



RAN-2406120901010501

M. D. (Physiology) Examination September - 2025

Paper - I

Time: 3 Hours]

[Total Marks: 100

સૂચના : / Instructions

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

M. D. (Physiology)

Name of the Subject :

Paper - I

Subject Code No.: 2406120901010501

Seat No.:

Student's Signature

- (2) All questions are compulsory except where choice is given.
- (3) Write legible and to the point.
- (4) Draw diagrams wherever necessary.
- (5) Figures on the right indicate marks.

- Q. 1.** Describe the evolutionary development of Respiratory organs and gaseous exchange from unicellular organisms to human being. (25)
- Q. 2.** Describe the principles of hemodynamics in circulation. Enlist the determinants of blood flow using Poiseuille's law. Differentiate between laminar and turbulent blood flow in a blood vessel. (25)
- Q. 3.** Enumerate various proposed theories of Aging. Describe the role of free radicals and oxidative stress on aging. Add a note on antioxidant supplements. (26)
- Q. 4.** Write short notes on : (8×3=24)
- a. Ivan Pavlov's contribution to Physiology.
 - b. Apoptosis- Mechanism and its role in health and disease. Explain citing examples.
 - c. Mechanism of concentration of urine.