

MED 304. Test

PART TWO

Identify the letter of the choice that best completes the statement or answers the question. (Each Question is 0.5 Mark)

- (1) The autonomic nervous system is (a) part of the somatic nervous system. (b) **considered to be the involuntary branch of the efferent division of the peripheral nervous system.** (c) part of the central nervous system. (d) Two of these answers. (e) All of these answers.
- (2) Sympathetic stimulation _____ heart rate and _____ the motility in the digestive tract. (a) does not affect, decreases. (b) decreases, decreases. (c) decreases, increases. (d) **increases, decreases.** (e) increases, increases.
- (3) Parasympathetic stimulation _____ heart rate and _____ the motility in the digestive tract. (a) does not affect, increases. (b) decreases, decreases. (c) **decreases, increases.** (d) increases, decreases. (e) increases, increases.
- (4) Pacinian corpuscles (a) **adapt as a result of the physical features of the receptor.** (b) detect temperature. (c) are tonic receptors. (d) do not display an "off-response." (e) measure the degree of joint flexion.
- (5) Which of the following activities occurs in the presence of light within the phototransduction pathway? (a) ganglion cells produce action potentials. (b) cGMP levels high in receptors. (c) **bipolar cells produce graded potentials.** (d) sodium channels open in receptors. (e) None of these answers.
- (6) Which of the following does not occur in a photoreceptor during exposure to light? (a) membrane hyperpolarization. (b) closure of Na⁺ channels in the outer segment. (c) **increased transmitter release from the synaptic terminal.** (d) decrease in cyclic GMP in the outer segment. (e) closure of Ca²⁺ channels in the synaptic terminal.
- (7) Deflection of the basilar membrane (a) activates the receptors of the organ of Corti. (b) occurs in response to fluid movements in the cochlea. (c) results from displacement of the round window. (d) **both activates the sound receptors of the organ of Corti and occurs in response to fluid movements in the cochlea are correct.** (e) All of these answers.
- (8) The semicircular canals (a) detect the position of the head relative to gravity. (b) **detect rotational or angular acceleration of the head.** (c) contain otoliths. (d) Both (a) and (c) above. (e) Both (b) and (c) above.
- (9) Binding of scent signals to olfactory receptors (a) activates G proteins. (b) Results in cAMP production. (c) Opens sodium channels. (d) Both (a) and (b) above. (e) **All of these answers.**
- (10) Which statement regarding CSF production and flow is correct? (a) CSF is produced along the spinal cord. (b) CSF is produced by meningeal cells. (c) **CSF enter the meningeal layer through the cerebral aqueduct.** (d) CSF flows inferiorly along the dorsal subarachnoid space of the spinal cord. (e) CSF does not flow through the meningeal layers.
- (11) The sense of body position is (a) somatosensory. (b) kinesthetic. (c) **proprioception.** (d) integrated in the occipital lobe. (e) None of the above.
- (12) Which of the following functions is not associated with the hypothalamus? (a) **control of respiration and circulatory function.** (b) control of thirst and urine output. (c) control of body temperature. (d) control of food intake. (e) extensive involvement with emotion and behavioral patterns.
- (13) Most of the cranial nerves originate from the (a) **brain stem.** (b) cerebellum. (c) cerebral cortex. (d) hypothalamus. (e) thalamus.
- (14) What region of the brain houses the centers that control the sleep-wake cycle? (a) hypothalamus. (b) thalamus. (c) **brain stem.** (d) cerebral cortex. (e) None of these answers.
- (15) Information travels up the spinal cord to the brain via (a) afferent pathways. (b) efferent pathways. (c) **ascending tracts.** (d) descending tracts. (e) the dorsal root ganglion.