Answer the following questions by placing the BEST response in the space provided:

1.) **Cholinesterase** is the enzyme that breaks down acetylcholine.

2.) **Acetylcholine** is the primary neurotransmitter of both the somatic and parasympathetic nervous system. It functions to stimulate skeletal muscles, but inhibits cardiac muscles. It exhibits both excitatory and inhibitory effects.

3.) **Noradrenaline** is the primary Neurotransmitter of the Sympathetic Nervous system. It exhibits excitatory effects and is also called norepinephrine.

4.) **Glutamate** is the Neurotransmitter that accounts for 75% of all excitatory transmissions in the brain.

5.) **GABA** is the major and most commonly found inhibitory neurotransmitter in the brain.

6.) **Dopamine** is an excitatory neurotransmitter known to elevate mood and control skeletal muscles.

7.) **Parkinson’s Disease** is an illness caused by insufficient dopamine producing cells.

8.) **Schizophrenia** is a condition caused by the excessive amount of Dopamine levels in the brain.

9.) **Serotonin** is an excitatory neurotransmitter that affects an individual’s emotional state, level of alertness, feeling of sleepiness and thermoregulation.

10.) **Rods** are parts of the eye that function to help us see black and white shades of grey.

11.) **Myopia** is the disorder in which the eye ball is too long and focuses light ahead of the retina.

12.) **Cataract** is a condition characterized by a cloudiness or opaque area in the lens that can eventually lead to blindness.
13.) The **Cornea** is the part of the eye that is composed of transparent tissue covering the front of the eye.

14.) The **Eustachian Tube** connects the middle ear cavity with the vestibular apparatus.

15.) **White Matter** is the whitish nerve tissue of the brain and spinal cord, consisting mostly of myelinated nerve fibers.

16.) The **Autonomic Nervous System** is the part of the nervous system that relays information to the internal organs that are not under the conscious control of the individual. This system is made up of the sympathetic and parasympathetic nervous system.

17.) The **Cerebellum** is the part of the brain that controls muscle co-ordination.

18.) The **Cerebral Cortex** is the thin layer of grey matter that covers each hemisphere of the brain, allowing a person to experience sensation, have the ability to think and perform voluntary movements.

19.) The **Thalamus** is the sensory relay center of the brain that governs the flow of information from all other parts of the nervous system.

20.) The **Tympanic Membrane** or commonly known as the eardrum, is a membrane of thin and fibrous tissue that vibrates in response to sound waves, located between the outer ear and middle ear.

21.) The **Hypothalamus** is the part of the brain that acts as the main control centre for the autonomic nervous system and functions to establish homeostasis.

22.) A **Neuron** is known as a nerve cell. They do not divide to reproduce and can survive over a 100 years.

23.) **Hyperopia** is the visual impairment resulting from to short of an eye ball, causing the light to be focused too far behind the retina.

24.) **Node of Ranvier** is the gap between Schwann cells around the axon of a nerve cell. Nerve impulses “jump” across this gap.

25.) **Neurotransmitters** are the class of chemicals that are secreted by neurons to stimulate motor neurons and central nervous system neurons.

26.) A **Nerve** is made up of many neurons connected together forming the message pathway of the nervous system.

27.) **Schwann Cells** are the insulating cells around the axon of a nerve cell.

28.) **Myelin Sheath** is the fatty layer around the axon of a nerve cell composed of Schwann cells, aiding in the transmission of nerve impulses.
29.) Alzheimer’s Disease is a degenerative disorder believed to be caused by deposits of the protein amyloid leading to the impairment of the brain’s intellectual functions such as memory and orientation.

30.) Axon is the long cylindrical extension of a neuron’s cell body that ranges from 1mm to 1m in length. It is responsible for transmitting impulses along its length to the next neuron.

31.) Fovea Centralis is the concentration of cones on the retina located directly behind the centre of lens in the human eye.

32.) The three bones in the human ear listed in order from the outer ear to the inner ear are; Malleus, Incus and Stapes. These bones together are called the Ossicles.

33.) Astigmatism is the abnormality in the shape of the cornea or lens that results in uneven focus in the human eye.

34.) The Central Nervous System consists of the brain and spinal cord.

35.) The Auditory Canal is the part of the ear through which sound waves initially travel through before hitting the tympanic membrane.

36.) The Cerebrum is the largest part of the brain, where all information from the different sense organs is sorted and interpreted. It is also the part of the brain where memories are stored and decisions are made.

37.) The Pupil is the aperture in the middle of the iris of the eye. The size of this structure can be adjusted to control the amount of light that enters the eye.

38.) Dendrites are the primary sites on a nerve cell for receiving signals from other neurons.

39.) Cones are a component of the eye that act as color receptors.

40.) The Choroid Layer is the middle layer of the eye, which absorbs light and prevents internal reflection. It also forms the iris at the front of the eye.

41.) The Sclera is the white outer layer that gives the eye its shape.

42.) The Synapse is a gap junction between a neuron and another neuron or muscle where neurotransmitters are released to cause either an inhibitory or excitatory effects.

43.) The Cochlea is part of the inner ear resembling the snail shell like shape which is involved in hearing.

44.) The Conjunctiva is the thin transparent membrane that covers the cornea and is moistened by tears.
45.) **Grey Matter** is the brownish-grey nerve tissue consisting mainly of nerve cell bodies within the brain and spinal cord.

46.) The **Iris** is the muscle component of the eye that adjusts the pupil to regulate the amount of light that enters the eye. The color of this component varies amongst individuals.

47.) **Multiple Sclerosis** is a serious disease of the central nervous system in which the myelin sheath of surrounding cells becomes inflamed or damaged, resulting in disrupted nerve impulses.

48.) The structure attached to the spinal cord at the base of the brain which is responsible for vomiting, coughing, hiccupping and swallowing functions is known as the **Medulla Oblongata**.

49.) The **Peripheral Nervous System** is composed of the nerves that enter and leave the brain and spinal cord. It includes both the autonomic and somatic nervous systems.

50.) **Meningitis** is a bacterial or viral infection of the meninges.

51.) The clear, flexible muscle in the human eye that adjusts the pupil to regulate the amount of light that enters the eye is known as the **Lens**.

52.) The innermost portion of the eye where light is focused is known as the **Retina**.

53.) The **Action Potential** is the change in charge that occurs when the gates of the potassium channels close and gates of the sodium channels open after a wave of depolarization is triggered.

54.) The layer of white matter made up of axons that joins the two hemispheres of the cerebral cortex of the brain is known as the **Corpus Callosum**.

55.) An **Inhibitory Response** results in the postsynaptic neuron becoming more negative on the inside to raise the threshold of the stimulus.

56.) The **Refractory Period** is the brief time between the firing of a neuron’s impulse and the axon’s readiness for the next impulse. During this time, the neuron cannot transmit an impulse.

57.) The **Resting Potential** is the difference in charge from the inside to the outside of a cell at rest, which approximately equals -70 mV.

58.) An **Excitatory Response** a process in which a wave of depolarization is generated to transmit the impulse to subsequent neurons.

59.) The **Parasympathetic Nervous System** counteracts the sympathetic nervous system to slow down heart rate respiration rates, as well as relax muscles.
60.) The **Postsynaptic Neuron** is the neuron that receives the stimulus.

61.) **Synaptic Vesicles** are vacuoles in the bulb like ends of axons which contain neurotransmitters that are released into the synapse.

62.) The neuron that carries the wave of depolarization towards the synapse is called the **Presynaptic Neuron**.

63.) The **Reflex Arc** is the nerve pathway that leads from a stimulus to a reflex action.

64.) **Semicircular Canals** are a component of the middle ear that are involved in balance and equilibrium.

65.) The **Somatic Nervous System** is the portion of the nervous system that relays information to and from skin and skeletal muscles that are under the conscious control of the individual.

66.) The network of nerves that controls involuntary muscle reactions and organs in times of stress is known as the **Sympathetic Nervous System**.

67.) A **Reflex** is a very quick, involuntary nerve and muscle reaction to an outside stimulus.

68.) **Viral** meningitis is less harmful when compared to **Bacterial** meningitis which is known to have more serious long term effects.

69.) **Computerized Tomography** scans take a series of cross-sectional X-rays to create a three dimensional image of the body part being examined.

❖ **Be Sure To Check Over Your Answers!!!**