

Admit Card Serial No. _____

Admission Entry Test
BS Nursing Program

Total Marks: 100

Time: 90 minutes

Student's Name: _____

Contact No.: _____

Current Address: _____

Qualification: _____

Signature of the Student: _____

Part I: Biology

Total Question: 20
Time Allowed: 19 Min.

Part II: Physics

Total Question: 20
Time Allowed: 19 Min.

Part III: Chemistry

Total Question: 20
Time Allowed: 19 Min.

Part IV: English

Total Question: 20
Time Allowed: 15 Min.

Part V: Analytical Reasoning

Total Question: 10
Time Allowed: 08 Min.

Part VI: Essay Writing

Total Question: 01
Time Allowed: 10 Min.

Part I: Biology

1. Which of the following is NOT a component of the central nervous system?
 - a. Brain
 - b. Spinal cord
 - c. Peripheral nerves
 - d. Cranial nerves
2. What is the primary function of the nephron in the kidney?
 - a. Regulation of blood pressure
 - b. Filtration of blood
 - c. Production of urine
 - d. Secretion of hormones
3. What is the process by which DNA is copied into mRNA called?
 - a. Translation
 - b. Replication
 - c. Transcription
 - d. Transformation
4. Which of the following is not a component of the human digestive system?
 - a. Heart
 - b. Stomach
 - c. Liver
 - d. Small intestine
5. What is the main function of the stomata in plant leaves?
 - a. Gas exchange
 - b. Absorption of water
 - c. Photosynthesis
 - d. Transpiration
6. In which stage of cellular respiration does glucose breakdown occur?
 - a. Krebs cycle
 - b. Electron transport chain
 - c. Glycolysis
 - d. Fermentation
7. What is the name of the process by which plants convert light energy into chemical energy?
 - a. Respiration
 - b. Fermentation
 - c. Transpiration
 - d. Photosynthesis
8. Which hormone is responsible for the development of secondary sexual characteristics in males?
 - a. Testosterone
 - b. Estrogen
 - c. Progesterone
 - d. Prolactin
9. In which stage of embryonic development does the neural tube form?
 - a. Gastrulation
 - b. Neurulation
 - c. Cleavage
 - d. Implantation
10. Which of the following is NOT a characteristic of viruses?
 - a. Presence of genetic material
 - b. Ability to reproduce outside a host cell
 - c. Dependence on a host cell for replication
 - d. Lack of cellular structure
11. In which organelle does cellular respiration primarily occur?
 - a. Golgi apparatus
 - b. Mitochondria
 - c. Endoplasmic reticulum
 - d. Nucleus
12. What is the process by which plants lose water vapor through small pores in their leaves called?
 - a. Respiration
 - b. Osmosis
 - c. Transpiration
 - d. Diffusion
13. What is the main function of the cerebrum in the brain?
 - a. Regulation of involuntary functions

- b. Processing sensory information
 - c. Coordination of movement
 - d. Regulation of body temperature
14. What is the process by which plants bend toward light called?
- a. Phototropism
 - b. Gravitropism
 - c. Thigmotropism
 - d. Hydrotropism
15. What is the role of insulin in the human body?
- a. Digestion of carbohydrates
 - b. Production of bile
 - c. Regulation of blood sugar levels
 - d. Transport of oxygen
16. What is the function of the hypothalamus in the brain?
- a. Regulation of body temperature
 - b. Control of hunger and thirst
 - c. Coordination of movement
 - d. Processing visual information
17. Which of the following is the primary component of cell membranes?
- a. Proteins
 - b. Carbohydrates
 - c. Nucleic acids
 - d. Lipids
18. What is the name of the process by which DNA is copied into mRNA?
- a. Transcription
 - b. Translation
 - c. Replication
 - d. Transformation
19. Which hormone is responsible for stimulating ovulation in females?
- a. Estrogen
 - b. Luteinizing hormone (LH)
 - c. Progesterone
 - d. Follicle-stimulating hormone (FSH)
20. Which endocrine gland is often referred to as the "master gland" because it regulates the functions of other endocrine glands?
- a. Thyroid gland
 - b. Pituitary gland
 - c. Adrenal gland
 - d. Pancreas
- Part II: Physics**
1. What is the SI unit of force?
- a. Pascal
 - b. Joule
 - c. Newton
 - d. Watt
2. Which of the following quantities is a vector?
- a. Displacement
 - b. Energy
 - c. Mass
 - d. Both a and c
3. The rate of change of velocity is known as:
- a. Acceleration
 - b. Speed
 - c. Displacement
 - d. Force
4. Newton's third law states:
- a. An object in motion stays in motion
 - b. Every action has an equal and opposite reaction
 - c. Force equals mass times acceleration
 - d. Energy cannot be created or destroyed
5. Who proposed the theory of relativity?
- a. Albert Einstein
 - b. Isaac Newton
 - c. Galileo Galilei
 - d. Niels Bohr

6. The phenomenon of splitting white light into its component colors is called:
 - a. Reflection
 - b. Refraction
 - c. Diffraction
 - d. Dispersion
7. The force of gravity on an object is also known as its:
 - a. Mass
 - b. Weight
 - c. Density
 - d. Volume
8. The law of inertia is also known as:
 - a. Newton's First Law
 - b. Newton's Second Law
 - c. Newton's Third Law
 - d. Law of Conservation of Energy
9. The unit of electric current is:
 - a. Ampere
 - b. Watt
 - c. Ohm
 - d. Volt
10. Which of the following is a renewable source of energy?
 - a. Coal
 - b. Solar
 - c. Oil
 - d. Natural Gas
11. Which law states that the current through a conductor between two points is directly proportional to the voltage across the two points?
 - a. Newton's First Law
 - b. Ohm's Law
 - c. Coulomb's Law
 - d. Faraday's Law
12. What is the speed of light in a vacuum?
 - a. $3 \times 10^8 \times 10^8 \text{ m/s}$
 - b. $3 \times 10^6 \times 10^6 \text{ m/s}$
 - c. $3 \times 10^4 \times 10^4 \text{ m/s}$
 - d. $3 \times 10^2 \times 10^2 \text{ m/s}$
13. Which device is used to measure electric current?
 - a. Ammeter
 - b. Voltmeter
 - c. Ohmmeter
 - d. Thermometer
14. What is the unit of frequency?
 - a. Joule
 - b. Newton
 - c. Hertz
 - d. Pascal
15. The bending of a wave around the edges of an obstacle is called:
 - a. Reflection
 - b. Diffraction
 - c. Refraction
 - d. Absorption
16. Which of the following particles is negatively charged?
 - a. Electron
 - b. Neutron
 - c. Proton
 - d. Positron
17. The momentum of an object is the product of its:
 - a. Mass and velocity
 - b. Mass and acceleration
 - c. Force and time
 - d. Force and displacement
18. What is the effect of doubling the mass of an object on its gravitational potential energy?
 - a. It doubles
 - b. It halves
 - c. It quadruples
 - d. It remains the same
19. The power of a lens is measured in:
 - a. Dioptres
 - b. Meters
 - c. Hertz
 - d. Watts
20. The resistance of a conductor depends on:
 - a. Length
 - b. Cross-sectional area
 - c. Material
 - d. All of the above

Part III: Chemistry

1. What is the shape of an ammonia (NH_3) molecule?
 - a. Trigonal pyramidal
 - b. Linear
 - c. Bent
 - d. Trigonal planar
2. Which of the following is not a colligative property?
 - a. Boiling point elevation
 - b. Density
 - c. Osmotic pressure
 - d. Freezing point depression
3. What is the hybridization of carbon in ethene (C_2H_4)?
 - a. sp
 - b. sp^2
 - c. sp^3
 - d. dsp^3
4. Which of the following represents an exothermic reaction?
 - a. Melting of ice
 - b. Combustion of methane
 - c. Evaporation of water
 - d. Sublimation of dry ice
5. What is the coordination number of a central metal atom in a complex with the formula $[\text{Cu}(\text{NH}_3)_4]^{2+}$?
 - a. 2
 - b. 8
 - c. 6
 - d. 4
6. Which law states that the total pressure exerted by a mixture of non-reacting gases is equal to the sum of the partial pressures of individual gases?
 - a. Dalton's law
 - b. Charles's law
 - c. Boyle's law
 - d. Avogadro's law
7. Which of the following is a Lewis acid?
 - a. BF_3
 - b. H_2O
 - c. NH_3
 - d. CH_4
8. What is the product of the reaction between an acid and a base?
 - a. Salt and water
 - b. Water and hydrogen
 - c. Salt and hydrogen
 - d. Acid and salt
9. Which of the following compounds has the highest boiling point?
 - a. C_4H_{10}
 - b. C_2H_6
 - c. C_3H_8
 - d. CH_4
10. What is the term for the energy required to remove an electron from an atom in the gas phase?
 - a. Ionization energy
 - b. Electron affinity
 - c. Electronegativity
 - d. Lattice energy
11. What is the pH of a 0.01 M HCl solution?
 - a. 1
 - b. 3
 - c. 2
 - d. 4
12. Which of the following is a characteristic of an ideal gas?
 - a. No intermolecular forces
 - b. High density
 - c. High pressure
 - d. High intermolecular forces
13. Which of the following is an example of a state function?
 - a. Work
 - b. Internal energy
 - c. Heat
 - d. Distance
14. Which type of isomerism exists between 1-butanol and 2-butanol?
 - a. Structural isomerism
 - b. Geometric isomerism
 - c. Optical isomerism
 - d. Conformational isomerism

15. Which reagent is used to test for the presence of a phenol group?
- Ferric chloride
 - Fehling's solution
 - Bromine water
 - Tollen's reagent
16. What is the general formula for alkanes?
- C_nH_{2n}
 - C_nH_{2n-2}
 - C_nH_{2n+2}
 - C_nH_{2n+1}
17. Which of the following is the correct order of increasing bond strength?
- Double bond < Single bond < Triple bond
 - Triple bond < Double bond < Single bond
 - Single bond < Double bond < Triple bond
 - Single bond < Triple bond < Double bond
18. Which of the following undergoes nucleophilic substitution reaction?
- Alkanes
 - Alkenes
 - Haloalkanes
 - Alkynes
19. What is the molecular geometry of carbon dioxide (CO_2)?
- Linear
 - Bent
 - Trigonal planar
 - Tetrahedral
20. Which of the following is an example of a homogeneous catalyst?
- Enzyme in biological reactions
 - Iron in the Haber process
 - Platinum in hydrogenation
 - Sulfuric acid in esterification

Part IV: English

1. Select the sentence with the correct use of the passive voice:
- She makes delicious cakes for the party.
 - The letter was written by her yesterday.
 - They will finish the project by tomorrow.
 - The ball was kicked by him into the goal.
2. Identify the sentence with the correct use of the conditional mood:
- If he was here, he will help us.
 - She would come if she was feeling better.
 - If it rains tomorrow, we will cancel the picnic.
 - I would have gone to the party if I knew you were going.
3. Identify the sentence with the correct use of the parallel structure:
- She likes swimming, to run, and play tennis.
 - She likes to sing, dance, and act in plays
 - They enjoy both hiking and reading books.
 - He is not only a great musician but also a talented painter.
4. Identify the sentence with the correct use of the conjunction:
- He will not come unless you don't invite him.
 - She wanted to go swimming but she had to study.
 - She went to the store and bought some groceries.
 - I didn't go to the party for I was tired.
5. Which sentence demonstrates the correct use of the possessive pronoun?
- Her's bag is on the table.

- b. The book is hers; she lent it to me.
 - c. Our planning to leave early.
 - d. Their going to the movies tonight.
6. Which sentence uses the correct past perfect tense?
- a. They have arrived before the show started.
 - b. I had completed the assignment before the deadline.
 - c. He have finished his work already.
 - d. She had eaten dinner when the guests arrived.
7. What is the present participle form of the verb "to run"?
- a. run
 - b. running
 - c. runs
 - d. ran
8. Choose the sentence with the correct use of the preposition:
- a. She is waiting on the bus stop.
 - b. The book is on the shelf.
 - c. The cat is under the table.
 - d. He jumped off from the cliff.
9. Identify the sentence with the correct use of the article:
- a. Cows give milk
 - b. Cow gives milk.
 - c. The cow gives a milk.
 - d. A cow gives milk.
10. Which sentence uses the correct past participle form of the verb "to eat"?
- a. He have eaten lunch already.
 - b. We have eaten at that restaurant before.
 - c. They had ate pizza last night.
 - d. She has ate her dinner.
11. Which sentence is grammatically correct?
- a. She was studying all night.
 - b. They has already left.
 - c. He have eaten breakfast.
 - d. She were studying all night.
12. Choose the correct and appropriate option:
- a. When he joined this club?
 - b. When did he joins this club?
 - c. When did he join this club?
 - d. When did he joined this club?
13. Choose the correct and appropriate option:
- a. He is so naive to cheat anyone.
 - b. He is too naive that he cannot cheat anyone.
 - c. He is naive enough that he cannot cheat anyone.
 - d. He is too naive to cheat anyone.
14. Choose the correct and appropriate option:
- a. We respect him as our older brother.
 - b. We respect him for our older brother.
 - c. We respect him as our elder brother.
 - d. We respect him for our elder brother.
15. Choose the correct and appropriate option:
- a. I will call you before I arrive.
 - b. I will call you until I arrive.
 - c. I will call you since I arrive.
 - d. I will call you when I arrive.
16. What is the synonym of "ameliorate"?
- a. Worsen
 - b. Degrade
 - c. Aggravate
 - d. Improve
17. Which word is an antonym of "deleterious"?
- a. Harmful
 - b. Detrimental

- c. Damaging
 - d. Beneficial
18. What is the synonym of "ubiquitous"?
- a. Scarce
 - b. Pervasive
 - c. Rare
 - d. Limited
19. Identify the pair of words with the closest semantic relationship:
- a. Serene – Calm
 - b. Enigma – Puzzle
 - c. Ephemeral – Permanent
 - d. Exacerbate - Relieve
20. Identify the pair of words that are both adjectives:
- a. Green - Red
 - b. Run – Walk
 - c. Dog – Cat
 - d. Jump – Skip

Part V: Analytical Reasoning

1. Statement: "Social media platforms have a responsibility to regulate hate speech."
Argument: "Allowing hate speech to proliferate on social media platforms contributes to real-world violence and discrimination."
 - a. Partially true
 - b. Partially false
 - c. True
 - d. False
2. Statement: "Government surveillance is necessary for national security."
Argument: "Mass surveillance infringes upon individuals' privacy rights and can lead to abuses of power by authorities."
 - a. True
 - b. False
3. Statement: "The sum of the angles in a triangle is always 180 degrees."
Argument: "Since one angle in a triangle is 90 degrees, the other two angles must be 90 degrees combined."
 - a. True
 - a. False
 - b. Partially true
 - c. Partially false
4. Statement 1: A new law was passed to increase the penalties for drunk driving.
Statement 2: The number of drunk driving accidents has decreased significantly in the past year.
 - a. Statement 1 is the cause and statement 2 is its effect
 - b. Statement 2 is the cause and statement 1 is its effect
 - c. Both the statements 1 and 2 are independent causes
 - d. Both the statements 1 and 2 are effects of independent causes
5. Statement: "The product of two negative numbers is positive."
Assumption: "Negative numbers follow the rules of multiplication."
 - a. Plausible
 - b. True
 - c. False
 - d. Not known
6. Statement 1: A new fitness program was introduced at the company.
Statement 2: The number of sick days taken by employees has decreased.
 - a. Statement 1 is the cause and statement 2 is its effect

- b. Statement 2 is the cause and statement 1 is its effect
 - c. Both the statements 1 and 2 are independent causes
 - d. Both the statements 1 and 2 are effects of independent causes
7. Complete the analogy: Cold is to freezer as hot is to _____.
- a. Oven
 - b. Stove
 - c. Sun
 - d. Fire
8. What letter comes next in the series? A, C, F, J, _____.
- a. O
 - b. M
 - c. L
 - d. P
9. Complete the analogy: Marathon is to race as novel is to _____.
- a. Author
 - b. Book
 - c. Publisher
 - d. Library
10. Identify the pattern and complete the series: 3, 8, 15, 24, _____.
- a. 34
 - b. 35
 - c. 36
 - d. 38

SAMPLE TEST

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