

[BUMS-0723]

Sub. Code : 1207

THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY

JULY 2023

KAMIL-E-TIB WA JARAHAT

FIRST PROFESSIONAL B.U.M.S. DEGREE COURSE

PAPER VII - MUNAFE-UL-AAZA (PHYSIOLOGY) UNIUG-MZ PAPER – II

Q.P. Code : 621207

(New Regulations 2021)

Time : 30 Minutes

Maximum : 20 marks

Answer ALL questions.

Choose one correct answer in the box provided in the Answer Script.

No overwriting should be done. Choice should be given in Capital Letters.

Multiple Choice Questions:

(20 × 1 = 20)

1. Longest cranial nerve is
(A) Trigeminal nerve (B) Facial nerve
(C) Vagus (D) Glossopharyngeal nerve
2. Which of the following layers of skin does not contain any blood vessels?
(A) Cutis (B) Dermis
(C) Corium (D) Epidermis
3. On the human body, the thickest skin is located on the
(A) Thighs (B) Buttock
(C) Abdomen (D) Palms and soles
4. What is another name for the Stratum Germinativum?
(A) Epidermis (B) Dermal Layer
(C) Stratum Lucidum (D) Basal layer or Stratum Basal
5. True about cerebellum is
(A) Cerebral cortex has mostly inhibitory effects on cerebellum
(B) Co-ordination
(C) Planning of motor movements
(D) Decreased tone
6. Vermis is a part of
(A) Cerebellum (B) Medulla oblongata
(C) Spinal cord (D) Basal ganglia

7. The largest nucleus in cerebellum is
 (A) Nucleus globosus (B) Dentate nucleus
 (C) Nucleus emboliformis (D) Caudate nucleus
8. The motor protein that is responsible for anterograde rapid transport in the neuron is
 (A) Dynein (B) Kinesin
 (C) Myosin-1 (D) Myosin-2
9. The two cerebral hemispheres are connected by
 (A) Corona radiata (B) Corpus callosum
 (C) Falx cerebri (D) Internal capsule
10. The cavity present in each cerebral hemisphere is called
 (A) Lateral ventricle (B) Third ventricle
 (C) Fourth ventricle (D) None of the above
11. The large mass of egg-shaped gray matter that lies on either side of third ventricle is
 (A) Caudate nucleus (B) Globus pallidus
 (C) Lentiform nucleus (D) Thalamus
12. The number of coccygeal spinal nerves is
 (A) 4 pairs (B) 1 pair
 (C) 3 pairs (D) 5 pairs
13. The structural and functional unit of kidney is
 (A) Juxtaglomerular apparatus (B) Macula densa
 (C) Nephron (D) Bowman's capsule
14. Renal plasma flow can be measured by determining the clearance value of
 (A) PAH (B) Inulin
 (C) Urea (D) Creatinine
15. In normal conditions the substance present in the body whose clearance value is measured to find out GFR is
 (A) Creatinine (B) Urea
 (C) Inulin (D) Glucose
16. Action of aldosterone is greatest in
 (A) Glomerulus
 (B) Cortical collecting duct
 (C) Proximal tubule
 (D) Thick ascending limb of loop of Henle
17. All the following are features of hypoaldosteronism EXCEPT
 (A) Hypokalemia (B) Hypotension
 (C) Metabolic acidosis (D) Salt wasting

18. Normal renal blood flow is
(A) 1800 mL/min (B) 700 mL/min
(C) 1200 mL/min (D) 1600 mL/min
19. Deficiency of thyroid hormone in children
(A) Cretinism (B) Addison's disease
(C) Myxedema (D) Cushing's syndrome
20. The number of nephrons in each kidney is approximately
(A) 1.2 Million (B) 2 Million
(C) 2 Lakhs (D) 12 Million
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[BUMS 0624]

Sub. Code : 1207

THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY

KAMIL-E-TIB WA JARAHAT

FIRST PROFESSIONAL B.U.M.S. DEGREE COURSE

JUNE 2024

PAPER VII – MUNAFEUL AZA (PHYSIOLOGY) PAPER II – UNIUG – MZ

Q.P. Code : 621207

(New Regulation)

Time : 30 Minutes

Maximum : 20 marks

Answer ALL questions.

Choose one correct answer in the box provided in the Answer Script.

No overwriting should be done.

I. Multiple Choice Questions: (20 × 1 = 20)

1. The urinary output is increased by the following except :
(A) Decreased renal blood flow (B) Diabetes insipidus
(C) Diabetes mellitus (D) increased renal blood flow
2. Following cells are found in abundance in epidermis :
(A) Langerhans cells (B) Keratinocytes
(C) Melanocytes (D) Thrombocytes
3. Heat regulation centre is
(A) Pancreas (B) Liver
(C) Hypophysis (D) Hypothalamus
4. Vitamin D can be synthesized by this organ when exposed to sunlight
(A) Eyes (B) Teeth
(C) Hair (D) None of the above
5. Following are the functions of oxytocin :
(A) stimulation of milk ejection in lactating mothers.
(B) stimulation of uterine contractions during labour.
(C) Both (A) & (B)
(D) None of the above
6. Following are the Pancreatic hormones
(A) Insulin (B) Glucagon
(C) Both (A) & (B) (D) None of the above

7. Following are the hormones of Hypophysis except
 (A) Somatotrophic hormone (B) Thyroid stimulating hormone
 (C) Gonadotrophic hormone (D) Thyroxin
8. The swallowing centre is situated in :
 (A) Midbrain (B) Cerebellum
 (C) Medulla (D) Pons
9. The increase of Heart rate will be found in
 (A) Old age (B) Adult
 (C) Newborn (D) Foetus
10. "C" cells found in :
 (A) Adrenal gland (B) Parathyroid gland
 (C) Thyroid gland (D) None of the above
11. The optical power of Eye
 (A) 25 Dioptres (B) 50 Dioptres
 (C) 60 Dioptres (D) 75 Dioptres
12. This is not glycoprotein :
 (A) FSH (B) LH
 (C) TSH (D) GH
13. Calcitonin is secreted by :
 (A) Thyroid gland (B) Parathyroid gland
 (C) Thymus gland (D) Kidney
14. Synonym of Hypophysis is :
 (A) Prostate gland (B) Pineal gland
 (C) Thymus gland (D) Pituitary gland
15. When the secretion of pancreatic juice starts after the intake of food :
 (A) 1 to 2 minutes (B) 3 to 4 minutes
 (C) 4 to 6 minutes (D) 8 to 10 minutes
16. Glucagon is produced by which cells of Langerhans?
 (A) alpha cells
 (B) beta cells
 (C) Both
 (D) None
17. Normal serum calcium levels:
 (A) 1 - 3 mg % (B) 4 - 6 mg %
 (C) 9 - 11 mg% (D) 15 - 17 mg %

18. Name of the tenth Cranial nerve:
- | | |
|------------------------------|---------------------|
| (A) Hypoglossal nerve | (B) Vagus nerve |
| (C) Vestibulo Cochlear nerve | (D) Olfactory nerve |
19. Rods and Cones present in:
- | | |
|------------|-------------|
| (A) Ear | (B) Eyes |
| (C) Testes | (D) Kidneys |
20. Xerophthalmia is due to deficiency of:
- | | |
|---------------|-----------------------|
| (A) Vitamin A | (B) Vitamin B complex |
| (C) Vitamin C | (D) Cyanocobalamin |
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[BUMS 0125]

Sub. Code : 1207

THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY

KAMIL-E-TIB WA JARAHAT

FIRST PROFESSIONAL B.U.M.S. DEGREE COURSE

JANUARY 2025 (SUPPLEMENTARY EXAM)

PAPER VII – MUNAFEUL AZA (PHYSIOLOGY) PAPER - II

Q.P. Code : 621207

(New Regulation)

Time : 30 Minutes

Maximum : 20 marks

Answer ALL questions.

Choose one correct answer in the box provided in the Answer Script.

No overwriting should be done.

I. Multiple Choice Questions: (20 × 1 = 20)

1. Which hormone promotes cell division, protein synthesis, and bone growth?

- | | |
|---------|------------------|
| (A) GH | (B) ACTH |
| (C) ADH | (D) Active Vit-D |

2. Testosterone is secreted by :

- | | |
|----------------------|-----------------------|
| (A) Sertoli cells | (B) Leydig cells |
| (C) Follicular cells | (D) None of the above |

3. Which hormone controls the basal metabolic rate?

- | | |
|---------------|----------------------|
| (A) Thyroxine | (B) Adrenaline |
| (C) Insulin | (D) All of the above |

4. Which hormone is termed as “Dracula of hormones”?

- | | |
|-----------------|---------------|
| (A) Epinephrine | (B) Melatonin |
| (C) Insulin | (D) Thyroxine |

5. Which inhibits the secretion of growth hormone?

- | |
|------------------|
| (A) Stress |
| (B) Sleep |
| (C) Starvation |
| (D) Somatomedins |

6. Which hormone originates in the anterior pituitary?

- | | |
|----------|--------------|
| (A) TSH | (B) Oxytocin |
| (C) GnRH | (D) GHRH |

7. Physiological oxytocin secretion is increased by
 - (A) Milk ejection
 - (B) Prolactin secretion
 - (C) Dilation of cervix
 - (D) ECF
8. Insulin can be described as :
 - (A) Ketogenic
 - (B) Gluconeogenic
 - (C) Protein anabolic
 - (D) Diuretic
9. Which of the following is a substrate controlled hormone?
 - (A) FSH
 - (B) Glucagon
 - (C) TRH
 - (D) LH
10. Major estrogen secreted by the ovary is :
 - (A) Estriol
 - (B) Estrone
 - (C) Estradiol
 - (D) Ethenylestradiol
11. Which hormone mainly responsible for skeletal maturation?
 - (A) Testosterone
 - (B) GH
 - (C) Estrogen
 - (D) Insulin
12. What is the normal range for serum osmolality (in mOsm/L)?
 - (A) 200-250
 - (B) 250-270
 - (C) 275-290
 - (D) 300-325
13. Where does the maximum absorption of HCO_3 occur?
 - (A) DCT
 - (B) Ascending LoH
 - (C) PCT
 - (D) Collecting duct
14. PCT absorbs all except
 - (A) Hydrogen ions
 - (B) Sodium
 - (C) Glucose
 - (D) Amino acid
15. 1,25-Dihydroxycholecalciferol is secreted by
 - (A) Collecting duct
 - (B) PCT
 - (C) Liver
 - (D) Adrenal cortex
16. Normal protein excretion urine per day is
 - (A) 0-20 mg
 - (B) 100-500 mg
 - (C) 20-50 mg
 - (D) 500-1000 mg
17. The least clearance in the following options is for
 - (A) Urea
 - (B) Glucose
 - (C) Creatinine
 - (D) Insulin

18. Which cells are responsible for acid secretion in kidney?
(A) Cells (B) Pericyte
(C) P Cells (D) Mesengial cells
19. Juxtaglomerular apparatus lies in relation to
(A) Glomerulus (B) Descending LoH
(C) Ascending LoH (D) PCT
20. Sucrose space is an indicator of
(A) ICF Volume (B) TBW
(C) Interstitial fluid volume (D) ECF volume
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[BUMS 0325]

Sub. Code : 1207

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

KAMIL-E-TIB WA JARAHAT

FIRST PROFESSIONAL B.U.M.S. DEGREE COURSE

MARCH 2025

PAPER VII - MANAFEUL AZA (PHYSIOLOGY) PAPER II - UNIUG-MZ

Q.P.Code : 621207

(New Regulation 2022)

Time : 30 Minutes

Maximum : 20 marks

Answer All questions.

I. Multiple Choice Questions (20 × 1 = 20)

1. Increased GFR is caused by :

- (A) Increased cardiac output
- (B) Afferent arteriolar vasoconstriction
- (C) Efferent arteriolar vasodilatation
- (D) Increased chloride delivery to the macula densa

2. The filtration fraction of the kidney is :

- (A) 0.1 (B) 0.2
- (C) 0.3 (D) 0.4

3. Which of the following substances is responsible for the yellow color of urine?

- (A) Urea (B) Creatinine
- (C) Urochrome (D) Uric acid

4. Which of the following results in decreased K⁺ excretion?

- (A) Prolonged vomiting (B) Metabolic acidosis
- (C) Normal saline infusion (D) Renal failure

5. Glomerular filtration rate may be decreased by
(A) Angiotensin II (B) Renal oedema
(C) Hypotension (D) All of the above
6. What is the main protein found in human hair?
(A) Collagen (B) Keratin
(C) Elastin (D) Actin
7. What is the typical growth rate of human hair per month?
(A) 0.5 cm (B) 1 cm
(C) 1.5 (D) 2 cm
8. What is the purpose of the cuticle layer of the hair?
(A) To produce melanin
(B) To protect the hair shaft
(C) To store nutrients etitive Exams
(D) To regulate hair growth
9. What is the average number of hair strands lost by a person daily?
(A) 10-20 (B) 30-50
(C) 50-100 (D) 150-200
10. What condition causes hair to become gray or white?
(A) Hypertrichosis (B) Hirsutism
(C) Canities (D) Trichotillomania
11. Which part of the nervous system is responsible for the "fight or flight" response?
(A) Sympathetic nervous system
(B) Para sympathetic nervous system
(C) Autonomic nervous system
(D) Somatic nervous system
12. Which of the following is a function of the cerebellum?
(A) Memory storage (B) Balance and coordination
(C) Emotion regulation (D) Thirst sensation

13. The gap between two adjacent neurons, where neuro transmitters are released, is called as
(A) Synapse (B) Axon
(C) Dendrite (D) Node of Ranvier
14. The sympathetic and para sympathetic nervous systems are components of the
(A) Central nervous system (B) Peripheral nervous system
(C) Autonomic nervous system (D) Somatic nervous system
15. Which part of the brain is responsible for regulating body temperature, hunger, and thirst?
(A) Hypothalamus (B) Medulla oblongata
(C) Pons (D) Cerebellum
16. TSH_____?
(A) Stimulates adrenal cortex (B) Stimulates the gonads
(C) Stimulates the thyroid gland (D) Stimulate adrenal medulla
17. What is the main function of norepinephrine?
(A) Increase blood pressure (B) Increase urine
(C) Cellular respiration (D) The release of epinephrine
18. Para thyroid hormone triggers
(A) An increase in stored calcium
(B) An increase in blood calcium
(C) An increase in thyroid hormones
(D) An decrease in phosphorus in bone
19. Which of the following becomes enlarged if iodine is absent from the diet?
(A) Pituitary (B) Pancreas
(C) Thyroid (D) Adrenals
20. Excess secretion from which gland can cause person to be thin, hyper active, always hunger and irritable?
(A) Pitutory (B) Pancreas
(C) Thyroid (D) Adrenal

[BUMS 0725]

Sub. Code : 1207

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

KAMIL-E-TIB WA JARAHAT

FIRST PROFESSIONAL B.U.M.S. DEGREE COURSE

JULY 2025 (SUPPLEMENTARY EXAM)

PAPER VII - MUNAFEUL AZA (PHYSIOLOGY) PAPER II - UNIUG-MZ

Q.P.Code : 621207

(New Regulation 2022)

Time : 30 Minutes

Maximum : 20 marks

Answer All questions.

I. Multiple Choice Questions (20 × 1 = 20)

1. What is the average capacity of the urinary bladder?

- | | |
|----------------|----------------|
| (A) 100-200 ml | (B) 300-400 ml |
| (C) 500-600 ml | (D) 700-800 ml |

2. What is the primary function of the detrusor muscle in the bladder?

- (A) Filtration
- (B) Contraction and relaxation
- (C) Reabsorption
- (D) Secretion

3. What is the main component of kidney stones?

- | | |
|---------------------|---------------------|
| (A) Urea | (B) Calcium oxalate |
| (C) Sodium chloride | (D) Creatinine |

4. Which of the following is a common symptom of kidney failure?

- | | |
|-------------------|------------------|
| (A) Hypertension | (B) Anemia |
| (C) Hyperglycemia | (D) Osteoporosis |

5. Resistance to renal blood flow is chiefly determined by
(A) Renal artery (B) Afferent & efferent arterioles
(C) Interlobular & arcuate arteries (D) Peritubular capillaries
6. Which of the following layer has the hair follicles?
(A) Hypodermis (B) Epidermis
(C) Dermis (D) Subcutaneous layer
7. Which of the following is the outer most layer of the epidermis?
(A) Stratum corneum (B) Stratum lucidum
(C) Stratum granulosum (D) Stratum spinosum
8. When the blood oxygen concentration is low, the skin appears bluish, this condition is called :
(A) Cyanosis (B) Albinism
(C) Melanism (D) Cretinism
9. Which of the following gland secrete oil?
(A) Sebaceous (B) Sudoriferous
(C) Merocrine (D) Eccrine
10. What determines the color of human hair?
(A) Carotene (B) Hemoglobin
(C) Melanin (D) Collagen
11. Which part of the neuron receives signals from other neurons?
(A) Axon (B) Dendrite
(C) Synapse (D) Nucleus
12. Which neuro transmitter is associated with mood regulation and pleasure?
(A) Serotonin (B) Dopamine
(C) Acetyl-choline (D) GABA
13. The myelin sheath is formed by :
(A) Astrocytes (B) Microglia
(C) Oligodendrocytes (D) Schwann cells

14. The somatic nervous system is responsible for :
(A) Involuntary actions (B) Reflexes
(C) Voluntary movements (D) Heart beat regulation
15. What is the function of the blood-brain barrier?
(A) Allows free passage of substances between blood and brain
(B) Protects the brain from harmful substances in the blood
(C) Controls the brain's temperature
(D) Facilitates nutrient exchange in the brain
16. Which hormone is produced by the pineal gland and regulates sleep wake cycles?
(A) Melatonin (B) Cortisol
(C) Epinephrine (D) Estrogen
17. Which hormone is responsible for regulating sodium and Potassium level in the blood?
(A) Aldosterone (B) ADH
(C) Cortisol (D) Glucagon
18. Which hormone is responsible for stimulating the development of secondary sexual characteristics in male?
(A) Estrogen (B) Progesterone
(C) Testosterone (D) FSH
19. Which hormone is responsible for stimulating uterine contraction during child birth?
(A) Oestrogen (B) Progesterone
(C) Prolactin (D) Oxytocin
20. Which of the following glands has both an endocrine and an exocrine function?
(A) Mamary Gland (B) Pancreas
(C) Pituitary (D) Adrenal Gland
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[BUMS 1025]

Sub. Code : 1207

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

KAMIL-E-TIB WA JARAHAT

FIRST PROFESSIONAL B.U.M.S. DEGREE EXAMINATION

OCTOBER 2025 (SUPPLEMENTARY EXAM)

PAPER VII - MUNAFE-UL AZA (PHYSIOLOGY PAPER - II) - UNIUG - MZ

Q.P.Code : 621207

(New Regulation 2021)

Time : 30 Minutes

Maximum : 20 marks

Answer All questions.

I. Multiple Choice Questions (20 × 1 = 20)

1. Glomerular filtration pressure is _____
(A) 15 mmHg (B) 25 mmHg
(C) 35 mmHg (D) 65 mmHg
2. Life-saving hormone is _____
(A) Cortisol (B) Aldosterone
(C) Thyroxine (D) Adrenaline
3. Nerve involved in ankle jerk is _____
(A) Femoral nerve (B) Sciatic nerve
(C) Tibial nerve (D) (A) & (B)
4. The malpighian corpuscle consists of two parts namely glomerulus and _____
(A) Proximal convoluted tubule (B) Distal convoluted tubule
(C) Bowman's capsule (D) collecting tubule
5. The specific gravity of urine varies between
(A) 1.04 to 1.09 (B) 1.04 to 1.05
(C) 1.03 to 2.02 (D) 1.06 to 1.08

6. The expanded lower part of hair follicle is :
(A) Cuticle (B) Hair bulb
(C) Shaft (D) Hair
7. The process of rupture of Graffian follicle is
(A) Fertilization (B) Ovulation
(C) Implantation (D) Menstruation
8. Regulation of blood calcium and phosphate level is done by :
(A) Parathyroid hormone (B) Thyroxine
(C) Glucagon (D) Growth hormone
9. Sebaceous glands are situated at side of _____
(A) Hair follicle (B) Thick skin
(C) Both (A) & (B) (D) None of these
10. pH of sweat is _____
(A) 3.8-6.5 (B) 2.5-4
(C) 3-6 (D) 2-8
11. The glands which start functioning at the time of puberty are _____
(A) Eccrine glands (B) Apocrine gland
(C) Sebaceous gland (D) Sweat gland
12. Nerve fibre arising from brain are called _____
(A) Spinal nerve fiber (B) Motor nerve fiber
(C) Cranial nerve fiber (D) Sensory nerve fiber
13. Anterior pituitary gland develops from _____
(A) Endodermal (B) Ectodermal
(C) Neuroectodermal (D) Mesodermal

14. Gonadotrophins are _____
(A) Follicle stimulating hormone (B) Luteinizing hormone
(C) Both (A) & (B) (D) Prolactin
15. Heat regulating centers lies in the _____
(A) Medulla (B) Pons
(C) Midbrain (D) hypothalamus
16. The loss of sense of smell is known as _____
(A) Anosmia (B) Parosmia
(C) Hyperosmia (D) Hyposmia
17. Average weight of pituitary gland is :
(A) 0.1gm (B) 0.5gm
(C) 1gm (D) 2gm
18. It is largest organ of the body :
(A) Liver (B) Heart
(C) Brain (D) Skin
19. The most important function of the Kidney is _____
(A) Excretion (B) Homeostasis
(C) Temperature regulation (D) Renin secretion
20. Steroid hormones are secreted by _____
(A) Thyroid gland (B) Parathyroid
(C) Adrenal cortex (D) Thymus
- _____