

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)
M.B.B.S. PHASE - I Degree Examination – January-2010

Time : 3 Hrs.

[Max. Marks : 100]

PHYSIOLOGY - Paper I

*Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.*

LONG ESSAY

2 X 10 = 20 Marks

1. Define cardiac output. Discuss in detail various means by which it is regulated.
2. Describe the mechanism of secretion of Hydrochloric acid in the stomach. Discuss its hormonal regulation.

SHORT ESSAY

10 X 5 = 50 Marks

3. Define and describe facilitated diffusion
4. Cell mediated immunity
5. Heparin
6. Plasma proteins
7. Dyspnoeic index
8. Surfactant and its clinical importance
9. Respiratory centres
10. Role of Vasa recta in urine concentration
11. Autoregulation in kidney
12. Oxygen debt

SHORT ANSWERS

10 X 3 = 30 Marks

13. Draw and label normal arterial pulse tracing
14. Mention the types of movement seen in large intestine
15. Differences between active and passive transport
16. Define Edema and mention its types
17. Hypoxia and its types
18. Significance of APUD cells
19. Various types of periodic breathing
20. What is obstructive jaundice?
21. Vitamins needed to treat megaloblastic anemia
22. Heart sounds and its causes.



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PHYSIOLOGY - Paper II

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LONG ESSAY

2 X 10 = 20 Marks

1. Describe the endometrial changes during the menstrual cycle. What is the nature of endometrium in anovulatory cycles? What is corpus luteum and what are its functions?
2. Describe the ionic basis of the photoreceptor mechanism. What is the Young-Helmholtz theory of colour vision? What is colour blindness and how is it inherited?

SHORT ESSAY

10 X 5 = 50 Marks

3. Name the hormones secreted by the adrenal gland. What is Cushing's syndrome?
4. Name the hormones involved in calcium metabolism. What is Tetany?
5. List the nuclei of basal ganglia. Describe their connections.
6. Gamma motoneurons
7. Gating of pain
8. Cingulate gyrus
9. Regulation of thyroid function
10. Organ of Corti
11. $\text{Na}^+ - \text{K}^+$ -pump
12. Post-synaptic potentials

SHORT ANSWERS

10 X 3 = 30 Marks

13. Human chorionic gonadotropin
14. All-or-none law
15. Pancreatic C-peptide
16. Second messengers
17. Inverse stretch reflex
18. Associative learning
19. Saltatory conduction
20. Dwarfism
21. Classification of muscle fibres
22. Glucose transporters



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PHYSIOLOGY - Paper I

Q.P Code : 103 - SDUU

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

1. What are excitatory and specialized conductive system of heart and describe the propagation of cardiac impulse
2. Describe the mechanism of production of concentrated urine. Add a note on diabetes insipidus.

SHORT ESSAY

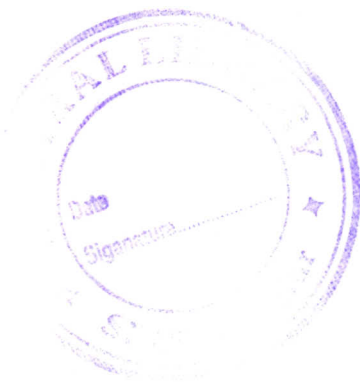
10 X 5 = 50 Marks

3. Counter current mechanisms
4. Endocytosis
5. Pulmonary compliance
6. Micturition
7. Proteolytic enzymes of pancreas
8. Sino-aortic reflex
9. Acclimatization to high altitude
10. Lymphocytes
11. Functions of plasma proteins
12. Saliva

SHORT ANSWERS

10 X 3 = 30 Marks

13. Types of Haemoglobin
14. Mention any 4 gastro intestinal tract hormones
15. Oxyntic cells
16. Movements of the small intestine
17. Central venous pressure
18. Blood substitutes and plasma expanders
19. Fibrinolytic system
20. Explain triple response
21. What is the normal plasma osmolarity?
22. Explain Hering-Breuer inflation reflex



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PHYSIOLOGY - Paper II

Q.P Code : 104 - SDUU

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LONG ESSAY

2 X 10 = 20 Marks

1. Enumerate the Thyroid Hormones. Describe the actions of Thyroid Hormones.
2. Trace the Visual pathway. What is Myopia?

SHORT ESSAY

10 X 5 = 50 Marks

3. Oxygen Debt.
4. Tetany
5. Sensory Neural deafness
6. Factors of Male infertility
7. Glucagon
8. Excitatory synapse
9. Single and multiunit smooth muscle
10. Cerebrospinal fluid
11. Nucleus of Tractus Solitarius
12. Functions of Placenta

SHORT ANSWERS

10 X 3 = 30 Marks

13. Dysarthria
14. Hypothermia
15. Isometric contraction
16. Red muscle and White muscle
17. Rinne's Test
18. Conditioned reflex
19. Secretions of Skin
20. Stereognosis
21. Neuron
22. Romberg's Sign

