PAPER CODE: MB2019105

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FIRST MBBS DEGREE EXAMINATIONS: MARCH, 2022

PHYSIOLOGY (NEW REGULATION) PAPER-I

Time: 3 Hours **Max Marks: 100**

Note: Answer all questions.

Give Diagrammatic representation wherever necessary.

Write Long Answer on the following Questions: **2 X15 = 30**

1. An 18 year old boy met with an accident and came to the hospital with severe bleeding. History revealed that even on minor injuries he suffered from severe bleeding repeatedly and had similar history in the family.

a) What is the likely diagnosis?

b) What are the physiological mechanisms of blood coagulation in our body?

c) Name any three anticoagulants with their mechanism of action.

d) What is the pathophysiology of this disease condition and how is it treated?

(1+8+3+3)

2. A 65year old male person, a chronic smoker came to the hospital with a history of dyspnoea with cough and fever. He had similar episodes of cough and breathlessness since 5 years. On examination he had wheeze and crepitations with FEV1< 60%

a) What is the most probable diagnosis?

b) Define all the lung volumes and capacities with a neat diagram.

c) What is the importance of Functional residual capacity? What are the methods of estimating it?

d) Define FEV1. Give its normal value. How does it vary in obstructive and restrictive lung disorders? (1+5+5+4)

Write Short Answer on the following Questions: 8X5=40

3. Explain the renal handling of sodium with a neat diagram.

4. Describe factors regulating coronary circulation

5. Draw a neat labelled Electrocardiogram. Name the waves and intervals. What is the significance of ST segment?

6. Enumerate and describe professional qualities and roles of a physician.

7. Define and classify active transport. Explain secondary active transport with examples.

8. Describe the cardiovascular changes during muscular exercise.

9. Explain the large intestinal movements. Write a note on Hirschsprung's disease.

10. Oxygen dissociation curve and factors affecting it.

Write Very Short Answer on the following Questions: 10X3=30

11. Erythroblastosis foetalis.

12. Succus entericus.

13. Phonocardiogram in relation to different phases of cardiac cycle.

14. Write the morphological classification of anaemia with example for each.

15. Define Acclimatization and explain the physiological changes that occur at high altitude

16. Functions of surfactant.

17. Mention the layers of respiratory membrane with diagram. Mention Fick's law of diffusion.

18. Oedema. Mention the starling forces that help prevent oedema normally.

19. Regulation of renin secretion.

20. List 6 GI hormones.

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