong to phylum _____
☐ Protozoa ☐ Tracheophyta ☐ Mycota ☐ Chordata
- viii. Which is a molecule containing DNA from two different organisms?
☐ Vector DNA ☐ DNA clone ☐ Plasmid DNA ☐ Recombinant DNA
- ix. The process in which nitrates and nitrites are reduced to nitrogen gas by bacteria is _____.
☐ Assimilation ☐ Denitrification ☐ Ammonification ☐ Nitrification
- x. During microscopy two _____ lenses are used.
☐ Convex ☐ Concave ☐ Convex & concave ☐ All
- xi. The muscles which are unstriated & spindle shape are _____.
☐ Cardiac muscles ☐ Smooth muscles ☐ Skeletal muscles ☐ All
- xii. Crossing over occurs between _____.
☐ Chromatids ☐ Sister chromatids ☐ Daughter chromatids ☐ Non homologous chromatids
- xiii. The addition of single chromosome in diploid set is called _____.
☐ Nullisomy ☐ Trisomy ☐ Tetrasomy ☐ Triploidy
- xiv. Psilocybin is taken from _____.
☐ Cactus ☐ Marijuana ☐ Mushroom ☐ Poppy
- xv. In a dihybrid cross the genotypically ratio of green & round seed is _____.
☐ 3:1 ☐ 2:1 ☐ 1:1 ☐ 4:1

SECTION – B

Time 30: Minutes

Q3: Attempt any six (6) questions. (30)

- i. Draw neat and labeled diagram of human respiratory system.
- ii. Differentiate between producers and decomposers.
- iii. Draw the checker board of Mendel law of independent assortment.
- iv. List down the endangered species of Pakistan and what are the reasons behind their population decrease?
- v. Justify the way nervous system coordinate complex movement of hands to write alphabets.
- vi. Why pea was the most suitable plant for Mendel's experiments?
- vii. What happened if glucose concentration is high in the blood?



CADET COLLEGE MOHMAND, MAMAD GAT
ENTRY TEST SAMPLE PAPER FOR CLASS – XI
PAPER: CHEMISTRY

Maximum Marks: 50

Time: 50 minutes

Name: _____

Roll No: _____

File # _____ Subject _____ Time 20 minutes

Q1: Choose the correct option.

(20)

- i. A liquid boils when its vapour pressure becomes equal to
☐ 760cm of Hg ☐ 1 pascal ☐ 0.1 atm ☐ 101.325 kilo pascal
- ii. Among the alkali metals, the metals with the highest ionization potential is
☐ Na ☐ Li ☐ Rb ☐ Cs
- iii. Tendency of a metal to lose electron is
☐ Electronegativity ☐ Electropositivity ☐ Electrolysis ☐ None
- iv. The highest energy state of matter is
☐ Solid ☐ Liquid ☐ Gas ☐ Plasma
- v. When the total number of moles of reactant is equal to the total number of moles of product in a balanced chemical equation, the unit of Kc is
☐ Moles dm³ ☐ Mole dm⁻² ☐ Mole dm⁻³ ☐ No units
- vi. Which one of the following is a basic salt?
☐ (NH₄)₂HPO₄ ☐ NaHCO₃ ☐ Cu(OH)Cl ☐ KHSO₄
- vii. Which of the following is not an organic compound?
☐ Drugs ☐ CO ☐ Dyes ☐ Paints
- viii. Which of the following is the most abundant natural gas?
☐ Ethane ☐ Propane ☐ Methane ☐ None
- ix. R-O-H is the general formula of
☐ Ether ☐ Alcohol ☐ Aldehydes ☐ Ketones
- x. Alkynes undergo which type of reactions across the triple bond?
☐ Substitution ☐ Addition ☐ Elimination ☐ None
- xi. Which is the largest layer of atmosphere by mass?
☐ Troposphere ☐ Thermosphere ☐ Stratosphere ☐ Mesosphere
- xii. Global warming is caused by the increase of _____ in atmosphere
☐ CO₂ ☐ O₂ ☐ H₂ ☐ N₂
- xiii. Which one of following can be broken down into simpler substances?
☐ Ammonia ☐ Oxygen ☐ Sulphur ☐ Iron filling
- xiv. Which one is oligosaccharides?
☐ Glucose ☐ Fructose ☐ Sucrose ☐ Galactose
- xv. Electron in its ground state does not
☐ Spin ☐ Revolve ☐ Radiate energy ☐ Reside in or out
- xvi. Which one is the lightest?
☐ A hydrogen atom ☐ An alpha particle ☐ Proton ☐ An electron
- xvii. The polymer of amino acid is
☐ Vitamin ☐ Proteins ☐ Lipids ☐ Carbohydrates
- xviii. Which one of the following is secondary pollutants?
☐ Carbon dioxide ☐ Acid rain ☐ SO₂ ☐ NO₂
- xix. Which of the following would have the largest ionization energy?
☐ Na ☐ Al ☐ H ☐ He
- xx. Shielding effect is due to
☐ Neutron ☐ Proton ☐ Proton & neutron ☐ Electron

SECTION – II

Time 30: Minutes

Q2: Attempt all questions.

(30)

- i. a) Write the statement of law of Mass Action.
 b) Define reversible and irreversible reactions with example.
- ii. Give reasons why Cl₂ has non polar covalent bonds while HCl has polar covalent bonds?
- iii. Calculate the pH and POH of 0.001 M HNO₃ solution?
- iv. Why fire starts burning on the surface of water, when a piece of sodium metals is put into it? Write chemical reaction.
- v. Describe some of the sources and uses of carbohydrates.
- vi. Define electronic configuration. Write the electronic configuration of the following.
 a) Mg₁₂ b) Ca₂₀ c) Fe₂₆ d) K₁₉



CADET COLLEGE MOHMAND, MAMAD GAT
ENTRY TEST SAMPLE PAPER FOR CLASS - XI
PAPER: ENGLISH

Maximum Marks: 50

Time: 50 Minutes

Name: _____

Roll No: _____

Q1: Do as directed.

(10)

- i. "Where do you live", asked the stranger. (change the narration)
- ii. Life is simple from worries free. (arrange the sentence)
- iii. My teacher often says to me, "if you don't work hard, you will fail". (change the narration)
- iv. He draws _____ his parents for his educational expenses. (put the preposition)
- v. These news are true. (correct the sentence)
- vi. He insisted _____ going there. (add preposition)
- vii. I walk five kilometers. (change this sentence into future perfect continuous tense)
- viii. She is an European. (correct the sentence)
- ix. Do you know his father? (change the voice)
- x. Ali read the newspaper. (change into interrogative)

Q2: Translate into English.

(05)

۱. وہ اپنے لڑکے کا سچا ہے۔
 ۲. اس نے مجھ سے کہا نا پکڑا ہوا۔
 ۳. استاد نے سب سے پہلے کہا۔
 ۴. جو نہیں وہ لٹا لوگ اس پر ٹوٹ پڑے تھے۔
 ۵. کہا دو اور دو چار ہوتے ہیں؟

Q3: Use any five (5) pair of words in your own sentences.

(05)

- | | | |
|------------------|-------------------|-----------------------|
| i. Cannon, Canon | ii. Dual, Duel | iii. Loose, Lose |
| iv. Raise, Raze | v. Insure, Ensure | vi. Virtual, Virtuous |

Q4: Translate the given sentences into Urdu.

(05)

- i. Lahore is an ancient and historical city.
- ii. Signs of anxiety disappeared from his face.
- iii. His mausoleum also lies in this city.
- iv. Green grass grew every season on the banks of the stream.
- v. The consumption of oil industry and agriculture cannot be curtailed.

Q5: Write a letter to your friend telling him "why I want to join Cadet College Mamad Gat?" (10)

Q6: Write an essay (200-250 words) on Environmental Pollution, highlighting its causes effects and suggestions to control pollution. (10)