

[KM 906]

Sub. Code : 5312

BACHELOR OF PHYSIOTHERAPY DEGREE
EXAMINATION.

Second Semester

(New Modified Regulations)

(Common to BPT and BOT)

Paper II — PHYSIOLOGY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Write essay on : (2 × 15 = 30)

(1) Draw a neat labeled diagram of the Cortico Spinal tract. Trace the path way and mention the effects at different level of lesion.

(2) Define Tone. How is Tone regulated and what are its variations in hemiplegia, poliomyelitis and cerebellar lesion?

II. Write short notes : (10 × 5 = 50)

- (a) Active transport.
- (b) Stages of erythropoiesis.
- (c) Rh incompatibility.
- (d) Long term regulation of blood pressure.
- (e) What is Hypoxia? Write the different types with examples.
- (f) What is Glomerular Filtration Rate? How is it measured?
- (g) Diabetes mellitus.
- (h) Normal blood calcium level and the hormones regulating it.
- (i) Name the different pregnancy tests. Explain immunological test.
- (j) Draw a diagram of myoneural junction. What is myasthenia gravis?

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**BACHELOR OF PHYSIOTHERAPY DEGREE
EXAMINATION.**

(Common to All Regulations)

(Common to BPT and BOT Examinations)

PHYSIOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay questions : (2 × 15 = 30)

(1) Draw a neat labelled diagram of connections of cerebellum. Discuss its connections and functions.

(2) How is the process of breathing regulated? Add a note on Artificial respiration.

II. Write Short notes :

(10 × 5 = 50)

- (a) Lymph
- (b) ECG (Electro cardiogram)
- (c) Oxygen debt
- (d) Contraceptive devices
- (e) Micturition
- (f) Synaptic transmission
- (g) Neuro muscular junction
- (h) Tetany
- (i) Biliary secretion
- (j) Visual pathway.

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PHYSIOLOGY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Draw suitable diagrams wherever necessary.

Answer ALL questions.

I. Write essay :

1. Describe the mechanism of skeletal muscle contraction. Add a note on isometric and isotonic contraction. (20)

2. Define cardiac output. Discuss the factors regulating cardiac output and methods to measure it. (15)

3. Describe the neural control of respiration. (15)

II. Write short notes :

(6 × 5 = 30)

- (a) Structure and functions of platelets
 - (b) Gastric emptying
 - (c) Types of Nephrons
 - (d) Heart sounds
 - (e) Functions of estrogen
 - (f) Spinothalamic tract
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PHYSIOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Write Essay :

(1) How is the process of breathing regulated? (15)

(2) Discuss Neuro-Muscular junction. (15)

II. Write Short notes : (10 × 5 = 50)

(a) Functions of thyroxine

(b) Hypoxia

(c) Functions of bile

(d) Contraceptive devices

(e) Reflex action

(f) Effect of exercise on cardio-respiratory system

(g) Micturition reflex

(h) Composition and functions of pancreatic juice

(i) Functions of white blood corpuscles

(j) Functions of placenta.

FEBRUARY 2008

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BACHELOR OF PHYSIOTHERAPY DEGREE
EXAMINATION.

(Common to All Regulations)

(Common to BPT and BOT Examinations)

PHYSIOLOGY

Q.P. Code : 746112

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

(1) Describe the ovarian and uterine (menstrual)
cycles. (15)

(2) Describe the functions of the hormones
secreted by the pituitary gland. (15)

II. Write short answers on : (10 × 5 = 50)

- (a) Cardiac cycle
- (b) Reflex Arc
- (c) Hypoxia
- (d) Lung volumes and capacities
- (e) Hemolytic disease of the New born
- (f) Deglutition
- (g) Blood groups
- (h) Cerebrospinal fluid
- (i) Neuromuscular junction
- (j) Micturition.

AUGUST 2008

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**BACHELOR OF PHYSIOTHERAPY DEGREE
EXAMINATION.**

(Common to All Regulations)

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PHYSIOLOGY

Q.P. Code : 746112

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

1. Define cardiac output. Describe one method of determining the cardiac output. How the cardiac output is regulated? (2 + 3 + 10 = 15)

2. Describe the neuro-muscular junction. Explain the physiology of the neuro-muscular junction. Add a note on the neuro-muscular blocking agents. (3 + 8 + 4 = 15)

AUGUST 2008

II. Write short notes on : (10 × 5 = 50)

1. Nerve supply of the urinary bladder.
2. Functions of plasma proteins.
3. Muscle spindle.
4. Heart sounds.
5. Oxygen dissociation curve.
6. Composition of gastric juice.
7. Tetany.
8. Corpus luteum.
9. Upper motor neurone lesion.
10. Accomodation Reflex for near vision.

III. Write short answers on : (10 × 2 = 20)

1. Anticoagulant.
2. Lung volumes.
3. Glomerular filtration rate.
4. Deglutition.
5. Contractile proteins.

6. Testosterone.

7. Name the factors maintaining blood pressure.

8. Tract carrying the sensation of pain and temperature.

9. Growth hormone.

10. Myasthenia gravis.