Feb. Blood

By RAKESH SINGH RATNU

1. Functions of Blood.
2. functions of plasma protein
3. meth haemoglobin
4. Functions of Hb
5. Disadvantage of free haemoglobine
6. Varieties of Haemoglobin (HbA, Fetal, HbS)
7. Thalassaemia
8. Poly cythemia
9. Erythropoiesis & Regulations
10. Anaemia
    - Pernicious
    - Iron deficiency
11. Jaundice
12. Physiology of Phagocytosis
13. Haemostasis and clotting mechanism
14. Fibrinolytic system.
15. Haemophilia & purpura.
17. Blood Transfusion
18. functions of spleen
19. Complementary system.
20. Development of Aquired Immune response.
21. Immunoglobulins (Ig)

General Physiology & Nerve muscle Physiology

By R.S. RATNU

Long Questions :-

100% 1. Active Transport

100% 2. Action Potential

100% 3. Neuromascular Junction

Short Questions

4. Defference between Action Potential and Graded Potential
5. Lambert-EATON syndrome and myasthenia gravis.
6. Sarcomere
7. sarcotubular system (DHP and Ryanodine Receptors)
8. sliding filament theory.
9. Isomatric and Isotonic contraction
10. Frank starling lawe
11. Electrical Properties of Heart muscles.
12. physiological Propenties of Nerve fiber
13. Red muscle fiber and white muscle fibers.
14. myelinated and unmyelinated Nerve fibers difference.

Digestive System (GIT)

By R.S. RATNU

*** Innervation of GIT
2. Salivary function & Composition
3. Swallowing (Deglutition)
*** Achalasia Cardia & Deglutition reflex
*** Composition of Gastric juice & secretion of HCl (mechanism)
*** Gastric motility (BER) & Gastric emptying
*** Dumping syndrome.
*** Peptic Ulcer.
9. Composition and function of Pancreatic juice
*** function of liver and sign of liver insufficiency
*** Bile composition & Bile salts and function of Bile.
***. LFT (liver function Test)
*** movement of small intestine
14. Hirschsprung's Disease
15. Defication Pathway.
16. Absorption of Fat and Iron
*** GIT Hormones.

Endocrine System

By. RAKESH SINGH RATNU

1. mechanism of Action of Hormone
2. Growth Hormone action & Regulation

*** Acromegaly, dwarfism., Gaintism.

*** Diabetes mellitus & Insipidus.

*** milk let down reflex or suckling reflex or ~~milk~~ Ejection reflex

60% *** 6. Thyroid Hormone complete

*** Goiter, myxedema, creatinism., Grave's Disease.

*** cushing, conn's and. Addition Disease.

9. Inseline., Glucagone & Glucocorticoid Action

(Note:- Endocrine system is most important for 1st sem.)

4 Feb.

Respiratory System.

By RAKESH SINGH RATNU

1. Caisson's Disease
2. Acclimatizations
3. Hypoxia & Cyanosis
4. Dyspnoea, Apnoea, Asphyxia, periodic Breathing
5. Nervous and chemical Regulation of Respiration
6. CO_2 Transport
7. Carriage of oxygen in blood
8. factors affecting O_2-Hb dissociation curve
9. Dead space
10. Surfactant
11. Compliance
12. Respiratory membrane
13. Non Respiratory functions of Respiratory system.
14. Dynamic Lungs volume and capacity (TVC & FVC)

Reproduction   By. R.S. RATNU

1. Klinfelter Syndrome / Turner / Hermaphrodite
*** Puberty
**** Testosterone / Progesterone / Oestrogene (Action) Hormone
*** Control of Testicular Activity
***. female sexual cycle
*** ovulation test
most imp Contraceptive measure
8. HCG
9. Pregency diagnosis Test
10. Parturation
11. Placenta
*** 12. Lactation

Date- 14/05/18 CNS (Central Nervous System)

By. R.S. RATNA

**** 100% Synapse
- Types, classification.
- Inhibition of synapse
- Properties of synapse

**** 100% Receptors
- classification
- Properties.

**** muscle spindle, muscle tone

100% **** Golgi tendon organ.

*** withdrawal reflex.

6. Ascending tracts

**** 100% Pain (Complete)
- Types
- Receptor
- *** fast and slow pain
- *** Reffered pain & Radiating pain
- *** Inhibition of pain (Gate Control theory)

8. Decending tracts

100% **** defference between upper motor Lession and Lower motor Lession

10. defference between
- ANS & Somatic Nervous System
- Sympathetic & Parasympathetic

**** 11. Brown sequard syndrome & Tabes Dorsalis.

12. multiple sclerosis

**** organ of otolith

14. Control of Body Posture

15. function of Reticular formation

**** 100% Cerebellum
- *** Neural Circuit
- *** Connection
- function and dysfunctions.

**** Thalamus
- *** functions
- Thalamic syndrome

**** 100% Sleep
- *** REM & NREM
- Control of sleep walking cycle

[illegible]

CNS (Central Nervous System)

By [illegible]

****1. Basal ganglia (complete)
100%
- ** Connections, ** Circuit, functions
- *** Parkinsons disease, Wilson's disease
- Spasticity & Rigidity

*** Functions of Hypothalamus
100%

1. Papez circuit, function of Limbic System

***2. Alzheimer disease

***3. Memory, Learning

***4. Aphasia

***5. Types of Speech and Sensory speech centres

Cardio-Vasculor System (CVS)

By. RAKESH SINGH RATNU

1. Cardiac Cycle (Complete)
2. Heart Sounds
3. Abnormal E.C.G. (Heart Block, myocardial Infarction, WPD syndrome)
4. Type of blood flow
5. Cardio vasculor Regulations
   - Auto regulation → NO Regulations
   - → Systemic Regulations → Neural Regulations
   - → Baroreceptor Regulations
   - 80% → Dorsal root vasodialations (Axon Reflex)
     - → Bainbridge Reflex
     - → Bezold - Jarisch reflex
6. Factor Affecting HR.
7. Marey's Law & Cushing reflex & Sinus Arrhythmia
8. Homometric & Heterometric regulations
9. factor Affecting B.P
10. Long term Arterial B.P regulations & Role of ADH.
11. Capillary circulations & Corronary circulations
12. Triple responce.
13. BBB (Blood Brain Barrier)
14. Shock (Complete)
15. Heart failure
16. Hypertentions

AMAN BHATI CVS

1. pacemaker tissue of Heart
2. cardiac cycle ☆☆☆☆☆
3. Normal ECG (ECG in Bipolar lead) ☆☆☆
4. unipolar Recording of ECG
5. Abnormal ECG
   - Heart Block
   - WPW - Syndrome ☆☆☆
   - myocardial ~~Infection~~ Inferaction (MI) ☆☆☆☆
6. windlekessel Effect
7. presser-flow Relationship, laplace law
8. CVS - Regulation ☆☆☆☆☆☆
9. Heart - Rate ☆☆☆
10. cardiac output
    - (complete) ☆☆☆
    - methods — direct-fick method (only)
11. Arterial Blood pressure ☆☆☆☆☆☆
12. coronary circulation ☆☆
13. pulmanary circulation
14. csf
15. Hydrocephalus
16. BBB (Blood Brain Barriar) ☆☆☆
17. Triple Response
18. shock and syncope ☆☆☆☆
19. Heart failure ☆☆☆☆☆

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CNS

AMAN BHATT

(1) diff. B/w EPSP and IPSP
(2) Inhibition of Synapses
(3) proplets of synapses
(4) classification of Receptor
(5) Muscle Spindle
(6) Strech Reflex and Muscle tone
(7) Ascending tract of spinal cord
(8) pain
(9) Decending pathways
(10) Difference B/w SNS and ANS
(12) diff. B/w 2 major Komponent of ANS
(13) ANS ~~acti~~ effect on various organ
(14) Spinal cord lesion complete
(15) otholith organ
(16) diff. B/w Intercollicular / Ischamic Decerebration
(17) function of Reticular formation
(18) cerebellum complete
(19) Thalamus complete
(20) Hypothalamus complete
(21) Sleep
(22) Basal ganglia complete
(23) Pepez circuit and Klever-Bucy Syndrome
(24) Speech disorder
(25) Alzimes disease
(26)

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1. olfactory
2. Auditory
3. Visual
4. Taste

} pathways.

5. organ of Corti
6. Deafness
7. Lession of visual pathways (effect)
8. Accomodation
9. Right Reflex pathways
10. Presbyopia / Hypermetropia / myopia
11. Dark adaptation
12. Night / Colour Blindness
13. Nystigmus.

EXCRETORY SYSTEM

1. Loop of Henle
2. Juxta Glomerular Apparatus
3. Table 55.1 (Differences ....)
4. Blood supply of Kidney
5. Mech. of Tubulo - Glomerular Feedback
6. *** GFR
7. Table 56.2 (GF v/s SF)
8. Glucose , Na^+ , HCO_3^- reabsorption
9. **** Renal Clearance
10. ** Counter current multipliers
11. ** Counter Current exchangers
12. Diuresis (Table 58.1 & 58.2)
13. Renal Regulation of Acid - Base (only Buffer systems)
14. Acid Base Abnormalities
15. *** Anion Gap
16. *** Renal Clearance Tests
17. Applied Aspects (Micturation) - A & B only
18. Flowchart (Fig. 63.2 . Balance between ....)
19. *** Temperature Regulation Mech.
20. *** Fever

Digestive System

AMAN BHATI
58th BATCH

1. Innervation of GIT
2. Saliva — function
   — machenism of secretion
   — control of secretion
   — Applied
3. Swallowing (Deglutition)
4. Gastrin
5. machenism of secretion of gastric juice (mainly HCl) and Regulation of its secretion (dia 27.4 & 27.5)
   A.K jain.
6. Gastric Emptying
7. Dumping Syndrome, vomiting, peptic ulcer
8. Exocrine and Endocrine function of pancreas
9. Role of secretine and CCK-PZ in Regulation of pancreatic juice secretion
10. Bile salt } — functions
    Gall Bladder
11. Gall stone
12. movement of small Intestine
13. movement of large Intestine
14. Defecation
15. Absorption & digestion of ~~fatty~~ fats.
16. Liver function Test

1. Mylinated & unmylinated nerve fibre difference
2. Neuroglia
3. Nerve growth factor
4. properties of nerve fibre
5. classification of nerve fibre
6. compound action potential
7. Degeration and Regeneration (wallerian degeration)
8. Neuromuscular junction
9. Skeletal Muscle structure
10. Molecular Basis of Muscle contraction
(Sliding filament theory)
11. Isotonic and Isometric contraction
12. Length - tension Relationship curve
13. Motor unit

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Endocrine

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1. machenism of Harmone Action (fig. 70.4, 70.5 Ak jain) ***
2. Growth Harmone with all applied ****
3. milk let down Reflex ****
4. Thyroid Harmone complete ******
   - formation
   - Action
   - Regulation
   - Applied
5. Thyroid function test
6. Rickets, osteomalacia, tetany, Hyperparathyrodism, Hypoparathyrodism
7. cushing Syndrome, conn's Syndrome, Addison's disease *****
8. Action of Aldosterone ****
9. Escape phenonmenon ****
10. Action of cathecholamines
11. Exocrine and endocrine function of pancrease ****
12. diabetes malitus complete *******
13. general details about insulin