



RASHIDA IQBAL FINANCIAL AID **ORGANIZATION**

GUIDELINES OF PHYSIOLOGY -1ST YR **FOR PROFESSIONAL EXAMS**

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IMPORTANT QUESTIONS AND TOPICS FOR MBBS 1ST
PROFESSIONAL PART-I

HOMEOSTASIS :-

- DIFFERENCES BETWEEN ECF AND ICF ,
- DEFINITION OF HOMEOSTASIS,
- GAIN OF A CONTROL SYSTEM AND ITS EXAMPLES (BP AND TEMP REGULATION) ,
- NEGATIVE FEEDBACK ,
- POSITIVE FEEDBACK EXAMPLES ,
- DEATH IN HEMMORHAGE,

- FEED FORWARD CONTROL ,
- REFLEX ACTION (DEF N PATHWAY)

CELL :-

- ENUMERATING MEMBRANOUS AND NON MEMBRANOUS ORGANELLES,
- STRUCTURE OF CELL MEMBRANE ,
- FUNCTIONS OF CELL MEMB ,
- CELL SECRETION METHODOLOGY ,
- LYSOSOME V/S PEROXISOMES ,
- FUNCTIONS OF LYSOSOMES ,
- VAULTS (NOT IMP THOUGH BUT CAN B ASKED) ,
- ACTION OF LYSOSOMES ,
- ENDOCYTOSIS AND TYPES,
- ATP USES ,
- JUST GIVE A READ TO MOVEMENTS (NOT IMP THOUGH)

GENETICS:-

NO NEED TO GO THROUGH THIS .. NO SEQ APPEARS FROM THIS SECTION
... BUT IT WAS ASKED BY EXTERNAL EXAMINER IN SUPPLEMENTARY
EXAMINATION ONCE

TRANSPORT :-

- DIFFUSION V/S ACTIVE TRANSPORT ,
- DIFFUSION V/S FACILITATED DIFFUSION ,
- FACTORS AFFECTING SIMPLE AND FACILITAED DIFFUSION ,
- DEFINITION OF OSMOSIS , OSMOTIC PRESSURE ,
- TYPES OF ACTIVE TRANSPORT IN DETAIL WITH EXAMPLES ,
- FUNCTIONS/SIGNIFICANCE OF Na/K ATPase

NERVE :-

*THIS MUST BE DONE EITHER FROM DR INAM'S NOTES OR MUSHTAQ (NOT FROM GUYTON)

- RMP,
- PHYSIOLOGICAL BASIS OF RMP ,
- AP V/S GRADED POTENTIAL ,
- IPSP EPSP ,
- DRAWING AP ,
- CHANGES IN PERMEABILITY OF MEMB OWING TO CHANGES IN CHANNELS (FULL DETAIL) ,
- SYNAPSE PROPERTIES ,
- TEMPORAL N SPATIAL SUMMATION ,
- EFFECT ON HYPO AND HYPER KALEMIA ,
- NERST'S POTENTIAL ,
- SALTATORY V/S CONTINUOS CONDUCTION ,
- PLATEAU ,
- TYPES OF NERVE FIBRES AND ORDER IN WHICH THEY ARE EFFECTED BY HYPOXIA , ANAESTHESIA ETC. ,
- SAFETY FACTOR

MUSCLE :-

- EPSP VS EPP ,
- MECHANISM OF MUSCLE CONTRACTION,
- SLIDING FILAMENT MODEL ,
- PROTEINS IN MUSCLE FIBRES ,
- TYPES OF MUSCLE FIBRES ,
- WALK ALONG MODEL ,
- POWER STROKE ,
- RED MUSCLE FIBRES V/S WHITE MUSCLE FIBRES ,
- FATIGUE,
- NMJ DRAW,
- ACETYLCHOLINE FORMATION AND DEGRADATION ,
- MYASTHENIA GRAVIS AND LAMBORT EATON SYNDROME ,

- EXCITATION CONTRACTION COUPLING ,
- MULTI UNIT V/S UNITARY SMOOTH MUSCLES ,
- CALCIUM-CALMODULIN ,
- SPIKE POTENTIALS ,
- SLOW WAVE POTENTIALS

HEART :-

*BETTER DO THIS FROM DR INAM'S NOTES SPECIALLY THE ARRHYTHMIAS AND ECG

- CARDIAC MUSCLE AS SYNCITIUM ,
- CARDIAC IMPULSE (DETAILS) ,
- AP IN CARDIAC MUSCLE ,
- CARDIAC CYCLE (NAMES OF DIFFERENT PHASES) ,
- JVP ,
- CARDIAC OUTPUT ,
- CARDIAC INDEX ,
- AORTIC PRESSURE CURVE ,
- ECG DIAGRAM ,
- ALL INTERVALS ETC WITH AMPLITUDE AND DURATION ,
- PLACING OF ECG LEADS ,
- VECTORIAL ANALYSIS EINTHOVEN'S LAW ,
- EINTHOVEN'S TRIANGLE,
- FIBRILLATION ,
- FASCICULATION ,
- ATRIAL FLUTTER V/S FIBRILLATION ,
- ARRHYTHMIAS IN WHICH PR-INTERVAL IS SHORTENED,
- MERITS AND DE-MERITS OF DIFFERENT METHODS FOR MEASURING CARDIAC OUTPUT,
- AV NODAL DELAY

CIRCULATION :-

- BAINBRIDGE REFLEX,
- EDEMA,
- SHOCK,
- CUSHING REFLEX,
- BARORECEPTOR V/S CHEMORECEPTORS ,
- TYPES OF BLOOD VESSELS ,
- REGULATION OF BLOOD PRESSURE ,
- COMPLIANCE ,
- MEAN ARTERIAL PRESSURE,
- STARLING FORCES ,
- BLOOD FLOW REGULATION ,
- RENIN ANGIOTENSIN SYSTEM ,
- HYPERTENSION AND ITS TYPES ,
- MCFP , MSFP ,
- FACTORS EFFECTING VENOUS RETURN
- * IMP , SHOCK IS VERY IMPORTANT WHOLE CHAPTER

* ONE CAN DO CIRCULATION FROM MINI AND A FEW TOPICS FROM MAJOR DR INAM'S NOTES ARE THE BEST

RESPIRATION :-

- COMPLIANCE OF LUNGS,
- RDS
- SPIROGRAM DRAW,
- PULMUNARY VOLUMES N CAPACITIES (DEF N VALUE),
- DEAD SPACE (ANATOMICAL N PHYSIOLOGICAL),
- ZONES 1 ,2 ,3 AND THEIR PRESENCE IN LUNGS,
- RESPIRATORY MEMBRANE,
- PARTIAL PRESSURES OF O₂ N CO₂ VALUES IN DIFF THERAPY (V IMP),
- CHLORIDE SHIFT,
- HYPOXIA (TYPES IN DETAIL) (FROM NOTES OR MUSHTAQ),
- CYANOSIS (FULL DETAIL) (FROM NOTES OR MUSHTAQ),

- OXYGEN DISSOCIATION CURVE AND ITS SHIFTING ,
- HERRING BRUER REFLEX
- DECOMPRESSION SICKNESS
- ACUTE MOUNTAIN SICKNESS

BLOOD :-

- RBC INDICES,
- RBC FORMATION
- PERNICIOUS ANEMIA,
- SPRUE EFFECT ON RBCS,
- IRON TRANSPORT ,
- FUNCTIONS OF ENZYMES IN RBCS ,
- ANEMIA TYPES ,
- POLYCYTHEMIA TYPES,
- WBCS SIZE AND NUMBER ORDER ,
- DIFFERENCES B/W PHAGOCYTOSIS BY NEUTROPHILLS AND MACROPHAGES,
- DRAWING DIFFERENT WBCS,
- INFLAMMATION ,
- LEUKEMIA TYPES ,
- LEUKEMIA V/S LUKEMOID REACTIONS ,
- ANTIBODIES,
- COMPLEMENT SYSTEM (CLASSIC PATHWAY) ,
- FIG 34-8 ,
- ACTIVE V/S PASSIVE IMMUNITY ,
- SECRETORS AND NON SECRETORS ,
- BLOOD TYPES AND WHICH BLOOD GROUP CAN BE TRANSFUSED INTO AN INDIVIDUAL WITH A GIVEN BLOOD GROUP ,
- UNIVERSAL DONOR ,
- UNIVERSAL ACCEPTOR,
- AUTO/ISO/XENO/ALLO GRAFTS ,
- BLEEDING TIME , CLOTTING TIME , DISEASES EFFECTING THEM,
- PLATELET PLUG FORMATION ,

- INTRINSIC AND EXTRINSIC PATHWAYS , (WHICH PATHWAY IN TEST TUBE) INTRINSIC HOTA HAI ,
- THROMBOCYTOPENIA ,
- STORING BLOOD ,
- ERYTHROBLASTOSIS FOETALIS (VERY IMPORTANT),
- ENLISTING CLOTTING FACTORS WITH THEIR NAMES

TEMPERATURE REGULATION :-

GIVE A READING TO THE CHAPTER MOSTLY THE RESPONSES IN BODY OCCURING IN HIGH AND LOW TEMPERATURES IS ASKED

JAZZAKALLAH UL KHAIR FOR ALL YOUR SUPPORT AND TRUST DONATE GENEROUSLY ... HELP THE ONES WHO NEED IT THE MOST. WE WILL BE HAPPY TO SERVE YOU ALL IN FUTURE.

DO REMEMBER EVERYONE IN YOUR PRAYERS

