

PARUL UNIVERSITY
FACULTY OF PHARMACY
B.Pharm., Summer 2017 - 18 Examination

Semester: 1**Subject Code: BP101T****Subject Name: Human Anatomy and Physiology- I****Date: 29/05/2018****Time: 10:00 am to 1:00 pm****Total Marks: 75****Instructions:**

1. Figures to the right indicate maximum marks.
2. Make suitable assumptions wherever necessary.

Q.1 Multiple Choice Questions (MCQs) (1 Mark Each)**(20)**

1. Connexons is present in which types of cell junction?

a) tight junction	b) desmosomes
c) hemidesmosomes	d) gap junction
2. Which form of transporter through plasma membranes requires expenditure of energy by the cells?

a) diffusion	b) osmosis
c) active transport	d) facilitated diffusion
3. Which of the following is **NOT** a connective tissue?

a) blood	b) mesothelium
c) fat	d) tendon
4. Calorigenic effects is due to presence of _____ gland.

a) thyroid	b) pituitary
c) pancreas	d) adrenal
5. Action potential generation is characteristic of which types of tissue?

a) Connective	b) Muscular
c) Nervous	d) both b & c
6. The neuroglial cell responsible for formation of blood brain barrier in CNS is _____?

a) Astrocyte	b) Ependymal cell
c) Oligodendrocyte	d) Microglial cell
7. The value of Resting membrane potential in neuronal cells is?

a) -72 mV	b) -70 mV
c) 50 mV	d) 110 mV
8. Ball and socket kind of movable joint present in?

a) fingers of hand	b) clavicle with scapula
c) hip and femur	d) vertebrae column
9. Osmotic pressure and body temperature regulation is function of _____.

a) hypothalamus	b) cerebrum
c) hippocampus	d) diencephalon
10. Complete loss of adrenocortical hormones leads to death due to _____.

a) respiration failure	b) liver cirrhosis
c) hypertension	d) dehydration and electrolyte imbalances
11. Which of the neurotransmitter has potent analgesic (pain-relieving) effect, which is 200 times stronger than morphine?

a) Enkephalins	b) Acetylcholine
c) Dopamine	d) NO
12. Brain stem consist of _____.

a) Medulla oblongata	b) Pons
c) Midbrain	d) all of the above
13. Non-Polar, hydrophobic molecules move across the lipid bilayer through the process of?

a) simple diffusion	b) active transport
c) vesicle mediated transport	d) osmosis

14. Detoxification of lipid-soluble drugs or potentially harmful substances, such as alcohol, carcinogens & pesticide is function of_____.
- a) ribosome
b) nucleus
c) mitochondria
d) smooth endoplasmic reticulum
15. Seasonal Affective disorder & Jet lag is due to disorder of which hormone?
- a) Melatonin
b) Insulin
c) Oxytocin
d) Glucagon
16. Crossing over non-sister chromatids take place during _____ phase of meiosis.
- a) prophase-II
b) prophase- I
c) telophase-I
d) anaphase-II
17. Which of the following is example of positive feedback mechanism?
- a) baroreflex in blood pressure regulation
b) erythropoiesis
c) oxytocin release during child birth
d) all of the above
18. Which of the following bone available at the base of the tongue?
- a) ribs
b) hyoid
c) pelvic girdle
d) radius
19. Which of the following organ of limbic system responsible for fear and aggression?
- a) Hippocampus
b) Amygdala
c) fornix
d) Corpus callosum
20. The outer most layer of the skin is called as?
- a) cutis
b) dermis
c) epidermis
d) corium

Q.2 Long Answers (any 2 out of 3) (10 Mark Each) (20)

1. Elaborate on action potential generation and its propagation.
2. Explain in detail about Pituitary gland and justify the statement that pituitary gland act as master gland.
3. Explain in detail with diagram about eye and tongue as sensory organs.

Q.3 Short Answers (any 7 out of 9) (5 Mark Each) (35)

1. Explain various phases of mitosis with the help of diagram.
2. Describe on different types of joints movements and its articulation
3. Classify connective tissue with example and explain about blood.
4. Write on anatomy and physiology of cerebellum.
5. Explain about physiology of muscle contraction.
6. Differentiate in between sympathetic and parasympathetic nervous system.
7. Explain the anatomy and physiology of thyroid gland.
8. List out various cranial nerve with its origin and function.
9. Explain with example Intracellular signalling pathway activation by extracellular signal molecule.