

R.S -6-

Q.P Code : 103

**SRI DEVARAJ URS UNIVERSITY**

(Formerly known as Sri Devaraj Urs Academy of Higher Education and Research)

**1<sup>st</sup> M.B.B.S. PHASE - I Degree Examination – July 2009**

**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. Describe in detail the chemical regulation of respiration.
2. Define cardiac cycle and describe in detail the ventricular events occurring in a cardiac cycle.

**SHORT ESSAY**

**10 X 5 = 50 Marks**

3. Draw an ECG and mention the cause of each wave.
4. Hormonal regulation of pancreatic juice secretion.
5. Transfusion reactions.
6. Intrapleural pressure.
7. Special features of renal circulation.
8. Functions of large intestine .
9. Water reabsorption in renal tubules.
10. Cephalic phase of gastric juice secretion.
11. Humoral immunity.
12. Refractory period in cardiac muscle.

**SHORT ANSWERS**

**10 X 3 = 30 Marks**

13. Ionic basis of resting membrane potential and action potential.
14. Frank starling law.
15. Erythroblastosis foetalis.
16. Functions of plasma proteins.
17. Functions of surfactant.
18. Mention the anticoagulants used in vivo and their mechanism of action.
19. Law of gut
20. Dyspnoeic index.
21. Mucosal barrier.
22. Mention the hormones acting on kidney and their site of action.

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Q.P Code : 104

Time : 3 Hrs.

[Max. Marks : 100]

**PHYSIOLOGY - Paper II**

*Your answers should be specific to the questions asked.*

*Draw neat labeled diagrams wherever necessary.*

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Elucidate the ovarian and uterine changes during the female reproductive cycle and their hormonal basis.
2. Explain how sound waves are transduced into neural signals and perceived as a sensation of sound.

**SHORT ESSAY**

**10 X 5 = 50 Marks**

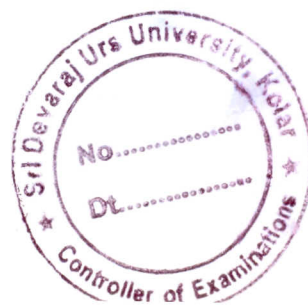
3. Calcitonin.
4. Selye's stress syndrome.
5. Hormones and prohormones secreted by liver.
6. Sliding myofilament theory.
7. Ionic basis of resting transmembrane potential.
8. Muscle proprioception.
9. Pathway for dull pain.
10. Function of globus pallidus.
11. Papez circuit.
12. Taste pathway.

**SHORT ANSWERS**

**10 X 3 = 30 Marks**

13. Melatonin.
14. Prolactin.
15. Neuroglia.
16. Frank starling law.
17. Hair growth cycle.
18. Inferior olive.
19. Control of food intake.
20. Induction of sleep.
21. Vertigo.
22. Wald's visual cycle.

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**Time : 3 Hrs.**

**[Max. Marks : 100]**

## **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. Describe mechanics of normal respiration. Add a note on respiratory distress syndrome.
2. Define cardiac output. Describe how different factors contribute for regulation of cardiac output. Add a note on measurement of cardiac output.

### **SHORT ESSAY**

**10 X 5 = 50 Marks**

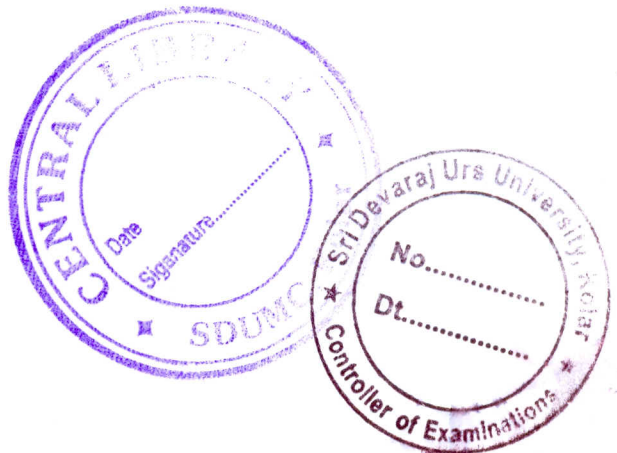
3. Glucose reabsorption in renal tubules.
4. Origin and spread of Cardiac Impulse.
5. Role of kidney in pH regulation .
6. Bleeding and clotting disorders.
7. Composition and functions of Lymph.
8. Central and Peripheral chemoreceptors.
9. Total Peripheral resistance.
10. Residual volume in lungs and its measurement.
11. Hormones acting on renal tubules and their actions.
12. Heat loss and heat gain mechanisms.

### **SHORT ANSWERS**

**10 X 3 = 30 Marks**

13. Micturition reflex .
14. Functions of Thrombocytes.
15. Renal plasma clearance of (PAH) Para amino hippuric acid and urea.
16. Special conducting system in Mammalian heart.
17. Oxygen dissociation curve and shift to the right .
18. ECG (electrocardiogram) from aVR lead & explain ventricular complex in it.
19. Blood indices and their significance .
20. Poiseuille's Law.
21. Gastric emptying .
22. Anticoagulants acting in vitro and in vivo.

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## **PHYSIOLOGY - Paper II**

**Q.P Code : 104 - SDUU**

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### **LONG ESSAY**

**2 X 10 = 20 Marks**

1. Name the hormones secreted by thyroid gland. How is thyroxine synthesized?  
Describe the Physiological actions of thyroxine.
2. Describe the structure, connections and functions of cerebellum.

### **SHORT ESSAY**

**10 X 5 = 50 Marks**

3. Middle ear-contents and functions.
4. Referred pain.
5. Functions of limbic system.
6. Contraceptive measures in females.
7. Neuromuscular Junction.
8. Visual pathway.
9. Theories of muscle contraction.
10. Causes of male infertility.
11. Reticular activating system.
12. Glucagon.

### **SHORT ANSWERS**

**10 X 3 = 30 Marks**

13. Hypothermia.
14. Saltatory conduction.
15. Reflex arc.
16. Taste buds.
17. Fetoplacental unit.
18. Physiological amenorrhoea.
19. Myasthenia gravis.
20. Intraocular pressure.
21. Sertoli cells.
22. Olfactory cells.

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