

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

[MBBS 1123]

NOVEMBER 2023

Sub. Code : 6053

M.B.B.S. DEGREE EXAMINATION
(For the candidates admitted from the Academic Year 2019-2020)**FIRST YEAR – (CBME)**
PAPER I – PHYSIOLOGY
*Q.P. Code: 526053***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.

III. Multiple Choice Questions:**(20 x 1 = 20)**

1. Which of the following cellular organelle contain oxidases?
A) Mitochondria B) Golgi Apparatus C) Lysosomes D) Peroxisomes
2. Which of the following cytoskeletal protein serve as conveyor belts for the intracellular transport of vesicles and granules?
A) Microfilament B) Intermediate filament C) Microtubule D) Desmin filaments
3. Which control mechanism operates during rapid movements of the body?
A) Positive feedback B) Negative feed back
C) Vicious Cycle D) Feed-forward control
4. Which of the following promotes the rouleaux formation?
A) Albumin B) Thrombin C) Fibrinogen D) Prothrombin
5. Hypersegmented Neutrophils are seen in
A) Hemolytic anemia B) Iron deficiency anemia
C) Megaloblastic anemia D) Aplastic anemia
6. A type of white blood cell in the alveoli of lungs
A) Littoral cells B) Dust cells C) Histiocytes D) Kupffer cells
7. Which of the following drugs would likely alleviate myasthenia gravis patient's symptoms?
A) Atropine B) Cholinesterase C) Curare D) Neostigmine
8. The calcium-binding protein that plays a key role in the regulation of smooth muscle cell contraction is
A) Dystrophin B) Calmodulin C) Troponin C D) Calcineurin
9. Which of the following is not true regarding Type I skeletal muscle fibers?
A) They are slow muscle fibers B) They have high glycolytic capacity
C) They contain myoglobin D) There are numerous mitochondria

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10. The proenzyme pepsinogen is secreted mainly from which of the following structures?
A) Acinar cells of the pancreas B) Ductal cells of the pancreas
C) Epithelial cells of the duodenum D) Gastric glands of the stomach
11. The following are the functions of bile salts except
A) Reduce the surface tension
B) Responsible for emulsification of fat
C) Fats are converted into fatty acids and glycerol
D) Form micelles
12. The myenteric plexus of the oesophagus is deficient at the 'Lower Esophageal Sphincter' in which of the following condition ?
A) Gastro oesophageal reflux disease B) Achalasia cardia
C) Aerophagia D) Hirshsprung's disease
13. Which is the fundamental mechanism generating hypertonicity in the renal medullary interstitium?
A) Active transport of NaCl in thick ascending limb
B) Action of ADH in the collecting ducts
C) Passive recirculation of NaCl in the medullary interstitium
D) Urea permeability of collecting ducts
14. Most important buffer system present in the distal convoluted tubule is
A) Bicarbonate B) Phosphate C) Protein D) Ammonia
15. Angiotensin II causes all of the following except
A) Stimulation of thirst B) Aldosterone secretion
C) Increased ADH secretion D) Vasodilation
16. Metabolic syndrome of obesity includes all except
A) Hyperinsulinemia B) Hyperlipidemia
C) Accelerated atherosclerosis D) Decreased serum insulin levels
17. The binding of iodine with the thyroglobulin molecule is called
A) Iodide trapping B) Oxidation of the Iodide Ion
C) Organification D) Coupling
18. Sheehan syndrome is post partum necrosis of
A) Pancreas B) Pineal gland C) Pituitary gland D) Adrenal gland
19. In females, the first event during puberty is
A) Thelarche B) Pubarche C) Menarche D) Adrenarche
20. Which of the following inhibits synthesis and secretion of prolactin by lactotropes ?
A) Somatostatin B) Dopamine C) Oestrogen D) Oxytocin.

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