[LL 503] AUGUST 2017 **Sub.Code :5054**

M.B.B.S. DEGREE EXAMINATION
FIRST YEAR
PAPER IV – PHYSIOLOGY INCLUDING BIO-PHYSICS - II

Q.P. Code: 525054

Time: Three hours **Maximum : 50 Marks**

Answer All Questions

I. Essay: **(1 x 10 = 10)**

1. Define blood pressure. Explain in detail short term regulation of blood pressure. Add a note on hypertension.

II. Write notes on: **(5 x 4 = 20)**

1. Compliance.
2. Hypoxic hypoxia.
3. Pacemaker potential.
4. Stages of sleep.
5. Functions of cerebellum.

III. Short answers on: **(10 x 2 = 20)**

1. Triple response.
2. Bain bridge reflex.
3. Residual volume.
4. Artificial respiration.
5. Functions of middle ear.
6. Features of Parkinsonism.
7. Papez circuit.
8. Name two facilitatory and inhibitory neurotransmitters and their sites of action.
9. Saltatory conduction.
10. Sensations carried by posterior column.

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[LL 503] NOVEMBER 2017 **Sub.Code :5054**

M.B.B.S. DEGREE EXAMINATION
FIRST YEAR
PAPER IV – PHYSIOLOGY INCLUDING BIO-PHYSICS - II

Q.P. Code: 525054

Time: Three hours **Maximum : 50 Marks**

Answer All Questions

I. Essay: **(1 x 10 = 10)**

1. Define hypoxia. Explain in detail the different types of hypoxia. Add a note on hyperbaric oxygen therapy.

II. Write notes on: **(5 x 4 = 20)**

1. Conduction system of heart.
2. Special features of coronary circulation.
3. Vital capacity.
4. Functions of hypothalamus.
5. Properties of synapse.

III. Short answers on: **(10 x 2 = 20)**

1. Reynolds number.
2. Jugular venous pulse.
3. Lead II ECG.
4. Bohr’s effect.
5. Dead space.
6. Functions of somatosensory area.
7. Stretch reflex.
8. REM sleep.
9. Features of dark adaptation.
10. Stapedial reflex.

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[LN 503] AUGUST 2018 **Sub.Code :5054**

M.B.B.S. DEGREE EXAMINATION
FIRST YEAR
PAPER IV – PHYSIOLOGY INCLUDING BIO-PHYSICS - II

Q.P. Code: 525054

Time: Three hours **Maximum : 50 Marks**

Answer All Questions

I. Essay: **(1 x 10 = 10)**

1. Describe the classification, connections and functions of cerebellum.

II. Write notes on: **(5 x 4 = 20)**

1. Triple response.
2. Non-respiratory functions of lungs.
3. Mechanism of receptor potential.
4. Factors regulating cardiac output.
5. Anatomic dead space.

III. Short answers on: **(10 x 2 = 20)**

1. The law of projection.
2. Types of hypoxia.
3. Antegrade amnesia.
4. Draw a normal electrocardiogram (ECG). What is Einthoven's triangle?
5. Respiratory exchange Ratio.
6. Attenuation reflex.
7. Mean arterial pressure.
8. Reynold's number.
9. Astigmatism.
10. Functions of thalamus.

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[LN 503] NOVEMBER 2018 **Sub.Code :5054**

M.B.B.S. DEGREE EXAMINATION
FIRST YEAR
PAPER IV – PHYSIOLOGY INCLUDING BIO-PHYSICS - II

Q.P. Code: 525054

Time: Three hours **Maximum : 50 Marks**

Answer All Questions

I. Essay: **(1 x 10 = 10)**

1. Discuss in detail the neural regulation of respiration.

II. Write notes on: **(5 x 4 = 20)**

1. Ventricular action potential.
2. Tract of Gall and Burdach.
3. Venous return.
4. Lung volumes and capacities.
5. Fetal circulation.

III. Short answers on: **(10 x 2 = 20)**

1. Clinical uses of ECG.
2. P_{50}.
3. Types of deafness.
4. Blood – brain barrier.
5. Anaphylactic shock.
6. Red – green color blindness.
7. Reflex arc.
8. Primary taste sensations.
9. Functions of limbic system.
10. Physiological dead space.

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[LP 503] AUGUST 2019 **Sub.Code :5054**

M.B.B.S. DEGREE EXAMINATION
FIRST YEAR
PAPER IV – PHYSIOLOGY INCLUDING BIO-PHYSICS – II

Q.P. Code: 525054

Time: Three hours **Maximum : 50 Marks**

Answer All Questions

I. Essay: **(1 x 10 = 10)**

1. Describe the optic pathway from the photoreceptors to the visual cortex. Add a note on visual field defects produced by lesions at various levels of the pathway.

II. Write notes on: **(5 x 4 = 20)**

1. Brown – sequard syndrome.
2. Histotoxic hypoxia.
3. Physiology of fetal circulation before and after birth.
4. Special features of coronary circulation.
5. Caisson's disease.

III. Short answers on: **(10 x 2 = 20)**

1. Implicit memory.
2. Stages of sleep cycle.
3. Denervation hypersensitivity.
4. Determinants of force of contraction of heart.
5. Bohr effect.
6. Jugular venous pulse.
7. Endogenous opioids.
8. Mouth to mouth respiration.
9. Heart block.
10. Respiratory distress syndrome of new born.

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[LP 503] NOVEMBER 2019 **Sub.Code :5054**

M.B.B.S. DEGREE EXAMINATION
FIRST YEAR
PAPER IV – PHYSIOLOGY INCLUDING BIO-PHYSICS - II

Q.P. Code: 525054

Time: Three hours **Maximum : 50 Marks**

Answer All Questions

I. Essay: **(1 x 10 = 10)**

1. Describe the origin, course, termination and functions of pyramidal tract. Write a note on upper motor lesion.

II. Write notes on: **(5 x 4 = 20)**

1. Hypoxic Hypoxia.
2. Thalamic syndrome.
3. Surfactant.
4. Sino aortic reflex.
5. Myocardial Infarction.

III. Short answers on: **(10 x 2 = 20)**

1. Measurement of dead space.
2. Haldane effect.
3. Ventilation perfusion ratio.
4. Give two examples of high cardiac output state and low cardiac output state.
5. AV nodal delay.
6. Synaptic plasticity.
7. Prefrontal lobotomy.
8. Accommodation reflex pathway.
9. Travelling wave theory of hearing.
10. Taste pathway.

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[LR 503] AUGUST 2020 **Sub.Code :5054**

M.B.B.S. DEGREE EXAMINATION
FIRST YEAR
PAPER IV – PHYSIOLOGY INCLUDING BIO-PHYSICS – II

Q.P. Code: 525054

Time: Three hours **Maximum : 50 Marks**

Answer All Questions

I. Essay: **(1 x 10 = 10)**

1. Describe the neural regulation of respiration. Add a note on periodic breathing.

II. Write notes on: **(5 x 4 = 20)**

1. Factors affecting cardiac output
2. Pacemaker potential
3. ECG –Lead –II
4. Auditory Pathway
5. Functions of cerebellum

III. Short answers on: **(10 x 2 = 20)**

1. Lung Compliance
2. Exchange Vessels
3. Functions of parietal lobe
4. Waves of EEG
5. Referred pain
6. Circadian Rhythm
7. Aphasia
8. Kluver Bucy Syndrome
9. Homunculus
10. Sensation carried by posterior column

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[LT 503] NOVEMBER 2020 **Sub.Code :5054**

M.B.B.S. DEGREE EXAMINATION

FIRST YEAR

PAPER IV – PHYSIOLOGY INCLUDING BIO-PHYSICS – II

Q.P. Code: 525054

Time: Three hours **Maximum : 50 Marks**

Answer All Questions

I. Essay: **(1 x 10 = 10)**

1. Describe the structure and function of the conducting system of the Heart.
   Add a note on Pacemaker Potential.

II. Write notes on: **(5 x 4 = 20)**

1. Non respiratory functions of the Lung.
2. Oxy –Haemoglobin Dissociation Curve.
3. Heart Sounds.
4. Functions of Basal Ganglia.
5. Name Four properties of Synapse.

III. Short answers on: **(10 x 2 = 20)**

1. Receptor Potential.
2. Reynold's Number
3. Artificial Respiration
4. Vital capacity.
5. Errors of Refraction.
6. Functions of Thalamus.
7. Papez Circuit.
8. Functions of Cerebro Spinal Fluid.
9. Bell Magendie Law.
10. Referred pain.

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[MBBS 0821] AUGUST 2021 **Sub.Code :5054**

M.B.B.S. DEGREE EXAMINATION
FIRST YEAR
PAPER IV – PHYSIOLOGY INCLUDING BIO-PHYSICS – II

Q.P. Code: 525054

Time: Three hours **Maximum : 50 Marks**

Answer All Questions

I. Essay: **(1 x 10 = 10)**

1. Discuss in detail about Various Nuclei Interconnections and Functions of Cerebellum. Add a note on Cerebellar Function Test .

II. Write notes on: **(5 x 4 = 20)**

1. How Alveoli Function for Effective Gas exchange?
2. Decerebrate Rigidity.
3. His Bundle ECG.
4. Visual Pathway.
5. Functions of Hypothalamus.

III. Short answers on: **(10 x 2 = 20)**

1. Lung Volumes.
2. Functions of CSF.
3. Functions of Frontal Lobe.
4. Stages of Sleep.
5. Functions of surfactant .
6. Structure of Synapse.
7. Pace Maker Potential.
8. Frank-Starling Law of Heart.
9. Syringomyleia .
10. Artificial Respiration.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[MBBS 0222] FEBRUARY 2022 **Sub.Code :5054**

M.B.B.S. DEGREE EXAMINATION
(For the candidates admitted from the Academic Year 2018-2019)
FIRST YEAR
PAPER IV – PHYSIOLOGY INCLUDING BIO-PHYSICS – II

Q.P. Code: 525054

Time: Three hours **Maximum : 50 Marks**

Answer All Questions

I. Essay: **(1 x 10 = 10)**

1. Describe origin, course, termination and functioning of spinothalamic tract. Add a note on investigations used in spinal injury.

II. Write notes on: **(5 x 4 = 20)**

1. Histotoxic hypoxia.
2. Functions of parietal lobe.
3. Taste pathway.
4. Special features of coronary circulation.
5. Non respiratory functions of lung.

III. Short answers on: **(10 x 2 = 20)**

1. Functional Residual Capacity.
2. Capacitance vessels.
3. Facial nerve paralysis.
4. Define cardiac output.
5. Functions of temporal lobe.
6. Lesions at the internal capsule.
7. Classify Receptors.
8. Functions of limbic system.
9. Properties of synapse.
10. Properties of conditioned reflex.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[MBBS 0822] **AUGUST 2022** **Sub. Code :5054**

M.B.B.S. DEGREE EXAMINATION

(For the candidates admitted upto the Academic Year 2018-2019)

FIRST YEAR

PAPER IV – PHYSIOLOGY INCLUDING BIO-PHYSICS – II

Q.P. Code: 525054

Time: Three hours **Maximum : 50 Marks**

Answer All Questions

I. Essay: **(1 x 10 = 10)**

1. Trace the Visual pathway with a neat diagram. Add a note on visual field defects produced by lesions at various levels of pathway.

II. Write notes on: **(5 x 4 = 20)**

1. Paradoxical sleep.
2. Fetal circulation.
3. Dysbarism.
4. Functions of Cerebellum.
5. Short term regulation of Blood pressure.

III. Short answers on: **(10 x 2 = 20)**

1. Hamburger Shift.
2. Reynold's number.
3. Define Anosmia. Mention two causes of anosmia.
4. Referred pain.
5. Name two facilitatory and inhibitory neurotransmitters.
6. Bohr effect.
7. Draw neatly the waves of ECG.
8. Saltatory conduction.
9. Dead space.
10. Law of projection.

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