

**Q.P. CODE:503-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – JANUARY, 2022

FIRST M.B.B.S. EXAMINATION

PHYSIOLOGY

PAPER-I

Time : 2 ½ Hours

Max. Marks : 80

Note: Answer all questions

Illustrate your answers with suitable diagrams

- 1) With the help of a suitable diagram, describe the O<sub>2</sub>-Hb dissociation curve and mention two factors shifting the curve to right. Enumerate four special features of pulmonary circulation. What is Haldane effect? (6+2+4+3)

- 2) Define systolic and diastolic blood pressure and give their normal values. Explain the baroreceptor reflex in response to decreased blood pressure.

SHORT ANSWER QUESTIONS:

5X4=20

- 3) hypotension  
4) Facilitated diffusion  
5) Mechanism of humoral immunity  
6) Megaloblastic anemia  
7) Mechanism of HCl secretion from stomach

WRITE BRIEFLY ON:

5X2=10

- 8) Regulation of pancreatic secretion Mechanism and function of peristalsis and segmental  
9) contraction of intestine  
10) A new born male presented with anemia, jaundice and generalized edema. His blood group was AB+ and the mother's blood group was A-. Three years back his sister was born and she was normal with blood group of A+.
- a) What is your provisional diagnosis?  
b) What is the cause of anaemia?  
c) How will you treat this condition?





- d) How could you have prevented these symptoms?
- 11) Counter current multiplier Mechanism of glucose absorption in renal tubule
- 12) A 70 year old male presented with breathlessness on exertion. On examination, his pulse was 110/min and he had edema in the ankle and feet. The liver and spleen were found to be enlarged and jugular venous pulse was raised.
- a) What is your probable diagnosis?
- b) Explain the pathophysiology of edema in this condition
- c) Mention one drug treat this condition and write its mechanism of action.

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