

PGIMER B.SC NURSING SAMPLE PAPER 06

A) Time Allowed: 1 Hour 30 Minutes.

B) Maximum Marks: 100

C) Total Questions: 100

General Instructions:

- This question paper consists of five sections: Physics, Chemistry, Biology, English, and General Knowledge.
- Each section contains objective type questions with four multiple-choice options (A, B, C, D).
- +1 mark is awarded for each correct answer and 0.25 marks are deducted for each wrong answer.
- The question paper is available in English language only.

SECTION 1 - BIOLOGY

1. Which cranial nerve regulates heart rate and the digestive tract?

- (a) Oculomotor nerve
- (b) Trigeminal nerve
- (c) Vagus nerve
- (d) Abducens nerve

2. What is the structural unit of the kidney?

- (a) Neuron
- (b) Nephron
- (c) Alveoli
- (d) Glomerulus

3. Which gastric cells secrete Intrinsic Factor?

- (a) Chief cells
- (b) Parietal cells
- (c) Goblet cells
- (d) Enteroendocrine cells

4. Down syndrome is a trisomy of which chromosome?

- (a) 18
- (b) 13
- (c) 21
- (d) X

5. Which hormone is responsible for milk ejection?

- (a) Prolactin
- (b) Oxytocin
- (c) Estrogen
- (d) Progesterone

6. What is the fluid between the cornea and lens called?

- (a) Vitreous humor
- (b) Aqueous humor
- (c) Synovial fluid
- (d) Endolymph

7. Which organ converts toxic ammonia to urea?
 - (a) Kidney
 - (b) Liver
 - (c) Spleen
 - (d) Pancreas
8. Which vessel carries deoxygenated blood to the lungs?
 - (a) Aorta
 - (b) Pulmonary Artery
 - (c) Pulmonary Vein
 - (d) Vena Cava
9. Which vitamin is a precursor for Prothrombin?
 - (a) Vitamin A
 - (b) Vitamin C
 - (c) Vitamin K
 - (d) Vitamin D
10. Which layer of skin lacks blood vessels?
 - (a) Epidermis
 - (b) Dermis
 - (c) Hypodermis
 - (d) Subcutaneous layer
11. Glycolysis occurs in which part of the cell?
 - (a) Mitochondria
 - (b) Nucleus
 - (c) Cytoplasm
 - (d) Ribosome
12. The structural unit of the lung for gas exchange is:
 - (a) Bronchus
 - (b) Trachea
 - (c) Alveoli
 - (d) Pleura
13. Which hormone inhibits growth during drought?

- (a) Auxin
- (b) Absciscic acid
- (c) Gibberellin
- (d) Cytokinin

14. HIV destroys which immune cells?

- (a) CD4+ T-cells
- (b) B-cells
- (c) Platelets
- (d) Neutrophils

15. Which joint allows for maximum angular rotation?

- (a) Hinge joint
- (b) Pivot joint
- (c) Ball and socket joint
- (d) Saddle joint

16. The Moro reflex is seen in which age group?

- (a) Newborns
- (b) Adolescents
- (c) Adults
- (d) Elderly

17. Which enzyme digests starch in the mouth?

- (a) Pepsin
- (b) Amylase
- (c) Lipase
- (d) Trypsin

18. What tissue connects bone to bone?

- (a) Tendon
- (b) Ligament
- (c) Cartilage
- (d) Muscle

19. What is the primary function of pulmonary surfactant?

- (a) Trapping dust
- (b) Reducing surface tension

- (c) Warming air
 - (d) Immunity
20. Which disease is transmitted by a sandfly?
- (a) Malaria
 - (b) Kala-azar (Leishmaniasis)
 - (c) Dengue
 - (d) Typhoid
21. What is the "powerhouse" of the cell?
- (a) Golgi Body
 - (b) Mitochondria
 - (c) Lysosome
 - (d) Endoplasmic Reticulum
22. Which brain part maintains body equilibrium?
- (a) Cerebrum
 - (b) Cerebellum
 - (c) Medulla
 - (d) Hypothalamus
23. Gout is caused by the deposition of which crystals?
- (a) Calcium
 - (b) Uric acid
 - (c) Oxalate
 - (d) Phosphate
24. Which valve prevents backflow into the left atrium?
- (a) Tricuspid
 - (b) Mitral
 - (c) Pulmonary
 - (d) Aortic
25. The process of mRNA synthesis from DNA is:
- (a) Replication
 - (b) Transcription
 - (c) Translation
 - (d) Mutation

SECTION 2 - CHEMISTRY

Q26. What is the hybridization of the central sulfur atom in SF_6 ?

- (a) sp^3
- (b) sp^3d
- (c) sp^3d^2
- (d) d^2sp^3

Q27. Under what conditions do real gases behave most like ideal gases?

- (a) High pressure, low temperature
- (b) High pressure, high temperature
- (c) Low pressure, low temperature
- (d) Low pressure, high temperature

Q28. The conjugate base of the bisulfate ion (HSO_4^-) is:

- (a) H_2SO_4
- (b) SO_3^{2-}
- (c) SO_4^{2-}
- (d) OH^-

Q29. If a reaction is spontaneous at all temperatures, what are the signs of ΔH and ΔS ?

- (a) $\Delta H = -, \Delta S = +$
- (b) $\Delta H = +, \Delta S = -$
- (c) $\Delta H = -, \Delta S = -$
- (d) $\Delta H = +, \Delta S = +$

Q30. The rate constant units for a second-order reaction are:

- (a) s^{-1}
- (b) $mol\ L^{-1}\ s^{-1}$
- (c) $L\ mol^{-1}\ s^{-1}$
- (d) $L^2\ mol^{-2}\ s^{-1}$

Q31. What is the structural isomer count for C_5H_{12} ?

- (a) 2
- (b) 3
- (c) 4
- (d) 5

Q32. Which reagent distinguishes between primary, secondary, and tertiary alcohols?

- (a) Tollens' reagent
- (b) Lucas reagent
- (c) Fehling's solution
- (d) Schiff's reagent

Q33. Which crystal defect lowers the density of an ionic solid?

- (a) Frenkel defect
- (b) Schottky defect
- (c) Interstitial defect
- (d) F-center

Q34. The oxidation states of Phosphorus in H_3PO_2 , H_3PO_3 , and H_3PO_4 are:

- (a) +1, +3, +5
- (b) +3, +5, +1
- (c) +5, +3, +1
- (d) +1, +5, +3

Q35. Which group is a strong deactivating and meta-directing group?

- (a) $-NH_2$
- (b) $-CH_3$
- (c) $-NO_2$
- (d) $-OH$

Q36. The Clemmensen reduction uses which reagents?

- (a) $Zn - Hg/HCl$
- (b) NH_2NH_2/KOH
- (c) H_2/Pd
- (d) $NaBH_4$

Q37. If the initial concentration of a first-order reactant is doubled, how does its half-life change?

- (a) Doubles
- (b) Halves
- (c) Stays the same
- (d) Quadruples

Q38. Which transition metal oxide shows metallic conductivity?

- (a) TiO
- (b) CrO_2
- (c) V_2O_5
- (d) MnO_2

Q39. The IUPAC name for $[Co(NH_3)_5(CO_3)]Cl$ is:

- (a) Pentaamminocarbonatocobalt(III) chloride
- (b) Carbonatopentaamminocobalt(III) chloride
- (c) Pentaamminocarbonatocobalt(II) chloride
- (d) Carbonatopentaamminocobalt(II) chloride

Q40. Reverse osmosis is used to obtain pure water from:

- (a) Sea water
- (b) River water
- (c) Rain water
- (d) Ground water

Q41. Which electronic configuration represents the element with the highest second ionization enthalpy?

- (a) $1s^2 2s^1$
- (b) $1s^2 2s^2$
- (c) $1s^2 2s^2 2p^1$
- (d) $1s^2 2s^2 2p^2$

Q42. What happens to configuration during an S_N2 reaction?

- (a) Retention
- (b) Inversion
- (c) Racemization
- (d) No change

Q43. Which molecule is the primary CO_2 acceptor in C_3 plants?

- (a) Phosphoenolpyruvate (PEP)
- (b) Ribulose-1,5-bisphosphate (RuBP)
- (c) Phosphoglyceric acid (PGA)
- (d) Oxaloacetic acid (OAA)

Q44. The Hardy-Schulze rule relates to:

- (a) Coagulation of colloidal solutions

- (b) Adsorption of gases
- (c) Catalytic activity
- (d) Diffusion of solutes

Q45. In a $CuSO_4$ solution, what deposits at the cathode during electrolysis?

- (a) H_2 gas
- (b) O_2 gas
- (c) Cu metal
- (d) S powder

Q46. Which homonuclear diatomic species has a bond order of zero?

- (a) H_2
- (b) He_2
- (c) N_2
- (d) O_2

Q47. What is the total number of σ and π bonds in tetracyanoethylene?

- (a) 9 σ and 9 π
- (b) 8 σ and 8 π
- (c) 7 σ and 9 π
- (d) 9 σ and 8 π

Q48. Sucrose is classified as what type of sugar?

- (a) Monosaccharide
- (b) Disaccharide
- (c) Polysaccharide
- (d) Protein

Q49. The permanent displacement of σ -electrons in a carbon chain is the:

- (a) Inductive effect
- (b) Electromeric effect
- (c) Hyperconjugation effect
- (d) Mesomeric effect

Q50. What is the solubility product (K_{sp}) expression for AB_2 ?

- (a) $[A][B]^2$
- (b) $4s^3$
- (c) s^2
- (d) $[A]^2[B]$

SECTION 3 - PHYSICS

Q51. What is the displacement of a body after 2.5 revolutions on a circular path of radius R ?

- (a) 0
- (b) πR
- (c) $2R$
- (d) $5\pi R$

Q52. Which law explains why passengers fall forward when a bus stops suddenly?

- (a) Newton's First Law
- (b) Newton's Second Law
- (c) Newton's Third Law
- (d) Hooke's Law

Q53. If kinetic energy increases by 300%, by what percentage does momentum increase?

- (a) 100%
- (b) 200%
- (c) 300%
- (d) 400%

Q54. What is the escape velocity from Earth?

- (a) 9.8 km/s
- (b) 11.2 km/s
- (c) 11.2 m/s
- (d) 3.0×10^8 m/s

Q55. According to Hooke's Law, stress is proportional to:

- (a) Strain
- (b) Force
- (c) Area
- (d) Length

Q56. Which phenomenon allows small insects to walk on water?

- (a) Viscosity
- (b) Surface tension
- (c) Buoyancy
- (d) Density

Q57. The efficiency of a heat engine is given by:

- (a) $1 - T_2/T_1$
- (b) T_1/T_2
- (c) W/Q_2
- (d) Q_1/W

Q58. What happens to the frequency of sound when the source moves away from an observer?

- (a) Increases
- (b) Decreases
- (c) Remains constant
- (d) Becomes zero

Q59. How does force change if a dielectric ($K = 4$) is placed between two charges?

- (a) Increases 4 times
- (b) Decreases by factor of 4
- (c) Remains constant
- (d) Decreases by factor of 16

Q60. If a wire is stretched to double its length, what happens to its resistance?

- (a) Remains same
- (b) Doubles
- (c) Quadruples
- (d) Halves

Q61. Which instrument measures EMF without drawing current?

- (a) Voltmeter
- (b) Potentiometer
- (c) Ammeter
- (d) Galvanometer

Q62. What path does a charged particle take in a perpendicular magnetic field?

- (a) Straight line
- (b) Circular
- (c) Parabolic
- (d) Spiral

Q63. Why are transformer cores laminated?

- (a) To reduce copper loss
- (b) To reduce eddy currents
- (c) To reduce hysteresis loss
- (d) To reduce flux leakage

Q64. Which EM wave has the highest frequency?

- (a) Radio waves
- (b) Infrared
- (c) Visible light
- (d) Gamma rays

Q65. An object at the focal point of a convex lens forms an image at:

- (a) Infinity
- (b) $2F$
- (c) Focus
- (d) Virtual point

Q66. What happens to fringe width in Young's Double Slit Experiment when immersed in water?

- (a) Increases
- (b) Decreases
- (c) Remains same
- (d) Becomes zero

Q67. Threshold frequency relates to:

- (a) Photoelectric effect
- (b) Refraction
- (c) Interference
- (d) Polarization

Q68. In the Bohr model, how does the radius r_n scale with n ?

- (a) $r_n \propto n$
- (b) $r_n \propto n^2$
- (c) $r_n \propto 1/n$
- (d) $r_n \propto \sqrt{n}$

Q69. If half-life is 10 days, what fraction remains after 30 days?

- (a) 12

- (b) 14
- (c) 18
- (d) 116

Q70. In a forward-biased diode, what happens to the depletion layer?

- (a) It widens
- (b) It narrows
- (c) It remains constant
- (d) It disappears

Q71. Which logic gate gives HIGH output only when all inputs are LOW?

- (a) AND
- (b) OR
- (c) NOR
- (d) NAND

Q72. What is the dimensional formula for G (Universal Gravitational Constant)?

- (a) $[MLT^{-2}]$
- (b) $[M^{-1}L^3T^{-2}]$
- (c) $[ML^2T^{-2}]$
- (d) $[M^0L^2T^{-2}]$

Q73. Where is kinetic energy maximum in Simple Harmonic Motion (SHM)?

- (a) At the mean position
- (b) At extreme points
- (c) Halfway between mean and extreme
- (d) It is constant throughout

Q74. What is the angle between two equal vectors if their resultant also has the same magnitude?

- (a) 60°
- (b) 90°
- (c) 120°
- (d) 180°

Q75. Which of the following defines an adiabatic process?

- (a) $\Delta T = 0$
- (b) $Q = 0$
- (c) $\Delta P = 0$
- (d) $\Delta V = 0$

SECTION 4 - ENGLISH

Q76. Identify the error in the following sentence:

"The chief nursing administrator, accompanied by several ward sisters, were responsible for the protocol."

- (a) The chief nursing administrator
- (b) accompanied by
- (c) were responsible
- (d) for the protocol

Q77. Choose the correct improvement for the underlined part:

"Had the team detected the anomalies, they would proceed with the trial."

- (a) Will proceed
- (b) Would have proceeded
- (c) Could proceed
- (d) Proceeded

Q78. What is the meaning of the idiom "burn the midnight oil"?

- (a) To waste time
- (b) To work late into the night
- (c) To be extremely angry
- (d) To save money

Q79. Identify the error in the following sentence:

"No sooner had the doctor entered the ward when the monitor alarmed."

- (a) No sooner
- (b) Had
- (c) When
- (d) Alarmed

Q80. Find the synonym for the word "Lucid":

- (a) Clear
- (b) Dark
- (c) Fast
- (d) Dull

Q81. Choose the grammatically correct sentence:

- (a) She found it to be not only highly effective but also it was safe.

- (b) She found it to be not only highly effective but also safe.
- (c) She found it to be highly effective but also it was safe.
- (d) She found it to be only highly effective but safe.

Q82. Find the antonym for the word “Complacent”:

- (a) Content
- (b) Dissatisfied
- (c) Happy
- (d) Proud

Q83. Identify the error in the following sentence:

“The results of the second trial were more preferable than those of the first.”

- (a) More
- (b) Preferable
- (c) Than
- (d) Results

Q84. What is the correct spelling for a long-term disease or ailment?

- (a) Chronik
- (b) Chronic
- (c) Cronik
- (d) Chronick

Q85. Convert the sentence to passive voice:

“The surgeon performed the operation under anesthesia.”

- (a) The operation was performed by the surgeon under anesthesia.
- (b) The operation is performed by the surgeon under anesthesia.
- (c) The operation has been performed by the surgeon.
- (d) The operation will be performed by the surgeon.

SECTION 5 - GENERAL KNOWLEDGE

- Q86. Which country has the highest number of Nobel Prize laureates as of 2025?
- (a) United Kingdom
 - (b) Germany
 - (c) United States
 - (d) France
- Q87. The “Great Barrier Reef” is located along the coast of which country?
- (a) New Zealand
 - (b) Australia
 - (c) Indonesia
 - (d) Philippines
- Q88. Which atmospheric layer contains the ozone layer that protects us from UV radiation?
- (a) Troposphere
 - (b) Stratosphere
 - (c) Mesosphere
 - (d) Ionosphere
- Q89. Who was the first woman to be appointed as the Chief Justice of a High Court in India?
- (a) Leila Seth
 - (b) Fathima Beevi
 - (c) Anna Chandy
 - (d) Ruma Pal
- Q90. The “Statue of Unity” is dedicated to which Indian leader?
- (a) Mahatma Gandhi
 - (b) Sardar Vallabhbhai Patel
 - (c) Subhash Chandra Bose
 - (d) Jawaharlal Nehru
- Q91. Which planet is known as the “Red Planet”?
- (a) Venus
 - (b) Jupiter
 - (c) Mars
 - (d) Saturn

Q92. The headquarters of the World Health Organization (WHO) is located in:

- (a) New York
- (b) Geneva
- (c) Paris
- (d) Washington D.C.

Q93. Which article of the Indian Constitution deals with the “Abolition of Untouchability”?

- (a) Article 14
- (b) Article 17
- (c) Article 21
- (d) Article 32

Q94. The “Green Revolution” in India is primarily associated with which person?

- (a) Verghese Kurien
- (b) M.S. Swaminathan
- (c) Norman Borlaug
- (d) Homi Bhabha

Q95. Which is the largest hot desert in the world?

- (a) Sahara
- (b) Gobi
- (c) Kalahari
- (d) Thar

Q96. In which year did the Indian National Congress pass the “Purna Swaraj” resolution?

- (a) 1928
- (b) 1929
- (c) 1930
- (d) 1931

Q97. The “Bhakra Nangal Dam” is built on which river?

- (a) Sutlej
- (b) Chenab
- (c) Ravi
- (d) Beas

Q98. Which element is the most abundant in the Earth’s crust?

- (a) Iron
- (b) Silicon
- (c) Oxygen
- (d) Aluminum

Q99. The “Right to Information” (RTI) Act was enacted in which year?

- (a) 2002
- (b) 2005
- (c) 2008
- (d) 2010

Q100. Who is the current Comptroller and Auditor General (CAG) of India?

- (a) G.C. Murmu
- (b) Rajiv Mehrishi
- (c) Shashi Kant Sharma
- (d) Vinod Rai

SOLUTIONS

Q1. Correct Answer: (C)

The:

Vagusnerve(CranialNerveX)

controls heart rate and digestive functions.

Q2. Correct Answer: (B)

The structural and functional unit of the kidney is:

Nephron

Q3. Correct Answer: (B)

Parietalcells

secrete intrinsic factor necessary for Vitamin B_{12} absorption.

Q4. Correct Answer: (C)

Down syndrome is caused by:

Trisomy21

Q5. Correct Answer: (B)

Milk ejection is stimulated by:

Oxytocin

Q6. Correct Answer: (B)

The fluid between cornea and lens is:

Aqueoushumor

Q7. Correct Answer: (B)

The liver converts toxic ammonia into:

Urea

Q8. Correct Answer: (B)

The:

Pulmonaryartery

carries deoxygenated blood to the lungs.

Q9. Correct Answer: (C)

Vitamin K is required for synthesis of:

Prothrombin

Q10. Correct Answer: (A)

The:

Epidermis

does not contain blood vessels.

Q11. Correct Answer: (C)

Glycolysis occurs in the:

Cytoplasm

Q12. Correct Answer: (C)

Gas exchange occurs in the:

Alveoli

Q13. Correct Answer: (B)

Absciscicacid

inhibits plant growth during drought stress.

Q14. Correct Answer: (A)

HIV mainly attacks:

CD4 + T - cells

Q15. Correct Answer: (C)

The:

Ballandsocketjoint

permits maximum movement and rotation.

Q16. Correct Answer: (A)

The Moro reflex is normally present in:

Newborns

Q17. Correct Answer: (B)

Starch digestion in the mouth begins with:

Amylase

Q18. Correct Answer: (B)

A:

Ligament

connects bone to bone.

Q19. Correct Answer: (B)

Pulmonary surfactant helps by:

Reducing surface tension

inside alveoli.

Q20. Correct Answer: (B)

Kala-azar is transmitted by:

Sandfly

Q21. Correct Answer: (B)

The:

Mitochondria

are called the powerhouse of the cell.

Q22. Correct Answer: (B)

Body equilibrium is controlled by the:

Cerebellum

Q23. Correct Answer: (B)

Gout occurs due to deposition of:

Uric acid crystals

Q24. Correct Answer: (B)

The:

Mitral valve

prevents backflow into the left atrium.

Q25. Correct Answer: (B)

The synthesis of mRNA from DNA is called:

Transcription

Q26. Correct Answer: (C)

The hybridization of sulfur in:

SF_6

is:



Q27. Correct Answer: (D)

Real gases behave most ideally at:

Low pressure and high temperature

Q28. Correct Answer: (C)

The conjugate base of:



is:



Q29. Correct Answer: (A)

For spontaneity at all temperatures:

$$\Delta G = \Delta H - T\Delta S$$

must always be negative, therefore:

$$\Delta H < 0, \quad \Delta S > 0$$

Q30. Correct Answer: (C)

For a second-order reaction, rate constant units are:

$$L\ mol^{-1}\ s^{-1}$$

Q31. Correct Answer: (B)

The compound:



has:

3

structural isomers.

Q32. Correct Answer: (B)

Lucas reagent

distinguishes primary, secondary, and tertiary alcohols.

Q33. Correct Answer: (B)

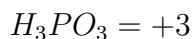
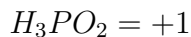
The:

Schottky defect

reduces density because ions are missing from the lattice.

Q34. Correct Answer: (A)

Oxidation states of phosphorus are:



Q35. Correct Answer: (C)

The:



group is strongly deactivating and meta-directing.

Q36. Correct Answer: (A)

Clemmensen reduction uses:



Q37. Correct Answer: (C)

Half-life of a first-order reaction:

$$t_{1/2} = \frac{0.693}{k}$$

is independent of concentration.

Q38. Correct Answer: (B)



shows metallic conductivity.

Q39. Correct Answer: (B)

The correct IUPAC name is:



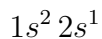
Q40. Correct Answer: (A)

Reverse osmosis is commonly used to purify:



Q41. Correct Answer: (A)

The configuration:



has the highest second ionization enthalpy because removal after first ionization breaks a noble gas configuration.

Q42. Correct Answer: (B)

An:



reaction proceeds with:

Inversion of configuration

Q43. Correct Answer: (B)

In:



plants, the primary:



acceptor is:



Q44. Correct Answer: (A)

The Hardy-Schulze rule explains:

Coagulation of colloids

Q45. Correct Answer: (C)

During electrolysis of:



solution,:



is deposited at the cathode.

Q46. Correct Answer: (B)

The species:



has bond order:

0

Q47. Correct Answer: (A)

Tetracyanoethylene contains:

9 σ bonds and 9 π bonds

Q48. Correct Answer: (B)

Sucrose is a:

Disaccharide

Q49. Correct Answer: (A)

Permanent displacement of:

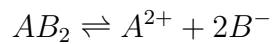
σ

electrons is called:

Inductive effect

Q50. Correct Answer: (A)

For:



$$K_{sp} = [A][B]^2$$

Q51. Correct Answer: (C)

After:

2.5

revolutions on a circle, the body reaches the diametrically opposite point.

Therefore displacement:

$$= 2R$$

Q52. Correct Answer: (A)

Passengers fall forward due to:

Newton's First Law of Motion

(inertia).

Q53. Correct Answer: (A)

Kinetic energy:

$$K = \frac{p^2}{2m}$$

If kinetic energy increases by:

300%

then:

$$K_{new} = 4K$$

Hence momentum becomes:

$$p_{new} = 2p$$

So momentum increases by:

100%

Q54. Correct Answer: (B)

Escape velocity from Earth is:

$$11.2 \text{ km/s}$$

Q55. Correct Answer: (A)

Hooke's Law states:

$$\text{Stress} \propto \text{Strain}$$

Q56. Correct Answer: (B)

Small insects walk on water because of:

$$\text{Surface tension}$$

Q57. Correct Answer: (A)

Efficiency of a Carnot heat engine:

$$\eta = 1 - \frac{T_2}{T_1}$$

Q58. Correct Answer: (B)

When the source moves away, observed frequency:

$$\text{Decreases}$$

Q59. Correct Answer: (B)

With dielectric constant:

$$K = 4$$

Coulomb force becomes:

$$F' = \frac{F}{4}$$

Q60. Correct Answer: (C)

Resistance:

$$R = \rho \frac{L}{A}$$

Doubling length reduces area by half, therefore:

$$R' = 4R$$

Q61. Correct Answer: (B)

A:

$$\text{Potentiometer}$$

measures EMF without drawing current.

Q62. Correct Answer: (B)

A charged particle moving perpendicular to a magnetic field follows:

Circular motion

Q63. Correct Answer: (B)

Transformer cores are laminated to reduce:

Eddy current losses

Q64. Correct Answer: (D)

Among EM waves,:

Gamma rays

have the highest frequency.

Q65. Correct Answer: (A)

An object at the focal point of a convex lens forms image at:

Infinity

Q66. Correct Answer: (B)

Fringe width:

$$\beta = \frac{\lambda D}{d}$$

In water wavelength decreases, so fringe width:

Decreases

Q67. Correct Answer: (A)

Threshold frequency is related to the:

Photoelectric effect

Q68. Correct Answer: (B)

In Bohr's model:

$$r_n \propto n^2$$

Q69. Correct Answer: (C)

After:

$$30 \text{ days} = 3 \text{ half-lives}$$

Remaining fraction:

$$\left(\frac{1}{2}\right)^3 = \frac{1}{8}$$

Q70. Correct Answer: (B)

In forward bias, the depletion layer:

Narrows

Q71. Correct Answer: (C)

A:

NORgate

gives HIGH output only when all inputs are LOW.

Q72. Correct Answer: (B)

Dimensional formula of:

G

is:

$$[M^{-1}L^3T^{-2}]$$

Q73. Correct Answer: (A)

In SHM, kinetic energy is maximum at:

Meanposition

Q74. Correct Answer: (A)

For two equal vectors:

$$R^2 = A^2 + A^2 + 2A^2 \cos \theta$$

Given:

$$R = A$$

$$A^2 = 2A^2(1 + \cos \theta)$$

$$\cos \theta = -\frac{1}{2}$$

$$\theta = 120^\circ$$

Q75. Correct Answer: (B)

In an adiabatic process:

$$Q = 0$$

No heat is exchanged with surroundings.

Q76. Correct Answer: (C)

The subject:

Thechiefnursingadministrator

is singular, so the verb should be:

wasresponsible

Q77. Correct Answer: (B)

Correct sentence:

Hadtheteamdetectedtheanomalies,theywouldhaveproceededwiththetrial.

Q78. Correct Answer: (B)

“Burn the midnight oil” means:

Toworklateintothenight

Q79. Correct Answer: (C)

The correct expression is:

Nosooner...than

not:

Nosooner...when

Q80. Correct Answer: (A)

The synonym of:

Lucid

is:

Clear

Q81. Correct Answer: (B)

Correct parallel structure:

notonlyhighlyeffectivebutalsosafe

Q82. Correct Answer: (B)

The antonym of:

Complacent

is:

Dissatisfied

Q83. Correct Answer: (A)

Preferable

already implies comparison, so:

morepreferable

is incorrect.

Q84. Correct Answer: (B)

Correct spelling:

Chronic

Q85. Correct Answer: (A)

Passive voice:

Theoperationwasperformedbythesurgeonunderanesthesia.

Q86. Correct Answer: (C)

The:

UnitedStates

has the highest number of Nobel Prize laureates.

Q87. Correct Answer: (B)

The:

GreatBarrierReef

is located along the coast of:

Australia

Q88. Correct Answer: (B)

The ozone layer is found in the:

Stratosphere

Q89. Correct Answer: (A)

LeilaSeth

was the first woman Chief Justice of a High Court in India.

Q90. Correct Answer: (B)

The:

StatueofUnity

is dedicated to:

SardarVallabhbhaiPatel

Q91. Correct Answer: (C)

The:

RedPlanet

is:

Mars

Q92. Correct Answer: (B)

WHO headquarters is located in:

Geneva, Switzerland

Q93. Correct Answer: (B)

Article:

17

of the Indian Constitution abolishes untouchability.

Q94. Correct Answer: (B)

The Green Revolution in India is mainly associated with:

M.S.Swaminathan

Q95. Correct Answer: (A)

The world's largest hot desert is:

SaharaDesert

Q96. Correct Answer: (B)

The:

PurnaSwarajResolution

was passed in:

1929

Q97. Correct Answer: (A)

Bhakra Nangal Dam is built on the:

SutlejRiver

Q98. Correct Answer: (C)

The most abundant element in Earth's crust is:

Oxygen

Q99. Correct Answer: (B)

The:

Right to Information Act

was enacted in:

2005

Q100. Correct Answer: (A)

The current Comptroller and Auditor General (CAG) of India is:

G.C.Murmu

prepp
Your Personal Exam Guide