

BLDE UNIVERSITY

May - 2014

PRE-PH.D COURSE WORK EXAMINATION

[Time :1 ½ Hours]

[Max.Marks : 50]

Paper – II BACKGROUND PAPER (PHYSIOLOGY)

QP CODE : 6002

TOPIC: Study on relationship between thyroid hormone and glucose homeostasis among post menopausal diabetic women.

I. Answer the following

5x2=10 marks

1. Functions of Vitamin C
2. Define Menopause
3. Functions of Neutrophil
4. Cretinism
5. Mean arterial pressure

II. Answer ANY FOUR of the following

4x5=20 marks

6. Functions of red blood cells
7. Glucose tolerance test(GTT)
8. Diabetes Incipidus
9. Define Anemia and give its classification.
10. Describe the actions of estrogen

III. Answer ANY TWO of the following

2x10=20 marks

11. Define menstrual cycle. Describe endometrial cycle and role of hormones on it.
12. Enumerate various hormones of thyroid gland. Describe mechanism of synthesis of thyroid hormones. Add a note on hyperthyroidism.
13. Diabetes mellitus- discuss the pathophysiology and treatment.

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Paper – II BACKGROUND PAPER (PHYSIOLOGY)

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TOPIC : Calcium homeostasis in aquired cardiovascular diseases – role of vitamin D and NOS3 pathway-a cross sectional study.

I. Answer the following

5x2=10 marks

1. What is cardiac cycle?
2. What do you mean by cardiac arrest?
3. Name two second messenger.
4. What is Hagen–Poiseuille equation?
5. Name two free radicals.

II. Answer ANY FOUR of the following

4x5=20 marks

6. Write a note on vascular wall tension in relation to Young-Laplace equation
7. QT interval in ECG
8. Calbindin D
9. Hypoxic hypoxia
10. ELISA

III. Answer ANY TWO of the following

2x10=20 marks

11. Describe briefly about the synthesis, regulation and functions of 1,25 DHCC
12. Describe briefly about the causes, evaluation methods and clinical significance of arterial stiffness
13. Describe briefly about the different types of heart diseases

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TOPIC : Oxygen tension, oxidative stress and vascular ageing; A cross sectional study among general population of Vijaypur

I. Answer the following

5x2=10 marks

1. Nitric oxide as a vasodialtor
2. Two factors control heart rate
3. Name two oxidative free radicals
4. Function of J-Receptor
5. Function of cytochrome P-450

II. Answer ANY FOUR of the following

4x5=20 marks

6. Arterial stiffness
7. VEGF
8. Oxidative stress
9. ST elevation in ECG
10. Endothelial function

III. Answer ANY TWO of the following

2x10=20 marks

11. Describe briefly about the long term regulation of blood pressure
12. Describe briefly about the chemical regulation of respiration
13. Describe briefly about the autonomic function tests

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QP CODE : 6002

Duration : 1 ½ Hrs

Max. Marks : 50

I Answer the following

5X2=10 marks

1. List the consequences of bilateral undescended testes in adults
2. Physiological amenorrhoea
3. Enumerate functions of Sertoli cells
4. Define sperm capacitation and give normal sperm count.
5. Milk ejection reflex

II Answer ANY FOUR of the following

4X5=20 marks

6. Male fertility
7. Abnormalities of secretions of ovaries
8. Feedback oscillation of Hypothalamo pituitary ovarian system
9. Histopathological assay of apoptosis
10. Physiologic role of Vitamin C and E

III Answer ANY TWO of the following

2X10=20 marks

11. Discuss epidemiology of effects of exposure to radio frequency on health
12. Discuss endometrial changes during normal menstrual cycle. Explain their hormonal basis.
13. Discuss physiologic anatomy of male sexual organs. Explain hormonal factors that influence spermatogenesis. Add a note on abnormal spermatogenesis.

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PAPER - II: BACKGROUND PAPER (PHYSIOLOGY)

QP CODE : 6002

Duration : 1 ½ Hrs

Max.Marks : 50

I. Answer the following

5 x 2 = 10 Marks

1. Structural and functional differences between fetal and adult hemoglobin.
2. Body Mass Index.
3. Postural Hypotension.
4. Define the terms and give normal values of
 - a. End Diastolic Volume
 - b. End Systolic Volume.
5. Permissive action of a hormone.

II. Answer ANY FOUR of the following

4 x 5 = 20 Marks

6. Factors affecting metabolic rate.
7. Cyclic AMP.
8. Nitric Oxide.
9. Insulin Receptor.
10. Visfatin.

III. Answer ANY TWO of the following

2 X 10 = 20 Marks

11. Discuss Pathophysiology and consequences of obesity.
12. Discuss medullary control of cardiovascular system.
13. Discuss hormonal regulation of blood glucose level. Add a note on features of Diabetes mellitus.