503-A-FIRST M.B.B.S. DEGREE EXAMINATION – JULY, 2013-PHYSIOLOGY-PAPER-I

Time : 2 ½ Hours-Max. Marks: 50-Answer all questions

1..Name the blood group systems. Explain basis for its classification. Add a note on its clinical importance-3+4+3=10m

2..Define cardiac out put, mention the factors affecting cardiac out put, describe one method of measurement of cardiac out put=1+4+5=10m

Write Short Notes On: 5 X 4=20m

3..Properties of cardiac muscle 4..Composition and functions of Gastric Juice.

5..Juxta medullary nephron 6..Heat loss mechanism 7..Secondary active transport

Write Briefly On: 5 x 2=10m

8. Land Steiner's Law 9. P.R Interval 10.Artificial respiration 11.Control of Salivary Secretion 12.Respiratory distress syndrome

503-A-FIRST M.B.B.S. DEG. EXAMINATION – NOVEMBER, 2012-PHYSIOLOGY-PAPER-I

1..Enumerate the respiratory centers. Explain the neural and chemical regulation of respiration=2+4+4

2..Give an account of various factors involved in blood coagulation. Write a note on fibrinolytic system=6+4=10m

Write Short Notes On: 5 x 4=3..Action potential of ventricular muscle

4..Describe the composition and functions of Bile. 5..Composition and functions of Saliva

6..Regulation of glomerular filtration rate 7..Lung volumes and capacities with their normal values

Write Briefly On: 5 x 2=10m

8. Reactive hyperemia 9. Distribution of body fluids 10.Cause for production of heart sounds

11.Define Cyanosis. Where it is seen? 12. Intra pleural pressure

503-A-FIRST M.B.B.S. DEG. EXAMINATION – JANUARY, 2012-PHYSIOLOGY-PAPER-I

1..Describe the composition, functions and regulation of gastric juice secretion=2+3+5=10m

2..Describe counter current multiplier system in the kidney.

Write Short Notes On: 5 x 4=20m

3..Mention functions of Platelets 4..Cyanosis 5..Surfactant and its functions 6..Anaemias

7..Draw and label waves of ECG (Electro Cardiogram)

Write Briefly On: 5 x 2=8..Secretory vesicles 9..Functions of spleen 10.Cross matching of blood

11.Functions of lymph. 12.Heart sounds.

503-A-FIRST M.B.B.S. DEGREE EXAMINATION – JULY, 2011-PHYSIOLOGY-PAPER-I

1..Explain the hormonal phase of Pancreatic juice secretion=10m

2..What is Hypoxia? Classify it. Explain them in brief=10m

Write Short Notes On: 5 x 4 =20m

3..Anticoagulants 4.Erythroblastosis Foetalis 5.Venous Return 6.Artificial kidney 7.Heart sounds

Write Briefly On: 5 x 2 =10m= 8. Endocytosis 9. Carotid bodies 10. Sweat glands

11.What is Tubular maximum for Glucose (TmG) 12. Anti Diuretic Hormone (ADH)

503-A-FIRST MBBS. DEG. EXAMINATION-JANUARY, 2011-PHYSIOLOGY-PAPER-I

1. Define arterial blood pressure. Mention its normal values. Explain the regulation of blood pressure=1+1+8=10m

2. Describe reabsorption of water in Renal tubules. Add a note on Diabetes insipidus=8 +2=10m

Write Short Notes On: 5 x 4 =20m

3. Various stages of Asphyxia. 4. Functions of skin. 5. Jaundice.

6. Mechanism of Hydrochloric acid secretion in stomach. 7. Erythrocyte Sedimentation Rate (ESR).

Write Briefly On: 5 x 2 =10m

8. Mitochondria. 9. Fever 10. Classify anaemias. 11. Residual volume

12.Define vital capacity and mention its values.

503-A-FIRST M.B.B.S. DEG. EXAMINATION – JULY, 2010-PHYSIOLOGY-PAPER-I

1. Classify leucocytes. Give an account of development and functions of different Leucocytes=10m
2. Discuss the mechanism of regulation of our body temperature=10m

Write Short Notes On: 3. Deglutition 4. Korotkoff's sounds 5. Hypoxia
6. Lung surfactant and its applied aspects 7. T cells v/s B cells

Write Briefly On: 5 x 2 =10m

8. Erythropoietin 9. Bile salts 10. Function of Gastrin 11. Tidal volume 12. P-R Interval

503-A-FIRST M.B.B.S. DEG. EXAMINATION – JANUARY, 2010-PHYSIOLOGY-PAPER-I

1. Discuss the mechanism of formation of concentrated urine. Add a note on diuresis=8+2=10m
2. Give the composition, functions of gastric juice. Explain the mechanism of secretion of gastric juice=2+2+6=10m

Write Short Notes On: 5 x 4 =20m=3. Conducting system of the heart 4. Oxygen dissociation curve
5. Effects of mismatched blood transfusion 6. Juxta glomerular apparatus 7. Regulation of body temperature

Write Briefly On: 5 x 2=10m=8. Insulin clearance test 9. Anti-Coagulants
10. Chylomicron 11. A.V. Node 12. Peripheral resistance

503-A-FIRST M.B.B.S. DEGREE EXAMINATION – JULY, 2009-PHYSIOLOGY-PAPER-I

1. Discuss the uptake of oxygen by the blood and the factors that determine its dissociation=5+5=10
2. What is Hemoglobin and what are its functions? What factors are required for its formation and discuss the catabolism of Hemoglobin?=2+2+3+3=10

Write Short Notes On=x4= 3. Rh-factor and its importance. 4. Movements of small intestine
5. What is asphyxia? Explain its features. 6. Intra-thoracic and Intra-pulmonary pressures
7. Functional Residual capacity.

Write Briefly On:5x2=8. Two non-respiratory functions of Lung 9.Morphological classification of anemias
10.Jugular venous pulse. 11. Apnoea. 12. Mass peristalsis

503-A-FIRST M.B.B.S. DEG. EXAMINATION – FEBRUARY, 2009-PHYSIOLOGY-PAPER-I

1. Draw diagram of right atrial pressure curve. Describe the pressure changes in the right atrium during a cardiac cycle=2+8=10
2. Enumerate the respiratory centers. Describe the neural regulation of respiration=2+8=10

Write Short Notes On:= 5x4=20

3. Nitrogen narcosis. 4. Blood groups. 5. Exocytosis. 6. Peptic ulcer. 7. Surfactant.

Write Briefly On=5x2=10m=8. Micturition reflex. 9. Dietary fibres.
10. Role of abdominal muscles in respiration. 11. Intra pleural pressure. 12. Anticoagulants.

503-A FIRST M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2008-PHYSIOLOGY-PAPER-I

1. Explain the changes occurring in coronary circulation during a cardiac cycle. Why pain occurs in the chest in Angina Pectoris.= 8+2=10
2. Describe the transport of oxygen in the blood. Draw oxygen dissociation curve= 8+2=10

Write short notes on: =5x4=20m=3. Functions of ribosomes in cell. 4. Haemolytic jaundice.
5. Sea water drowning. 6. Heat loss mechanism in the body. 7. Functions of plasma proteins.

Write briefly on:= 5x2=8. Packed cell volume. 9. Types of Haemoglobin 10. Gastro colic reflex.
11.'C' wave in atrial pressure curve. 12.Glomerular filtration rate.

503-A-FIRST MBBS. DEGREE EXAMINATION – JULY, 2008-PHYSIOLOGY-PAPER-I

1. What are the baroreceptors? How the baroreceptors regulate the blood pressure=2+8
2. What is asphyxia? Describe the various stages of asphyxia=2+8=10

Write short notes on=5x4=3. Erythroblastosis fetalis 4. Ventricular systolic suction 5. Second Heart Sound.
6. Hering bruer inflation reflex 7. Juxta glomerular apparatus

Write briefly on: =5x2=10m=8. Adrenergic receptors of heart 9. Dehydration shock 10 Gastrin
11. Haemophilia 12.Fever

503-A-M.B.B.S. DEG.FIRST YR. EXAM – MARCH/APRIL, 2008-PHYSIOLOGY-PAPER-I

1. Describe the blood groups and their significance; What is the importance of Rh factor? =8+2=10
2. Draw a diagram to show the structure of the respiratory membrane and enumerate the haemodynamic factors influencing the exchange of gases across the membrane= 5+5

Write short notes on:-5x4=1. Factors influencing coronary blood flow 2. Eccrine type of sweat gland
3. Name the different movements of the small intestines and mention their significance
4. Juxta medullary nephron 5. P – R interval significance

Write briefly:-5x2=6. Describe the thermal changes during muscle contraction 7. Describe the functions of Bile
8. What is the Physiological importance of normal oncotic pressure of Plasma?
9. Artificial Respiration 10.Fick's principle

503-A.M.B.B.S. FIRST Yr. DEGREE EXAMINATION–SEPT/OCT, 2007-PHYSIOLOGY

1. What is the physiological basis of Blood grouping? Explain the Blood Groups and their clinical importance =2+5+3
2. Describe the transport of oxygen in the blood. Add a note on Bohr's effect, with the help of ODC Curve =4+3+3

Write short notes on: 5 x 4=3. Surfactant 4. Heart Sounds 5. Anaemias 6. Micturition 7. Deglutition
Write briefly on: 5 x 2=10m; 8. Ventilation-Perfusion Ratio 9. Cardiac Index
10.Tubular maxima for Glucose 11. Urea clearance 12.Anticoagulants

PAPER-I - MAY, 2007

1. Give an account of the various factors involved in blood coagulation. How is blood prevented from clotting in the vascular system.= (5+5=10)
2. Describe the modes of transport of Co2 from the tissues to the lungs =10
3. Write Short Notes: =5x4=a) Discuss the role of Hering Breur Reflex b) Functions of distal convoluted tubule c) Composition and function of saliva
d) Draw and label the ECG of lead II and explain the significance of Pwave & ST segment. e) Mass peristalsis
4. Write Briefly On: =5x2=a) Cyanosis b) Role of skin in the regulation of body temperature c) Bile salts
d) Glomurular filtration rate e) Rigor mortis

SEPTEMBER-2006-N.R. - PAPER-I

1. Enumerate the events of cardiac cycle. Describe the pressure changes in the left ventricle of the heart (2+8)
2. What is asphyxia? Describe the various stages of asphyxia=2+8=10m

Write short notes on: 5 x 4 =20m; 3. Erythroblastosis fetalis 4. Nitrogen narcosis
5. Hering-Breuer reflex 6. Heat loss mechanism in the body 7. Counter current mechanism
Write briefly on: 5 x 2 =10m; 8. Packed cell volume in the haemorrhagic shock
9. Adrenergic receptors in the heart 10.Role of the abdominal muscles in the respiration
11.Dietary fibres 12.Haemophilia

PHYSIOLOGY - APRIL-2006. (N.R) PAPER-I

1. Describe the process of coagulation of Blood. Write a note on fibrinolytic system (6+4)
2. Define Blood pressure. Mention the factors maintaining Blood Pressure. Explain the short term and long term regulation of Blood pressure (1+3+3+3)

Write short notes on: 5 x 4 =20m; 3) Digestive Lipases 4) Plasma clearance 5) Lymphocytes
6) Dead space Air 7) Bipolar Limb Leads
Write briefly on: 5 x 2 =10m; 8) Asphyxia 9) Cardiac Reserve
10) Movements of small intestines 11) Intrapleural pressure 12) Packed cell volume

SEPT/OCT-2005. (NEW REGULATIONS)

1. What is peripheral resistance in the cardiovascular system? How is it controlled?
2. What is the composititon of normal alveolar air? How does a change in partial pressure of CO2 in alveolar air affects respiration? (2+8=10marks)

Write short notes on: 5 x 4 =3. Functions of ribosomes in cell 4. Blood groups
5. Venous rectum during ventricular systole 6. Surfactant 7. Juxtaglomerular apparatus
Write briefly on: 5 x 2 =10marks;
8. Types of haemoglobin 9. Dehydration shock 10.Gastrocolic reflex 11.Micturition reflex 12.Fever

PAPER-I - MAR/APR.2005

1. What is the normal blood pressure? Give an account of regulations of arterial blood pressure (2+8=10marks)
2. Classify hypoxia. Describe how the body acclimatizes itself to high altitude (2+8=10marks)

Write short notes on: 5 x 4 =20m=3. Ennumerate the difference between voluntary and involuntary muscles
4. Secretin 5. Timed vital capacity 6. Functions of Plasma proteins 7. Pecularities of Renal circulation
Write briefly on: 5 x 2 =10m=8. Draw and label jugular pulse tracing. Mention the causes of these waves.
9. Refractory period 10.Mention some causes of physiological leucocytosis 11.Intestinal Villi
12.Threshold substances

PHYSIOLOGY - OCTOBER, 2004. PAPER-I (NEW REGULATIONS)

1. Define Erythropoiesis. Describe the stages of erythropoiesis and mention the factors influencing it (1+7+2)
2. What is Cardiac Output? Mention one method for measuring Cardiac Output. Describe the factors which regulate cardiac output (1+3+6=10marks)

Write short notes on: 5 x 4 =3. Juxta Glomerular Apparatus 4. Blood groups
5. Composition of pancreatic juice 6.Vital capacity 7. Oxygen Dissociation Curve
Write briefly on: 5 x 2 =10marks
8. Landsteiner's law 9. Hypoxia 10. Glomerular Filtration Rate 11.Cyanosis 12.E.C.G.

APRIL, 2004. PAPER-I

1. What is Hypoxia? Classify and give a detailed account of the different types of Hypoxia with examples. Add a note of O2 therapy (3+4=3=10marks)
2. Describe in detail the production and morphology of white blood cells. Write a brief account of their role in the inflammatory response of the body (8+2=10marks)

Write short notes on: 5 x 4 =3. Action of ADH on concentration of urine
4. Describe the composition and action of Bile 5. Heat Production in the body
6. Decompression sickness 7. Juxtaglomerular apparatus

Write briefly on: 5 x 2 =8. Baro-receptors 9. Filtration fraction 10.Active transport 11.P-R interval 12.Intra Pleural pressure

OCTOBER, 2003. PAPER-I (New Regulations)

1. Describe the phasic flow of blood in coronary circulation. Add a note on Angina Pectoris. (8+2)
2. Describe the process of uptake and transport of oxygen in the blood. Add a note on the oxygen dissociation curve.(2+8=10marks)

Write short notes on: 5 x 4 =20marks . 3. Mechanism of exocytosis 4. Haemolytic jaundice
5. Splitting of the Second heart sound 6. Surfactant 7. Peptic ulcer

Write briefly on: 5 x 2 =8. Intrapleural pressure 9. Glomerular Filtration Rate
10. C wave of the atrial pressure curve 11.Anticoagulants 12. Gastrin.

OCTOBER, 2003. PAPER-I (Old Regulations)

Part-A (50marks)

1. Write the different types of Immunity? Describe the role of lymphocytes in Immunity. =15marks
2. Write short notes on: 7x5=35m= a) Transfusion reactions b) Blood indices c) Triple response d) Circulation time e) Tight junctions f) Fick principle g) Homeostasis

Part-B (50marks)

3. Describe the mechanism involved in the concentration of urine =15marks
4. Write short notes on: 7x5=a) Juxta glomerular apparatus b) Diuretics c) Vital Capacity d) Dead space e) Oxygen debt f) Sham feeding g) Defecation

APRIL, 2003 - PAPER-I

1. Describe the composition, function and regulation of secretion on gastritis (3+3+4=10marks)
2. Describe in detail the process of Haemostasis? Add a short account of some common Bleeding disorders (8+2)

1. Write short notes on: 5 x 4 =a) Functions of plasma proteins b) Micturition Relfex
c) Describe the mechanism of acclimatization to high altitude
d) Define and give the value of lung compliance. Outline the method of its measurement
e) Describe the reticulo-endothelial system

2..Write briefly on: 5 x 2 =a) Baro-Receptor reflex b) Indicator dilution technique c) Frank-Starling's law
d) Heat-stroke e) Immunoglobulins

APRIL, 2003 PAPER-I (OLD REGULATIONS)

Part-A (50marks)

1. Define Cardiac output. Mention the methods to measure cardiac output. What are the factors which regulate cardiac output =15marks
2. a) Draw an ECG and explain the cause of the waves b) Cerebral circulation
   c) Baro-reception and its function d) Properties of cardiac muscle
   e) Plasma proteins and their functions f) Anticoagulants g) Functions of Leucocytes

Part-B (50marks)

1. Draw and locate the respiratory centres. Describe the neural regulation of respiration. Write about Hering-Breuer Reflex=15marks
2. a) What is Dysbarism. How can it be treated? b) Vital capacity and its variation
   c) Composition and functions of success entericus d) Glomerular filtration and factors affecting
   e) Cystometrogram f) Gastric emptying time g) Functions of pancreatic juice.

OCTOBER/NOVEMBER, 2002 – PAPER-I (NEW REGULATIONS)

Answer all questions:

1. Describe the ionic basis of the action potential =10marks
2. Explain the role of the kidney in the maintainence of water balance in the body? Add a note on Diabetes Inspidus (8+2=10marks)

Write short notes on: 5 x 4 =20marks

3. Describe the composition & actions of Pancreatic juice 4. Glucose reabsorption from renal tubules
5. Tubular secretion 6. Tissue fluid formation 7. Fat of RBC/Haemoglobin

Write briefly on: 5 x 2 =10marks
8. Functions of platelets 9. Ultra filtration 10. Counter current system of the kidney
11.Refractory period 12. Periodic breathing

OCTOBER/NOVEMBER,2002 – PAPER-I (OLD REGULATIONS)

Part-A
1. List the methods of estimation of cardiac output. Describe any one of them =15marks
2. Write briefly on: 7x5=a) Functions of leucocytes b) Immunoglobulins c) Landsteiner's laws.
d) Conducting system of heart e) Baroreceptor reflex f) Autoregulation of blood flor
g) List the transport systems in cell membranes
Part-B
3. What are Hering-Breuer reflexes? What is their role in respiration? 15marks
4. Write short notes on: 7x5=a) Cortical and juxta medullary nephrons b) Cyanosis
c) Oxygen dissociation graph d) Mechanisms of acidification of urine
e) Nerve supply to bladder f) Lipid digestion in intestines g) Functions of large intestine

13th August, 2001 – PAPER-I (Old Regulations)

Part-A
1. Enumerate stages of Erythropoiesis. Describe the morphological changes. What is the effect of lack of Vitamin-B12 and iron =15marks
2. Write short notes on: 7x5=a) Capillaries types and functions b) Facilitated diffusion
c) Properties of cardiac muscle d) Plasma proteins and functions e) Blood indices and normal values
f) Fick's principle g) List the transport systems in cell membrane
Part-B
1. Describe the formation of HCL in stomach. Add a note on Antacids =15marks
2. Write short notes: 7x5=a) Loop of Henle b) Absorption of glucose in intestines c) Respiratory membrane
d) Types of CO2 transport e) Hypoxie f) Entero hepatic circulation g) Cystometrogram

8th February, 2001 - PAPER-I (New Regulations)

1. Explain the origin, and spread of cardiac impulse. Add a note on heart block (7+3=10marks)
2. Define Haemostasis. Explain the steps involved in intrinsic mechanism of clotting. Add a note on Haemophilia (1+6+3=10marks)

Write short:5 x 4 =3. Role of peripheral respiratory hemoreceptors in the regulation of respiration
4. Glucose reabsorption in renal tubule 5. Functions of skin 6. Regulation of secretion of saliva
7. Role of baroreceptors in the regulation of blood pressure
Write briefly on: 5 x 2 =8. State how erythroblastosis fetalis can be prevented
9. Mention the mechanisms which tend to prevent a rise in body
10.Explain why insulin is used to determine glomerular filtration rate
11. Enumerate the actions of gastrin 12. Characteristics of active transport

8th February, 2001 – PAPER-I (Old Regulations)

Part-A
1. State the effects of moderate haemorrhage. Explain the compensatory reactions activated by haemorrhage=15marks
2. Write short notes on: 7x5=a) Haemophilia b) Origin and spread of cardiac impulse
c) All or none law of heart d) Haemolytic disease of the new born e) Anticoagulants
f) Immunoglobulins g) Sinus Arrhythmia
Part-B
3. Describe the composition, functions and regulation of pancreatic juice secretion =15marks
4. Write short note;: 7x5=a) Muscles of inspiration b) Hypoxic Hypoxia c) Functions of stomach
d) Dysbarism e) Deglutition f) Diabetes Insipidus g) Tubular maximum for glucose (TMG)

14th July, 2000 – PAPER-I (Old Regulations)

Part-A
1. Define systolic, diastolic and pulse pressure. Describe the short term regulation of arterial blood pressure =15marfks
2. Write short; 7x5=a) Peculiarities of pulmonary circulation b) Plasma proteins & their functions
c) Triple response d) Stages of erythropoiesis e) Functions of lymph f) Venous return
g) Rh-Incompatibility
Part-B
1. Define, Classify and describe the various types of hypoxia. Add a note on periodic breathing =15m

2. Write short: 7x5=a) Functions of Bile b) Respiratory centres c) Lung surfactant d) Gastric emptying
e) Automatic bladder f) Maximum voluntary ventilation (M.V.V.) g) Glomerular Filtration rate (G.F.R.)

14th July, 2000 - PAPER-I (NEW REGULATIONS)

Part-A

1. Give an account of the reflexes regulating the heart rate & responses to changes in arterial blood pressure &
2. Write short notes on: 5 x 3 =a) What is dead space air b) Triple response c) Rh factor d) Haemophilia
   e) Define cardiac output. Mention four factors regulating cardiac output

Part-B

3. In what forms O2 is transported in the blood? Draw a oxyhaemoglobin dissociations curve. How is it obtained. Mention the factors which cause a shift to the right and those which cause a shift to the left (2+4+2+2)
4. Write short notes on: 5 x 3 =15m a) Gastric emptying time b) Juxtaglomerular apparatus
   c) Law of intestines d) Counter current mechanism in renal tubulus
   g) Draw and label the normal left intraventricular pressure curve

18th February, 2000 - PAPER-I (New Regulations)

Part-A

1. Give an account of the bodily mechanisms (defense) for preventing the entry of foreign organisms into the body through skin, mouth, air passages and digestive system =10marks
2. Write short notes on: 5 x 3 =a) Platelets b) Surfactant
   c) What is the Fick principle? How is it used in measuring plumonary blood flow
   d) Enumerate the factors that control the coronary blood flow e) Time vital capacity

Part-B

3. What is the normal arterial blood pressure in an adult? Describe the role of baro-receptors in the regulation of arterial blood pressure giving experimental evendices=10marks
4. Write short notes on: 5 x 3 =15marks
   a) Mention factors influencing GFR b) Succus entericus c) Mouth to Mouth respiration
   d) Functions of liver e) What is the role of skin in the regulation of body temperature

18th February, 2000 - PAPER-I (Old Regulations)

Part-A

1. Define the term stroke output, cardiac output and cardiac index. Describe the relation of cardiac Output=15m
2. Write short: 7x5=a) P.R.Interval and its significances b) Factors affecting coronary blood flow
c) Platelets and their functions d) Startling's law of heart e) Nutritional deficiency anaemias
f) Humaral mediated immunity g) Jugular venous pulse (J.V.P.)

Part-B

3. Describe the chemical regulation of respiration =15marks
4. Write short notes on: 7x5=a) Mechanism of concentration of urine b) Timed vital capacity (FEV1)
   c) Functions of saliva d) Cystometrogram e) Cholecystokinin-pancreozymin (GCK-PZ)
   g) Acclimatisation to high altitude

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