SCL PARAMEDICAL COUNCIL OF INDIA

(Diploma in dialysis technicians)

-It is the best implicated method of management in renal failure patient

Course duration 2 years

Eligibility

* Intrested candidate must have passed 10+2 with physics chemestry biology or math with 40% marks by state board or any recognised board/ university.

Detail of subjects

Subjects (first year)

1- Human anatomy
2- Human physiology
3- General microbiology
4- General pathology
5- General Pharmacology
6- Basic of dailysistechneque
7- Practical

Second year

1- General medicine
2- General surgery
3- Clinical nephrology
4- Dialysis management
5- Practical

Scheme of examination

First year **First paper**

Subject

Human anatomy .physiology microbiology **75**

marks Internal assessment **25**

Second paper

Pathology pharmacology and basic of dialysis **75 marks**

internal assessment **25 marks**

Passed marks 50

Third paper

Oral and practical **75 marks**

internal assessment **25 marks**

Pass Marks **25 marks**

Second year

Paper first

General medicine general surgery **75 marks**

internal assessment **25 marks**

pass marks 50

Paper second

Clinical nephrology and dialysis management	**75 marks**
internal assessment	**25 marks**
pass marks	**50 Marks**

Third paper

Oral and practical	**75 marks**
INTERNAL assessment	**25 marks**
pass mark	**50 marks**

Human anatomy

Lesion no 1-

* Definition and branches of anatomy
* Introduction of anatomical terms
* Organization of cell. Tissue organ and system

Lesion no 2-

* Skeletal system

Bones: Definition structure function and types

* Detail study of structure of regional bone
* Joint: Definition classification structure movement

Lession3

Muscular system:

Definition structure function and type

Different muscular position and action

Lesion 4-

Cardiovascular system
heart its position structure conduction system nerve supply and blood supply
Blood vessels : structure differences position of chief vessels function
Cirulation of blood : systemic pulmonory portal

Lesion no 5:

*- Respiratory system:
Structure position function of respiratory organs

Lesion no 6-

Digestive system
Structure position and function of digestive organs

Lesion no 7-

Urinary system:-
Position structure of organ of urinary system

Lesion no 8-

Nervous system:
Introduction classification structure of nervous system

Lesion no 5-

Sense organs
Structure of Ear Eye Nose Tongue Skin

Lesion no 10-

Female reproductive system:
External and internal organs
Male reproductive system:
Internal and external organs

Human physiology

Lesion no 1:-

* Definition and introduction of physiology
* Organization of cell. Tissue organ and system

Lesion no 2-

Connective tissue its types function

Lesion no 3-

Muscular system:
Definition structure function and types

Lesion no 4-

Cardiovascular system:-
Heart its position structure nerve supply and blood supply
Blood vessels:- structure differences position of chief vessels function
Lymphatic system
Circulation of blood:- systemic pulmonary portal
Cardiac output stroke volume blood pressure pulse rate cardiac rate cardiac cycle
Blood:- detail description blood group rh factor

Lesion 5

Respiratory system:- respiration physiology lung volume and lung capacity

Lesion 6

Digestive system:- process of mastication deglutition digestion and absorption
Metabolism of blood constituents

Lesion 7

Urinary system:-
Physiology of blood filtration micturition
Regulation of blood temperature
Fluid and electorate balances

Lesion 8

Nervous system:-

Introduction classification structure and function of nervous system

Lesion 9

Sense organs:- ear eye nose skin tongue structure and function of ear eye nose skin and tongue

Lesion 10

Female reproductive system:
Menstrual cycle function
Male reproductive system:
External and internal organs

Lesion 11

Endocrine system:- structure and function of pituitary pancreas gland thyroid parathyroid gland thymus and suprarenal gland

General microbiology

1- Definition role scope and branch of microbiology
2- Bacteriology: - shape size and structure of bacteria
3:- Infection : - definition source and mode of transmission of infection
4:- Imunith: - types in detail immunization schedule
5:- Sterilization and disinfectant

Papper-2

General pathology pharmacology and dialysis management

General pathology

1:- Definition role scope and branch of pathology
2:- Inflammation its stage and sign
3 Derangement of body fluid
4:- Shock
5:- Introduction of hemorrhage thrombosis embolism

General pharmacology

1:- Definition role scope of pharmacology
2:- General pharmacokinetics and pharmacodynamics
3:- Diuretics
4:- Antjdiuretics
5:- Antibiotics

Basic of dialysis management

1:- Function of kidney nephron glmeruls tubules GFR urinary bladder Urethrara
2:- Basic chemistry of body fluid and electrolytes metric system atron compound molecules atonics weight and molecular weight ion ionic bondining solution concentration of solution electrolyte conductivity moles (s i unit) morality normality osmolality hydrogen ion conc. ph acids buffer
3:- body fluids fluids balances
4:- Types of dailysis
Haemodailysis peritoneal dialysis
Role of dialysis technician

Second year

Paper 1

General medicines and general surgery

Lesion 1

Infection and communicable diseases

Lesion 2-

Metabolic disorder:- diabetes obsity gout

Lesion 3:-

Diseases of endocrine system

Lesion 4:-

Diseases of nervous system

Lesion 5:-

Diseases of G I T

Lesion 6:-

Disease of blood

Lesion 7:-

Diseases of cardiovascular system

Lesion 8:-Disease of ear nose and throat

Lesion 9:-

Disease of respiratory system

Lesion 10:-

Diseases of eye

2:-general surgery

1-Wound
2- Ulcer
3- Skin graft
4- Burn
5- Orthopedic conditions
6- Gynecological and obstetrics conditions
7-other surgical conditions

Paper-2

Clinical nephrology and Dialysis management

Clinical nephrology

#- Various diagnostic procedures of renal diseases
#- Manifestation of renal diseases
#- Renal vascular diseases
#- Renal involvement in systemic diaseases
#- Infection conditions of kidney and urinary tract
#- Obstruction of urinary tract
#- Effects of the drugs on the kidney
#- Tumors of kidney and urinary tract
#- Hard water syndrome

#- Water fluid and electrolyte inbalance

Dialysis management

1- Concept of dialysis
2- Haemo dialysis
3- Water for dialysis procedure
4- Filtration decantationdistillation
5- Softener deionizer
6- Reverse osmosis different in purties
8 Water used in dialysis compare ro with d i
9- Different types of dialyzer
description reuse indication care factors improving performance choosing dialyzer priming sterility washing formalin use hemofiltration haemoperfusion

10- Dialysis equipment:-

Accessory equipment and functions blood pump monitors of temp. Flow pressure monitors of daily sate concentration ph
11- Chemicals used in daily sate advantages and disadvantages
12- Delivery system
13 Care assessment preparations
15 Complications:-
Complication during and after dialysis. If management potential problems during dialysis prevention hypovolacmia and its management
18- Peritoneal dialysis
Indication.dailysate preparation procedure types care complication- management. toxic substances added
19- Re- Dialysis assessment
20- Temporary vascular access
23- Goal of dialysis
24- Anti coagulant drug added in PD
25- Emergency drugs and injections
24- Disinfection procedure of machines and instruments
25- Clinical basics of i v fluid creatinin clearance
26 Role of dialysis technician.