

Q.P. CODE: MB2019105
KALOJI NARAYANA RAO UNIVERSITY OF
HEALTH SCIENCES
WARANGAL, TELANGANA STATE - 506 002
MBBS FIRST YEAR SUPPLEMENTARY
EXAMINATIONS: FEBRUARY, 2024
PHYSIOLOGY
PAPER - I
(NEW SCHEME)

Time: 3 Hours

Max. Marks: 100

Note: Answer all questions

Multiple Choice Questions:

Give Diagrammatic representation wherever necessary

1. Starling's law of the heart 10 X 1=10

- a) Does not operate in the failing heart
- c) Explains the increase in heart rate produced by exercise
- b) Does not operate during exercise
- d) Explains the increase in cardiac output that occurs when venous return is increased

2. The second heart sound is caused by

- a) Closure of the aortic and
-

pulmonary valves

- c) Ventricular filling
 - b) Vibrations in the ventricular wall during systole
 - d) Closure of the mitral and cuspid valves
3. The most potent vasoconstrictor is:
- a) Endothelin I
 - c) Norepinephrine
 - b) Angiotensin II
 - d) Vasopressin
4. The plasma concentration at which a particular substance begins to appear in the urine is the:
- a) Transport maximum (T_m)
 - c) Filtered load
 - b) Fractional excretion
 - d) Renal threshold
5. Normal desire for micturition is felt when the amount of urine collected in the bladder is
- a) 20-30ML
 - c) 300-400ML
 - b) 50-100ML
 - d) 1000-1500ML
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6. Bile acids are synthesized from
- Cholesterol
 - Bilirubin
 - Amino acids
 - Protein
7. ESR is increased in all of the following except
- Pregnancy
 - Sickle cell anaemia
 - Tuberculosis
 - Iron deficiency anaemia
8. The Enzyme which activates Apoptosis is
- Caspases
 - Carboxylase
 - Ribonucleases
 - Transaminase
9. Active transport processes
- Are often referred to as pumps
 - Most used processes to move substances through the cell membrane
 - Help transport of substances along the electrochemical gradient
 - Always use the energy obtained from transport of other substances

10. Major sources of Ammonia production in renal tubules

- a) Deamination of Glutamine
- b) Deamination of Glutamic Acid
- c) Deamination of other amino acids, glycine, asparagine.
- d) Comes directly from Arterial blood alanine

Essay/ Long Answer Questions: 2 X 15=30

11. Describe in detail the genesis of respiration and explain the chemical factors

regulating the respiration.

12. A middle aged male with three sons diagnosed with Haemophilia

- a) Define Haemophilia and list out the clotting factors
- b) Explain in detail the mechanism of coagulation
- c) Will the children inherit the disease. If not explain why.
- d) Explain in brief BT and CT.

(7+8)

(2+2+6+3+2)

Short Answer Questions: 7 X 6 = 42

13. Short term regulation of blood pressure.

14. Explain the conducting system of heart with labelled

diagram. What is the

importance of AV nodal delay?

15. Mechanism of gastric acid secretion.
16. Determinants of coronary circulation.
17. Describe professional qualities of a physician.
18. Functions of Plasma Proteins.
19. Discuss the various feedback control mechanisms of body. Explain with the help of examples.

Very Short Answer Questions: 6 X 3 = 18

20. Define uniport, symport and antiport with examples
21. Defecation reflex.
22. Compliance of lung.
23. Windkessel vessels and resistance
24. Molecular motors
25. Sham feeding.
