

KISII UNIVERSITY

DEPARTMENT OF MEDICAL PHYSIOLOGY

END OF SECOND YEAR EXAMINATION TOWARDS THE DEGREE
OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY
(M.B.Ch.B) (2021/22)

MEDS 211: MEDICAL PHYSIOLOGY II (Paper 1)

DATE: September, 2022

TIME: 3HRS

Section A: Multiple Choice Questions (120 Marks)

1. Which of the following substances is released from neurons in the GI tract and produces smooth muscle relaxation?
 - (A) Secretin
 - (B) Gastrin
 - (C) Cholecystokinin
 - (D) Vasoactive intestinal peptide
2. Which of the following responses is mediated by parasympathetic muscarinic receptors?
 - (A) Dilation of bronchiolar smooth muscle
 - (B) Miosis
 - (C) Ejaculation
 - (D) Constriction of gastrointestinal (GI) sphincters
3. Cholecystokinin (CCK) has some gastrin-like properties because both CCK and gastrin
 - (A) are released from G cells in the stomach
 - (B) are released from I cells in the duodenum
 - (C) are members of the secretin-homologous family
 - (D) have five identical C-terminal amino acids
4. Which of the following is a property of C fibers?
 - (A) Have the slowest conduction velocity of any nerve fiber type
 - (B) Have the largest diameter of any nerve fiber type
 - (C) Are afferent nerves from muscle spindles
 - (D) Are afferent nerves from Golgi tendon organs
5. When compared with the cones of the retina, the rods
 - (A) are more sensitive to low-intensity light
 - (B) adapt to darkness before the cones
 - (C) are most highly concentrated on the fovea
 - (D) are primarily involved in color vision
6. Which of the following abolishes “receptive relaxation” of the stomach?
 - (A) Parasympathetic stimulation

- (B) Sympathetic stimulation
 - (C) Vagotomy
 - (D) Administration of gastrin
7. Which of the following statements best describes the basilar membrane of the organ of Corti?
- (A) The apex responds better to low frequencies than the base does
 - (B) The base is wider than the apex
 - (C) The base is more compliant than the apex
 - (D) High frequencies produce maximal displacement of the basilar membrane near the helicotrema
8. Which of the following is a feature of the sympathetic, but not the parasympathetic nervous system?
- (A) Ganglia located in the effector organs
 - (B) Preganglionic neurons release norepinephrine
 - (C) Preganglionic neurons release acetylcholine (ACh)
 - (D) Preganglionic neurons originate in the thoracolumbar spinal cord
9. Which of the following substances is secreted in response to an oral glucose load?
- (A) Secretin
 - (B) Gastrin
 - (C) Vasoactive intestinal peptide (VIP)
 - (D) Glucose-dependent insulintropic peptide (GIP)
10. Which autonomic receptor mediates an increase in heart rate?
- (A) Adrenergic α_1 receptors
 - (B) Adrenergic β_1 receptors
 - (C) Adrenergic β_2 receptors
 - (D) Cholinergic muscarinic receptors
11. Cutting which structure on the left side causes total blindness in the left eye?
- (A) Optic nerve
 - (B) Optic chiasm
 - (C) Optic tract
 - (D) Geniculocalcarine tract
12. Which reflex is responsible for monosynaptic excitation of ipsilateral homonymous muscle?
- (A) Stretch reflex (myotatic)
 - (B) Golgi tendon reflex (inverse myotatic)
 - (C) Flexor withdrawal reflex
 - (D) Subliminal occlusion reflex
13. Slow waves in small intestinal smooth muscle cells are
- (A) action potentials
 - (B) phasic contractions
 - (C) tonic contractions
 - (D) oscillating resting membrane potentials
14. Which type of cell in the visual cortex responds best to a moving bar of light?

- (A) Simple
 - (B) Complex
 - (C) Hypercomplex
 - (D) Bipolar
 - (E) Ganglion
15. Which adrenergic receptor produces its stimulatory effects by the formation of inositol 1,4,5-triphosphate (IP₃) and an increase in intracellular [Ca²⁺]?
(A) α₁ Receptors
(B) α₂ Receptors
(C) β₁ Receptors
(D) β₂ Receptors
16. Which of the following parts of the body has cortical motoneurons with the largest representation on the primary motor cortex (area 4)?
(A) Shoulder
(B) Ankle
(C) Fingers
(D) Elbow
17. Which of the following has a much lower concentration in the cerebrospinal fluid (CSF) than in cerebral capillary blood?
(A) Na⁺
(B) K⁺
(C) Osmolarity
(D) Protein
18. Which of the following is a step in photoreception in the rods?
(A) Light converts all-trans retinal to 11-cis retinal
(B) Metarhodopsin II activates transducin
(C) Cyclic guanosine monophosphate (cGMP) levels increase
(D) Rods depolarize
(E) Glutamate release increases
19. Pathogens that produce fever cause
(A) decreased production of interleukin-1 (IL-1)
(B) decreased set-point temperature in the hypothalamus
(C) shivering
(D) vasodilation of blood vessels in the skin
20. When a person moves from a supine position to a standing position, which of the following compensatory changes occurs?
(A) Decreased heart rate
(B) Increased contractility
(C) Decreased total peripheral resistance (TPR)
(D) Decreased cardiac output
21. Which of the following statements about the olfactory system is true?
(A) The receptor cells are neurons
(B) The receptor cells are sloughed off and are not replaced
(C) Axons of cranial nerve (CN) I are A-delta fibers

- (D) Axons from receptor cells synapse in the prepiriform cortex
22. If the ejection fraction increases, there will be a decrease in
- (A) cardiac output
 - (B) end-systolic volume
 - (C) heart rate
 - (D) pulse pressure
23. A lesion of the chorda tympani nerve would most likely result in
- (A) impaired olfactory function
 - (B) impaired vestibular function
 - (C) impaired auditory function
 - (D) impaired taste function
24. The tendency for edema to occur will be increased by
- (A) arteriolar constriction
 - (B) increased venous pressure
 - (C) increased plasma protein concentration
 - (D) muscular activity
25. Which of the following would produce maximum excitation of the hair cells in the right horizontal semicircular canal?
- (A) Hyperpolarization of the hair cells
 - (B) Bending the stereocilia away from the kinocilia
 - (C) Rapid ascent in an elevator
 - (D) Rotating the head to the right
26. Complete transection of the spinal cord at the level of T1 would most likely result in
- (A) temporary loss of stretch reflexes below the lesion
 - (B) temporary loss of conscious proprioception below the lesion
 - (C) permanent loss of voluntary control of movement above the lesion
 - (D) permanent loss of consciousness above the lesion
27. During exercise, total peripheral resistance (TPR) decreases because of the effect of
- (A) the sympathetic nervous system on splanchnic arterioles
 - (B) the parasympathetic nervous system on skeletal muscle arterioles
 - (C) local metabolites on skeletal muscle arterioles
 - (D) local metabolites on cerebral arterioles
28. Sensory receptor potentials
- (A) are action potentials
 - (B) always bring the membrane potential of a receptor cell toward threshold
 - (C) always bring the membrane potential of a receptor cell away from threshold
 - (D) are graded in size, depending on stimulus intensity
29. The greatest pressure decrease in the circulation occurs across the arterioles because
- (A) they have the greatest surface area

- (B) they have the greatest cross-sectional area
 - (C) the velocity of blood flow through them is the lowest
 - (D) they have the greatest resistance
30. Cutting which structure causes blindness in the temporal fields of the left and right eyes?
- (A) Optic nerve
 - (B) Optic chiasm
 - (C) Optic tract
 - (D) Geniculocalcarine tract
31. Which of the following structures has a primary function to coordinate rate, range, force, and direction of movement?
- (A) Primary motor cortex
 - (B) Premotor cortex and supplementary motor cortex
 - (C) Prefrontal cortex
 - (D) Cerebellum
32. Pulse pressure is
- (A) the highest pressure measured in the arteries
 - (B) the lowest pressure measured in the arteries
 - (C) measured only during diastole
 - (D) determined by stroke volume
33. Which reflex is responsible for polysynaptic excitation of contralateral 32. extensors?
- (A) Stretch reflex (myotatic)
 - (B) Golgi tendon reflex (inverse myotatic)
 - (C) Flexor withdrawal reflex
 - (D) Subliminal occlusion reflex
34. Muscle stretch leads to a direct increase in firing rate of which type of nerve?
- (A) α -Motoneurons
 - (B) γ -Motoneurons
 - (C) Group Ia fibers
 - (D) Group Ib fibers
35. In the sinoatrial (SA) node, phase 4 depolarization (pacemaker potential) is attributable to
- (A) an increase in K^+ conductance
 - (B) an increase in Na^+ conductance
 - (C) a decrease in Cl^- conductance
 - (D) a decrease in Ca^{2+} conductance
36. The reabsorption of filtered HCO_3^-
- (A) results in reabsorption of less than 50% of the filtered load when the plasma concentration of HCO_3^- is 24 mEq/L
 - (B) acidifies tubular fluid to a pH of 4.4
 - (C) is directly linked to excretion of H^+ as NH_4^+
 - (D) is inhibited by decreases in arterial PCO_2
37. In which vascular bed does hypoxia cause vasoconstriction?

- (A) Coronary
 - (B) Pulmonary
 - (C) Cerebral
 - (D) Muscle
38. To maintain normal H^+ balance, total daily excretion of H^+ should equal the daily
- (A) fixed acid production plus fixed acid ingestion
 - (B) HCO_3^- excretion
 - (C) titratable acid excretion
 - (D) filtered load of H^+
39. Which of the following is true during inspiration?
- (A) Intrapleural pressure is positive
 - (B) The volume in the lungs is less than the functional residual capacity (FRC)
 - (C) Alveolar pressure equals atmospheric pressure
 - (D) Intrapleural pressure is more negative than it is during expiration
40. Which of the following would produce an increase in the reabsorption of isosmotic fluid in the proximal tubule?
- (A) Increased filtration fraction
 - (B) Extracellular fluid (ECF) volume expansion
 - (C) Decreased peritubular capillary protein concentration
 - (D) Increased peritubular capillary hydrostatic pressure
41. Initial hyperpnoea in exercise is because of:
- A) Hypercapnoea
 - B) Hypoxemia
 - C) Lactic acidosis
 - D) Stimulation of cortex and proprioceptors
42. Angiotensin II causes all of the following except:
- A) Stimulation of thirst
 - B) Aldosterone secretion
 - C) Increased ADH secretion
 - D) Vasodilation
43. Isometric contraction occurs in which of the following muscle?
- a. Respiratory muscle
 - b. Extra-ocular muscle
 - c. Antigravity muscle
 - d. GIT muscle
44. The most sensitive index for renal tubular function is:
- a. Specific gravity of urine
 - b. Blood urea
 - c. GFR
 - d. Creatinine clearance
45. The cardiac output (CO) of a well trained athlete is 5.5 L/min. When exercising his CO has ability to reach a maximum value of?

- a. 12 L/min
 - b. 28 L/min
 - c. 35 L/min
 - d. 55 L/min
46. Which of the following hormone is not secreted by the kidney?
- a. Renin
 - b. Angiotensin I
 - c. Erythropoietin
 - d. 1, 25 DHCC
47. Normal gastric juice contains all except:
- a. Na⁺
 - b. K⁺
 - c. Ca⁺⁺
 - d. Mg²⁺
48. A person who is running, the main source of energy he will be using in 1st min is:
- a. Glucose
 - b. Glycogen
 - c. Fat
 - d. Phosphagen
49. Which one of the following causes raised angiotensin in blood?
- a. Increased blood volume
 - b. Raised cardiac output
 - c. Decreased blood pressure
 - d. Increased sympathetic tone
50. Which of the following is TRUE regarding physiological changes in the brain during moderate exercise?
- a. Blood flow is decreased
 - b. Blood flow is increased
 - c. Blood flow remains unaltered
 - d. Blood flow initially increases and then decreases
51. Hypertonic urine is excreted due to absorption of water in:
- a. Collecting ducts
 - b. DCT
 - c. Ascending part of loop of Henle
 - d. Descending part of loop of Henle
52. In moderate exercise the respiratory rate is increased due to response of:
- a. Proprioception receptors in the joints
 - b. Increased PCO₂ in arterial blood
 - c. Increased PO₂ in arterial blood
 - d. J-receptor stimulation
53. Hormones exclusively secreted by placenta:
- a. HCG
 - b. Estrogen

- c. HPL
 - d. PRL
54. Urinary concentrating ability of the kidney is increased by:
- a. ECF volume contraction
 - b. Increase in RBF
 - c. Reduction of medullary hyperosmolarity
 - d. Increase in GFR
55. The hormone that uses an enzyme receptor for its action:
- a. Insulin
 - b. Steroid
 - c. Oestrogen
 - d. Thyroxine
56. Progesterone is produced by:
- a. Granulosa luteal cells
 - b. Theca cells
 - c. Stroma of ovary
 - d. Sertoli cells
57. Hyperaldosteronism is associated with all except:
- a. Hypernatremia
 - b. Hypokalemia
 - c. Hypertension
 - d. Metabolic acidosis
58. Amount of protein undigested in small intestine is:
- a. 1-5%
 - b. 10-20%
 - c. 5-10%
 - d. 25-30%
59. Insulin mediated glucose uptake occurs through:
- a. GLUT1
 - b. GLUT2
 - c. GLUT3
 - d. GLUT4
60. True about dietary fiber:
- a. Soluble fiber increases metabolism of sugar in GIT
 - b. Increase bulk of stool
 - c. Only soluble fibers are included in diet
 - d. Increase GI transit time
61. Iron is actively absorbed in:
- a. Stomach
 - b. Duodenum and proximal jejunum
 - c. Large intestine
 - d. Ileum
62. Hormone with no change in levels in menstrual cycle:
- a. Activin

- b. Inhibin
 - c. FSH
 - d. GnRH
63. Vast majority of obese individuals have increased levels of:
- a. Adiponectin
 - b. Leptin
 - c. Ghrelin
 - d. Cortisol
64. In fetus the insulin secretion begins by:
- a. 3rd month
 - b. 5th month
 - c. 7th month
 - d. 9th month
65. Basal Metabolic Rate is closely related to:
- a. Body weight
 - b. Body surface area
 - c. Amount of adipose tissue
 - d. Amount of lean body mass
66. Ovary produces all except:
- a. Gonadotropin
 - b. Testosterone
 - c. Estrogen
 - d. Inhibin B
67. Which hormone exhibits permissive action on puberty?
- a. Insulin
 - b. GH
 - c. GnRH
 - d. Leptin
68. Insulin secretion is/are increased by all except:
- a. Gastrin
 - b. Secretin
 - c. VIP
 - d. Glucagon
69. Which gastrointestinal motor activity is most affected by vagotomy?
- a. Secondary esophageal peristalsis
 - b. Distension-induced intestinal segmentation
 - c. Oral stomach accommodation
 - d. Caudal stomach peristalsis
70. Increased LH secretion just before ovulation is due to:
- a. Positive feedback by progesterone
 - b. Positive feedback by estrogen
 - c. Positive feedback by FSH
 - d. Positive feedback by relaxin
71. During Tetany hyperexcitability is due to:

- a. Low Ca^{++} causes increase permeability to Na^+
 - b. Prevent K^+ release
 - c. Prevent Na^+ and K^+ release
 - d. Decrease Ca^{++} produce generation of AP
72. Sertoli cells in the testis have receptors for:
- a. FSH
 - b. LH
 - c. Inhibin
 - d. GnRH
73. Removal of proximal segments of the small intestine results in a decrease in:
- a. Maximal acid output
 - b. Gastric emptying of liquids
 - c. Gastric emptying of solids
 - d. Pancreatic enzyme secretion
74. Osteoclasts are inhibited by:
- a. Parathyroid hormone
 - b. Calcitonin
 - c. 1,25-dihydroxycholecalciferol
 - d. Tumor necrosis factor
75. Acidification of the duodenum will:
- a. Decrease pancreatic secretion of bicarbonate
 - b. Increase secretion of gastric acid
 - c. Decrease gastric emptying
 - d. Increase contraction of the sphincter of Oddi
76. Which volume remains in the lungs after a tidal volume (V_T) is expired?
- a. Tidal volume
 - b. Vital capacity
 - c. Expiratory reserve volume
 - d. Functional residual capacity
77. Which of the following is the site of highest airway resistance?
- a. Trachea
 - b. Largest bronchi
 - c. Medium-sized bronchi
 - d. Smallest bronchi
78. Compared with a person who ingests 2 L of distilled water, a person with water deprivation will have a
- a. higher free-water clearance ($C_{\text{H}_2\text{O}}$)
 - b. lower circulating level of antidiuretic hormone (ADH)
 - c. higher tubular fluid/plasma (TF/P) osmolarity in the proximal tubule
 - d. higher rate of H_2O reabsorption in the collecting ducts
79. Compared with the apex of the lung, the base of the lung has
- a. a higher pulmonary capillary PO_2
 - b. a higher pulmonary capillary PCO_2
 - c. a higher ventilation/perfusion (V/Q) ratio

- d. the same V/Q ratio
80. Which of the following would cause an increase in both glomerular filtration rate (GFR) and renal plasma flow (RPF)?
- a. Hyperproteinemia
 - b. A ureteral stone
 - c. Dilation of the afferent arteriole
 - d. Dilation of the efferent arteriole
81. Which is correctly matched
- a. Thelarche – development of breasts
 - b. Gonadarche – development of gonads
 - c. Puberche – development of axillary, pubic and scalp hair
 - d. Menarche –cessation of menstrual cycle
82. First meiotic cell division in the female gamete is completed
- a. At birth
 - b. At ovulation
 - c. At fertilization
 - d. At delivery
83. The midcycle ovulation is largely mediated by
- a. GnRH
 - b. FSH
 - c. Estrogen
 - d. LH
84. Follicular phase of the ovarian cycle corresponds with which phase of the uterine cycle
- a. Ischemic
 - b. Proliferative
 - c. Menses
 - d. Secretory
85. Concerning the corpus luteum
- a. It degenerates soon after fertilization
 - b. It produces luteinizing hormone responsible for ovulation
 - c. Supports early pregnancy by producing progesterone
 - d. Forms the corpus albicans during pregnancy
86. Pubertal growth spurt is controlled by all the following hormones EXCEPT
- a. Growth hormone
 - b. Insulin
 - c. Sex steroids
 - d. Catecholamines
87. The last event to occur during pubertal changes in females is
- a. Appearance of the breast buds
 - b. Appearance of pubic hair
 - c. Peak height spurt
 - d. Menses
88. The hormone measured to diagnose pregnancy is

- a) Progesterone
 - b) Human chorionic gonadotropin
 - c) Estrogen
 - d) oxytocin
89. The process of meiosis produces
- a) two diploid daughter cells that are identical
 - b) Four haploid daughter cells that are not identical
 - c) Four diploid daughter cells that are identical
 - d) Two haploid daughter cells that are not identical
90. An organism with two of the same alleles for a particular trait is called
- a) Homozygous
 - b) Heterozygous
 - c) Dominant
 - d) Recessive
91. Which one is TRUE regarding the resting membrane potential?
- a. Na^+/K^+ ATPase pumps out 2Na^+ and pumps in 3K^+
 - b. Na^+/K^+ ATPase hydrolyses ADP to ATP
 - c. The cell membrane is more permeable to K^+ than Na^+
 - d. Na^+/K^+ ATPase is an example of peripheral cell membrane protein
92. Which one of the following is NOT a graded potential?
- a. Receptor potential
 - b. Generator potential
 - c. Excitatory post-synaptic potential
 - d. Effector potential
93. An action potential initiated from several simultaneous subthreshold graded potentials, from different locations is known as?
- a. Temporal summation
 - b. Subthreshold summation
 - c. Post-synaptic summation
 - d. Spatial summation
94. Which one is TRUE regarding muscarinic receptors?
- a. M1 is found in the autonomic ganglia
 - b. Muscarine is an exogenous antagonist
 - c. They are ligand gated ion channel receptors
 - d. Atropine is a muscarinic agonist
95. The following are TRUE about glutamate except?
- a. It is re-uptaken into glia via glutamate re-uptake transporter
 - b. It is released into synaptic cleft via Ca^{2+} dependent exocytosis
 - c. It is converted to ketoglutarate in the glia
 - d. It is re-uptaken directly into pre-synaptic nerve terminal by membrane transporters
96. Which one CORRECTLY states the biosynthesis and storage of monoamines?
- a. Phenylalanine is a precursor for tyrosine
 - b. Tyrosine uptake into cytosol is via K^+ dependent transporter

- c. DOPA is converted to dopamine by DOPA dehydrogenase
 - d. Norepinephrine is converted to epinephrine in the storage vesicles
97. Which one is FALSE concerning autonomic modulation?
- a. Sympathetic stimulation causes constriction of the eye pupil
 - b. Parasympathetic stimulation causes contraction of the ciliary muscle
 - c. Sympathetic stimulation of sweat glands is via Acetylcholine
 - d. Parasympathetic stimulation causes little or no effect on blood vessels
98. Which one is TRUE regarding the sarcoplasmic reticulum?
- a. It's the rough endoplasmic reticulum found in myocytes
 - b. Its stores and pumps calcium
 - c. Dihydropyridine receptors are located on the sarcolemma
 - d. Ryanodine receptors are located on the T-tubules
99. Which one is FALSE according to excitation – contraction coupling (E-C) contraction?
- a. Exposure of actin binding site for myosin allows formation of myosin/actin cross-bridges
 - b. Termination involves pumping Ca^{2+} into sarcoplasmic reticulum using ATP
 - c. Contractions are short-lived than action potentials
 - d. Cardiac muscle doesn't undergo tetany because of absolute refractory period
100. Which one is NOT true about neospinothalamic pathway?
- a. Fast pain
 - b. Terminate in laminae I (lamina marginalis)
 - c. Second order neurons decussate
 - d. GABA involved
101. One of the following is NOT a sensory tract?
- a. Posterior column tract
 - b. Spinothalamic tract
 - c. Spinocerebellar tract
 - d. Medial tectospinal tract
102. One of the following is incorrect about the tympanic membrane?
- a. Thin connective tissue membrane that vibrates in response to sound
 - b. Equalizes pressure in the middle ear cavity with the external air pressure
 - c. Transfers sound energy to the middle ear ossicles
 - d. Boundary between outer and middle ears
103. Which one is FALSE concerning dorsal spinocerebellar tract?
- a. Primary function is to relay proprioceptive input
 - b. First order neurons project contralaterally to nucleus dorsalis of Clarke
 - c. Second-order neurons arise from the dorsal nucleus of Clarke ascend ipsilaterally to the inferior cerebellar peduncle
 - d. Third order neurons are passed to the cerebellum as 'mossy fibres

104. One of the following DOES NOT contain first order neurons of gustatory pathway
- Mandibular branch of trigeminal nerve
 - Corde tympani branch of facial nerve
 - Glossopharyngeal nerve
 - Vagus nerve
105. Which one is TRUE regarding olfactory receptors?
- They are ligand gated ion channels
 - They have no specific ligand
 - They inhibit adenylyl cyclase
 - Vomer nasal organ is well developed in humans
106. Regarding the primary motor area, which one is FALSE?
- Lies in the first convolution of the frontal lobes anterior to the central sulcus
 - Controls the musculature of the opposite side of the body
 - Face is unilaterally represented
 - Face and mouth are represented near the sylvian fissure
107. In conditioned reflex:
- The stimulus that normally produces a particular innate response is called conditioned stimulus.
 - In conditioned Stimulus, a relationship between an action by an animal and an external stimulus is an instinct thus never learned.
 - There is a response to a stimulus that previously elicited little or no response, acquired by repeatedly pairing the stimulus with another stimulus that normally produces the response.
 - Once conditioned reflex is developed it becomes permanent even in absence of further stimulation
108. Wernicke's area:
- The area in the brain concerned with word formation.
 - Is located in the cerebellum.
 - In absence of visual stimulation, words cannot be interpreted.
 - Is the area of language comprehension
109. Angular gyrus area:
- Responsible for making meaning of perceived words into a language.
 - Does not associate with other parts of the brain in learning of a language.
 - In its absence, a person will not be able to learn words.
 - Is responsible for interpretation of faces
110. Uncorrectable loss of visual acuity that is not directly due to organic disease of the eye.
- Amblyopia
 - Strabismus
 - Diplopia
 - Hyperopia

111. Axons carry information from?
- The terminal dendrites to Cell body
 - The cell body to the axon terminals
 - Axon terminals to synapse
 - Synapse to terminal dendrites
112. Depolarization is?
- Returning to the RMP from either direction.
 - An increase in the potential difference between the inside and outside of the cell.
 - A decrease in the potential difference between the inside and outside of the cell.
 - When the inside of the cell becomes positive due to the reversal of the membrane potential polarity.
113. A graded potential hyperpolarization is?
- An inhibitory postsynaptic potentials
 - An excitatory postsynaptic potential
 - An action potential
 - A resting membrane potential
114. Which factor does not favor turbulent flow in a blood vessel
- Large-diameter vessels
 - High flow velocity
 - Low blood viscosity
 - High capacitance vessel
115. Which one truly occurs during the phases of an action potential?
- Repolarisation = K^+ efflux
 - Hyperpolarisation = Na^+ influx
 - After-hyperpolarisation = Ca^{2+} and Na^+ channels open completely
 - Depolarization = K^+ influx
116. Neuronal speed of conduction is determined by all except?
- Temperature
 - Length
 - Myelination
 - Diameter
117. This neuronal circuit is subject to facilitation or inhibition.
- Reverberatory
 - Parallel
 - Convergence
 - Divergence
118. Which is NOT TRUE of cardiac muscle?
- Cells are multinucleated
 - Are striated
 - Are under autonomic control
 - Control is achieved by pacemakers

119. Compared with the cardiac and skeletal muscles, the smooth muscle have:
- Have a lower oxygen consumption rate
 - The force of contraction is much weaker than in the skeletal muscle
 - Can sustain contractions for extended periods without fatiguing
 - Cannot exhibit tonic contraction and maintain tension when there is a continued load.
120. About the functions of the cerebellum:
- Orintention tremor results in an individual with intact cerebellum
 - Orintention tremor refers to the ability of the pendulus limb to gain the intended position after several attempts of oscillation back and forth following damage to the cerebellum.
 - Unintended overshooting of movement of a limb is common even in intact cerebellum.
 - It is one of centers for speech.