

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

**Semester: 1****Subject Code: BP101T****Subject Name: Human Anatomy and Physiology-I****Date: 08/01/2018****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)****(20)**

1. Which one is the example of contralateral in body?
 

a) Ascending and descending colon	b) Gall bladder and ascending colon
c) Spleen and heart	d) Pancreas and liver
2. Cells of epithelial tissues that line the stomach, intestines, and urinary bladder is example of
 

a) Tight junctions	b) Adherens junction
c) Hemidesmosomes	d) Desmosomes
3. \_\_\_\_\_ is the largest organ of the body.
 

a) Leg	b) Ear
c) Liver	d) Skin
4. Urinary bladder made up of
 

a) Stratified columnar epithelium	b) Transitional epithelium
c) Simple columnar epithelium	d) Stratified cuboidal epithelium
5. The total number of axial bones in the human body.
 

a) 206	b) 126
c) 80	d) 75
6. The role of troponin protein in muscle contraction is
 

a) Prime contractile element of muscle	b) Non-contractile and elastic in nature
c) Play role in sensitizing actin and myosin	d) Takes up calcium ion from sarcoplasm
7. Which one of the follow is example of cartilaginous joints?
 

a) Between vertebrae of spine	b) Teeth held within bony socket
c) Between elbow and shoulder	d) Femur and Hip bone
8. Which cells of the neuroglia involved in myelination process of neuron in CNS?
 

a) Schwann cells	b) Ependymal cells
c) Oligodendrocyte	d) Microglia
9. Which Nerve fiber can conduct nerve impulses (action potentials) at the highest speeds?
 

a) D fiber	b) C fiber
c) A fiber	d) None of the above
10. Gustatory receptor cells trigger nerve impulses in cranial nerves \_\_\_\_\_.
 

a) VII, IX, X	b) IV, V
c) I, II, III	d) X, V
11. \_\_\_\_\_ occurs between local cells where the signals elicit quick responses and last only a short amount of time.
 

a) Endocrine signaling	b) Autocrine signaling
c) Paracrine signaling	d) None of the above
12. Increase in intra ocular pressure within eye is called as
 

a) Cataract	b) Tinnitus
c) Glaucoma	d) Vertigo
13. Which of the following hormones are secreted by posterior pituitary gland?
 

a) Oxytocin and vasopressin (ADH)	b) Adrenalin and thymosin
c) Estrogen and Insulin	d) Calcitonin and thyroxine
14. Which of the following hormone stimulate synthesis of Na<sup>+</sup>/K<sup>+</sup> ATPase in the cell?
 

a) Insulin	b) Follicle stimulating hormone
c) Thyroid	d) Aldosterone

15. Which hormone of Adrenal Gland Inhibit white blood cells that participate in inflammatory responses?
  - a) Glucocorticoid
  - b) Mineralocorticoid
  - c) Androgen
  - d) Adrenaline
16. How many pairs of Spinal Nerves are present in human body?
  - a) 12
  - b) 11
  - c) 31
  - d) 5
17. The Cranial Nerve that connected with ear function is
  - a) Optic
  - b) Vestibulocochlear
  - c) Trigeminal
  - d) Vagus
18. The period of time after an action potential begins during which an excitable cell cannot generate another action potential in response to a normal threshold stimulus is called
  - a) Graded potential
  - b) Resting membrane potential
  - c) Refractory period
  - d) None of the above
19. Which types of ion channels are involved in generation of Action potential?
  - a) Voltage gated Na & K ion channel
  - b) Mechanically gated Na & K ion channel
  - c) Ligand gated Na & K ion channel
  - d) Leakage ion channels
20. The limbic system is sometimes called as
  - a) Seat of Intelligence
  - b) Emotional brain
  - c) Blood brain barrier
  - d) None of the above

**Q.2 Long Answers (any 2 out of 3)**

**(20)**

1. Explain in detail about mitosis and meiosis process of cell cycle.
2. Write in detail about pancreas as endocrine gland along with its hormones role in maintaining blood glucose homeostasis.
3. Elaborate on anatomy and physiology of Cerebrum and Hypothalamus.

**Q.3 Short Answers (any 7 out of 9)**

**(35)**

1. Define Homeostasis and explain about Negative feedback mechanism of homeostasis.
2. Explain about vesicle mediated transport system functioning across plasma membrane.
3. Classify connective tissue and explain about blood as liquid connective tissue.
4. Explain neuromuscular junction along with schematic diagram.
5. Classify neurotransmitter and describe about each.
6. Explain synthesis and circulation pathway of cerebro spinal fluid in CNS.
7. Explain reflex activity with example.
8. Differentiate in between sympathetic and parasympathetic system of ANS.
9. Explain anatomy and physiology of ear.