

# Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 22-Nov-2024

Time: Three Hours

Max. Marks: 100 Marks

## HUMAN PHYSIOLOGY (RS5)

Q.P. CODE: 2732

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

### LONG ESSAYS (Second Question Choice)

2 x 10 = 20 Marks

1. Draw a labeled diagram of neuromuscular junction and explain the sliding filament theory of muscle contraction.
2. Describe the conducting system of human heart with labelled diagram. Add a note on ionic basis of each phase of ventricular action potential.

**OR**

Name and locate the respiratory centres in the brain. Explain the neural regulation of respiration.

### SHORT ESSAYS (Question No 3 & 12 choice)

10 x 5 = 50 Marks

3. Explain accommodation reflex.

**OR**

Mention the component of middle ear. Add a note on impedance matching.

4. Describe the metabolic functions of growth hormone.
5. Write the types of functions of neuroglia.
6. Describe the circulation and functions of cerebrospinal fluid.
7. Define deglutition. Explain the second phase of deglutition.
8. Draw and label normal lead – II ECG. Write the physiological basis of each wave.
9. Define and classify hypoxia. Explain anyone.
10. Explain the tubule-glomerular feedback mechanism of regulation of GFR (Glomerular Filtration Rate).
11. Describe the mechanism of regulation of temperature by hypothalamus.
12. Write the cause and physiological basis for the symptoms of Cushing's syndrome.

**OR**

Describe spermatogenesis. Add a note on cause of male infertility.

### SHORT ANSWERS

10 x 3 = 30 Marks

13. Write a note on active transport.
14. Draw and label nephron.
15. List the complications of mismatched blood transfusion.
16. Write the functions of juxtaglomerular apparatus.
17. Write the functions of Bile.
18. Write a note on ESR (Erythrocyte Sedimentation Rate) with normal value.
19. Write the physiological basis of contraception of IUD's (Intra Uterine Derive).
20. What is Presbyopia? How is it corrected?
21. Define reflex action. Mention the components of reflex arc.
22. Write a note on Haemophilia.

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