

SV 503]

April-1998

Sub. Code : 4003

FIRST M.B.B.S. DEGREE EXAMINATION

(Non-Semester)

(Revised Regulations)

Paper IV- PHYSIOLOGY INCLUDING BIOPHYSICS - II

Time : Three hours

Maximum : 50 marks

Two and a half hours

Sections A and B : 35 marks

for section A

Section C : 15 marks

Section C must be answered separately

on the answer sheet provided

Answer ALL the questions

Draw suitable diagrams wherever necessary

SECTION A

1. Draw a diagram of the cross section of spinal cord showing the ascending and descending tracts. Describe the effects of complete transaction of spinal cord at upper thoracic level. (4+6=10)

2. Write briefly on:

- (a) Spirometer and its uses
- (b) Describe the heart sounds
- (c) Clinical features of cerebellum lesion
- (d) Ataxia
- (e) Mountain sickness
- (f) Factors determining normal blood pressure
- (g) Ventilation perfusion ratio and its significance
- (h) Tests for hearing and its usefulness
- (i) Dark adaptation of Eye
- (j) E.E.G. (Electro Encephelo Gram)

NOVEMBER '98

SM 503]

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Paper IV - PHYSIOLOGY INCLUDING BIO-PHYSICS - II

Time : Three hours

Maximum : 50 marks

**Two and a half hours
for Sections A and B**

Sections A and B : 35 marks

Section C : 15 marks

**Section C must be answered separately on the answer sheet
provided as per instructions on the first page.**

Answer ALL the questions

Draw suitable diagrams wherever necessary

SECTION A

**1. Trace the course of corticospinal tract from its origin to. Explain briefly the
functions and effects of the tract. (10)**

2. Write briefly on: (10 x 2½ = 25)

- (a) Ventilation perfusion ration and its significance**
- (b) Factors that affect the inotropic of the heart**
- (c) The regulation of cerebral blood flow**
- (d) Physiological basis of E.E.G. and its uses**
- (e) Draw a diagram of auditory pathway and mention of auditory cortex**
- (f) Brown Sequard Syndrome**
- (g) Trace the pathway of taste sensation**
- (h) Tests for filed of vision and blind spot**
- (i) Features of Parkinsonism**
- (j) Compare the effects of exercise in sedentary individual and trained
athlete on heart rate and stroke volume**

April-1999

[SG 503]

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(Non-Semester)

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Paper IV — PHYSIOLOGY INCLUDING
BIOPHYSICS — II

Time : Three hours Maximum : 50 marks

Two and a half hours Section A : 35 marks

Section A Section C : 15 marks

Section C must be answered separately on the answer
sheet provided.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

SECTION A — (35 marks)

1. Define the terms — Cardiac output and Cardiac
Index. What are the factors that regulate cardiac
output? (10)

2. Write briefly on : (10 × 2½ = 25)

(a) Explain briefly the mechanism of Periodic
breathing with two examples

(b) Blood brain barrier

(c) Functions of CSF

(d) Colour constancy

(e) Conducting tissues of the heart

(f) Measurement of Functional Residual capacity

(g) Hamburger's shift

(h) Referred pain

(i) Tests for hearing and their significance

(j) Olfactory pathway.

[KA 503]

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Paper IV — PHYSIOLOGY INCLUDING
BIO-PHYSICS — II

Time : Three hours Maximum : 50 marks
Two and a half hours Section A : 35 marks
for Section A Section C : 15 marks

Section C must be answered separately on the
answer sheet provided.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

SECTION A

(PHYSIOLOGY — II)

1. Define blood pressure. Discuss how normal systemic arterial blood pressure is regulated. (10)
2. Write briefly on: (10 × 2½ = 25)
 - (a) Cutaneous triple response
 - (b) Cough reflex
 - (c) Chloride shift phenomenon
 - (d) Carotid body
 - (e) Astrocytes

- (f) Paradoxical sleep
- (g) Aphasia
- (h) Pathway for taste
- (i) Cochlear microphonic potentials
- (j) Decerebrate rigidity.

April-2000

[KB 503]

Sub. Code : 4003

FIRST M.B.B.S. DEGREE EXAMINATION

(Non-Semester)

(Revised Regulations)

Paper IV — PHYSIOLOGY INCLUDING
BIO-PHYSICS — II

Time : Three hours

Maximum : 50 marks

Two and a half hours
for Section A.

Section A : 35 marks

Section C : 15 marks

Section C must be answered separately on the answer
sheet provided.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

SECTION A

(PHYSIOLOGY — I)

1. What is Acclimatization? What are the effects of
high altitude on Respiratory system, cardiovascular
system & Blood. (2 + 8 = 10)

2. Write briefly on : (10 × 2½ = 25)

(a) ST segment.

(b) Surfactant.

(c) Asteroiognosis.

(d) Taste bud.

(e) Light Reflex.

(f) Pace maker Potentials.

(g) Sino-aortic mechanism.

(h) Chorea.

(i) Organ of Corti.

(j) Occlusion & Subliminal fringe.

April-2000

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SECTION B

FIRST M.B.B.S. DEGREE EXAMINATION.

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Paper IV — PHYSIOLOGY INCLUDING
BIO-PHYSICS — II

Time : Three hours Maximum : 100 marks
Two and a half hours Sec. A & Sec. B : 70 marks
for Sec. A & Sec. B. Section C : 30 marks

Separate answer books must be used
for Sections A and B.

Section C must be answered separately on the answer
sheet provided as per the instructions on the first page.

Draw labelled diagrams wherever necessary.

Answer ALL questions.

SECTION A

1. What are chemoreceptors? Describe their role in the chemical control of respiration. Add a note on Cheyne-Stokes breathing. (15)
2. Write short notes on :
 - (a) Electrocardiogram in Lead II.
 - (b) Cardiac output.
 - (c) Timed Vital Capacity.
 - (d) Baroreceptors. (4 × 5 = 20)

3. Describe the connections and functions of basal ganglia. Describe the pathophysiology of the characteristic features of the parkinsonian syndrome. (15)

4. Write short notes on :
 - (a) Otolith organs.
 - (b) Olfactory pathway.
 - (c) Colour vision.
 - (d) Organ of corti. (4 × 5 = 20)

October-2000

[KC 503]

Sub. Code : 4003

FIRST M.B.B.S. DEGREE EXAMINATION.

(Non-Semester)

(Revised Regulations)

Paper IV — PHYSIOLOGY INCLUDING
BIO-PHYSICS — II

Time : Three hours
Two and a half hours
for Section A

Maximum : 50 marks
Section A : 35 marks
Section C : 15 marks

Section C must be answered separately on the answer sheet provided as per the instructions on the first page.

SECTION A

1. Define cardiac output. Mention the various methods of determining cardiac output. Describe the mechanism involved in Regulating cardiac output.

(1 + 3 + 6 = 10)

2. Write briefly on :

(10 × 2½ = 25)

(a) Pulmonary surfactant

(b) Composition and Function of Aqueous Humor

(c) Somaesthetic cortex

(d) Outline the functions of middle ear

(e) Referred pain

(f) Blood Brain Barrier

(g) Functions of Reticular Formation

(h) Periodic Breathing

(i) Oxy-Haemoglobin dissociation curve

(j) Functions of the Frontal Cortex.