

D.M. DEGREE EXAMINATION – JULY, 2016

SPECIALITY :: NEPHROLOGY

PAPER - III

CLINICAL NEPHROLOGY, DIALYSIS AND KIDNEY TRANSPLANTATION-II

Time : 3 Hours

Max. Marks : 100

ANSWER ALL QUESTIONS

- 1) Discuss in detail about incidence, risk factors and management of post transplant lymphoproliferative disorders. 30
- 2) Describe in detail about diagnosis of brain death, management of the Brain-Dead donor and preservation of deceased donor kidney. 30

WRITE SHORT NOTES ON:

4x10=40

- 3) Water treatment for hemodialysis
- 4) Discuss treatment of Hepatitis C in dialysis and out come of Kidney transplant in Hepatitis C and B
- 5) Discuss diagnosis and management of HUS
- 6) Rituximab in nephrology practice. Discuss its indications and mechanism of action.

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA :: AP

D.M. DEGREE EXAMINATION – JULY, 2016

SPECIALITY :: NEPHROLOGY

PAPER - II

CLINICAL NEPHROLOGY, DIALYSIS AND KIDNEY TRANSPLANTATION-I

Time : 3 Hours

Max. Marks : 100

ANSWER ALL QUESTIONS

- 1) Classify renal tubular acidosis. Discuss in detail causes, pathophysiology and management. 30
- 2) Discuss in detail various uremic toxins. Write in detail the acute and chronic complications on hemodialysis. 30

WRITE SHORT NOTES ON:

4x10=40

- 3) Classify lupus nephritis and the management of it.
- 4) Briefly discuss hyponatremia and its management.
- 5) Discuss cardio renal syndrome.
- 6) Host pathogen interaction and host defence mechanism in UTI.

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D.M. DEGREE EXAMINATION - JULY, 2016

SPECIALITY :: NEPHROLOGY
PAPER - I

BASIC SCIENCES AND APPLIED NEPHROLOGY

Time : 3 Hours

Max. Marks : 100

ANSWER ALL QUESTIONS

- 1) Discuss renal tubular handling of sodium and potassium. 30
- 2) Classify diuretics and their mechanism of action 30

WRITE SHORT NOTES ON:

4x10=40

- 3) Counter current multiplier system in loop of Henle and tubulo glomerular feedback. 36 A
- 4) Toll like receptors and their role in renal disease
- 5) Structure of parathyroid hormone, various assays available and its clinical importance
- 6) Tubular handling of calcium and management of hypercalcemia.

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D.M. DEGREE EXAMINATION – JULY, 2016

SPECIALITY:: NEPHROLOGY

PAPER - IV

ADVANCES IN NEPHROLOGY

Time : 3 Hours

Max. Marks : 100

ANSWER ALL QUESTIONS

- 1) New concepts in pathogenesis of TMA and treatment 30
- 2) Role of various induction immunosuppressive drugs in kidney transplant and describe their mechanism of action and clinical outcomes. 30

WRITE SHORT NOTES ON:

4x10=40

- 3) Salient features of transplantation of human organs and tissues rules 2014.
- 4) Novel biomarkers in glomerular disease
- 5) Role of renal denervation in refractory hypertension.
- 6) Discuss different methods of lymphocyte crossmatch. What is virtual crossmatch?

D.M. DEGREE EXAMINATION NEPHROLOGY-PAPER - I

Basic Sciences And Applied Nephrology

30 m

- 1) Discuss renal acid handling and pathomechanism of renal tubular acidosis
- 2) Discuss the role of 'Klotho – FGF 23 complex' in health and chronic kidney disease
- 3) Enumerate causes for hypokalemia and describe in detail about potassium homeostasis
- 4) The ageing kidney
- 5) Discuss the role of complement in renal disease
- 6) Discuss in detail the pathogenesis of membranous glomerulonephritis and its management
- 7) Discuss the etiopathogenesis of the syndrome of inappropriate secretion of anti diuretic hormone. How can it be recognized and managed?
- 8) Describe Nephron dosing and its clinical relevance
- 9) Discuss the relevant physiological changes of pregnancy and pathogenesis of toxemia of Pregnancy
- 10) Discuss in brief Physiology of Vitamin D, vitamin D analogues and their role in nephrology practice
- 11) Discuss the pathogenesis, evaluation and management of disorders of micturition
- 12) Discuss in brief embryological development of the kidney and its clinical relevance
- 13) Discuss renal handling of sodium and diagnostic approach to hyponatremia
- 14) Discuss aetiology, pathogenesis, clinical features and management of hepato renal syndrome
- 15) Discuss the etiopathogenesis of the syndrome of inappropriate secretion of anti diuretic hormone. How can it be recognized and managed?
- 16) Describe the etiology, clinical manifestations, diagnosis & management of metabolic alkalosis

- 17) Describe the mechanism and types of proteinuria. What are the therapeutic interventions that may be used to reduce proteinuria
- 18) Describe the renin-angiotensin system and its physiologic role. Discuss its role in the pathophysiology of renal disease
- 19) Discuss pathophysiology of proteinuria, classify proteinuria, name diseases which produces different types of proteinuria.
- 20) Describe Nephron dosing and its clinical relevance
- 21) Briefly describe control of renal potassium excretion. Discuss causes and mechanism of hyperkalemia in chronic kidney disease.
- 22) Draw a diagram illustrating entire nephron and its relationship with renal cortex and medulla
- 23) Discuss in detail the pathogenesis of thrombotic microangiopathy and its role in kidney disease
- 24) Discuss the pathogenesis of proteinuria and its implications in renal disease
- 25) Discuss Apoptosis and elaborate its role in renal disease
- 26) Discuss in detail the pathogenesis and management of IgA Nephropathy
- 27) Discuss the diagnostic approach to a patient with hyponatremia. Describe its clinical manifestations and management
- 28) Discuss the mechanisms and types of proteinuria and the measures used to treat glomerular proteinuria
- 29) Discuss the etiology, clinical manifestations, diagnosis and management of metabolic alkalosis
- 30) Describe the rennin-angiotensin system. Discuss its role in the pathophysiology of renal disease
- 31) Describe the handling of calcium by the kidney. Write briefly on Derangement of Calcium metabolism in chronic renal failure
- 32) Classify renal tubular acidosis, how the diagnosis of distal renal tubular acidosis is established and describe the management of congenital distal renal tubular acidosis.
- 33) Describe the renal handling of sodium
- 34) Discuss the Etiology, Pathophysiology and diagnosis of Type IV Renal Tubular Acidosis
- 35) Discuss the physiology of glomerular ultrafiltration and discuss newer equations for gfr estimation and their validation

- 36) Discuss disorders of water balance with note on current therapies
- 37) Discuss handling of Uric Acid by kidney and its role in kidney disease and progression
- 38) Discuss in detail renal circulation and regulation of renal hemodynamics
- 39) Discuss renal tubular handling of sodium and potassium
- 40) Classify diuretics and their mechanism of action

D.M. DEGREE EXAMINATION NEPHROLOGY-PAPER - I

Basic Sciences And Applied Nephrology

Write Short Notes On: 4 x 10=40m

- 1) Name the special stains used in nephropathology and their application
- 2) Algorithmic work - up of polyuria
- 3) Glomerular filtration barrier
- 4) Cerebral salt wasting syndrome
- 5) Aquaporins
- 6) Role of the kidneys in Hypertension
- 7) Cardio-renal syndrome
- 8) Juxta glomerular apparatus
- 9) Role of podocytes in renal disease
- 10) Distal Renal Acidification
- 11) Cigarette smoking and renal disease
- 12) Uric Acid transport in nephron
- 13) Aldosterone in development and progression of renal injury
- 14) Hypercalciuric syndromes
- 15) Renal medullary hypoxia
- 16) Markers of tubular damage
- 17) FGF 23 & its role in chronic kidney disease
- 18) Physiological basis of Tubulo-glomerular feedback
- 19) Role of complement in mediating renal injury
- 20) Oxidative stress in chronic kidney disease
- 21) Role of podocyte in renal diseases
- 22) Pathogenesis and mediators of renal fibrosis
- 23) Klotho and its role in renal diseases
- 24) pathogenesis of Alport's syndrome
- 25) Renal medullary hypoxia
- 26) Markers of tubular damage
- 27) Clinical relevance of urinary sediments
- 28) Magnetic resonance imaging in nephrology
- 29) Mechanisms of hypertension in chronic renal parenchymal disease.
- 30) Prevention of progression of renal disease.
- 31) Hypercalciuric syndromes.
- 32) Autosomal recessive polycystic kidney disease.
- 33) Primary aldosteronism
- 34) Structural and functional changes in the aging kidney
- 35) Biomarkers of acute kidney injury
- 36) Hypercalcemia-Consequences and management
- 37) Glomerulonephritis in Cirrhosis of liver
- 38) Role of cilia in pathogenesis of Polycystic Kidney Disease
- 39) Aldosterone in development and progression of renal injury
- 40) Vesico Ureteric reflux
- 41) Genetics of Diabetic Nephropathy
- 42) Biocompatible fluid for CAPD

- 43) Glomerular Basement Membrane
- 44) Tubular function in ureteral obstruction
- 45) Steroid induced osteoporosis
- 46) Management if ischemic heart disease in patients with chronic kidney disease
- 47) Smoking as a risk factor for renal disease
- 48) HIV Nephropathy
- 49) Pregnancy and Hypertension
- 50) Diet in Renal Disease
- 51) Renal manifestations of Rheumatoid Arthritis
- 52) Role of complement receptors in SLE
- 53) Primary aldosteronism
- 54) Ciliary hypothesis of polycystic kidney disease
- 55) Emphysematous Pyelonephritis
- 56) Pathophysiology of pre-eclampsia
- 57) Pheochromocytoma
- 58) Cystinuria
- 59) Tamm-Horsfall protein
- 60) Thin basement membrane nephropathy
- 61) Calcitriol therapy in chronic renal failure
- 62) Renal involvement in leprosy
- 63) Use of Diuretics in non oedematous states
- 64) Value of renal failure indices in establishing a diagnosis of acute renal failure.
- 65) Non Renal complications of Nephrotic syndrome
- 66) Beta Two Microglobulin in chronic renal failure
- 67) Pulse versus regular therapy with Vitamin D3
- 68) Indications for Renal biopsy in Type II Diabetes Mellitus
- 69) Molecular understanding of slit diaphragm
- 70) Peritoneal membrane structure and function
- 71) Applications and limitations of ultrasound in renal study
- 72) Chloride responsive metabolic alkalosis
- 73) Genetics of polycystic kidney disease and its implication
- 74) Diuretic resistance and how to overcome it
- 75) Major histocompatibility antigens
- 76) Approach to hematuria
- 77) Counter current multiplier system in loop of henle and tubuloglomerular feedback
- 78) Toll like receptors and their role in kidney disease
- 79) Structure of pTH assays available and its clinical importance
- 80) Tubular handling of calcium and management of hypercalcemia

D.M. DEGREE EXAMINATION NEPHROLOGY-PAPER - II

Clinical Nephrology, Dialysis And Kidney Transplantation-I

30m

- 1) Discuss the spectrum of renal diseases in an Oncology unit
- 2) Discuss the pathophysiology and management of sepsis related acute kidney injury
- 3) Discuss the pathogenesis and management of ANCA +ve crescentic glomerulonephritis
- 4) Discuss in detail pathogenesis, types and management of Hemolytic uremic syndrome
- 5) Discuss vascular access for Haemo Dialysis
- 6) Describe briefly about the causes of persistent hypertension in children and its evaluation
- 7) Discuss adequacy of hemodialysis, methods to measure, pit falls. Also discuss clinical implications of measuring adequacy
- 8) Discuss the newer immune-suppressive drugs and their contribution in improving graft Survival
- 9) Discuss in brief pathogenesis, evaluation and management of HIV induced nephropathy
- 10) Elaborate infectious and non-infectious complications of peritoneal dialysis and their Management
- 11) Discuss the pathogenesis and current trends in management of thrombotic microangiopathy
- 12) Write briefly on Renal transplantation across blood group barrier
- 13) Discuss in detail evidence based treatment recommendation for uraemic bleeding
- 14) Current concepts of pathogenesis, diagnosis and management of Recurrent Focal Segmental Glomerulo Sclerosis in the renal allograft
- 15) Describe the inheritance, clinical manifestations, laboratory diagnosis and management of Alport syndrome
- 16) Discuss the role of protocol renal biopsies in the management of renal allograft recipients.
- 17) Describe the etiopathogenesis, clinical manifestations, management and outcome of the hemolytic uremic syndrome
- 18) Describe the protocols for calcineurin inhibitor minimization and avoidance in renal transplantation and discuss their advantages and disadvantages
- 19) Describe etiopathogenesis of cardiovascular disease in early chronic renal failure
- 20) Discuss clinical profile, investigations and management strategy in a patient with hypertension with hypokalemia
- 21) How will you approach investigate and manage a case of hospital acquired acute renal failure in 60 years old man with Type II diabetes admitted with pneumonia and coronary artery disease in cardiology ward?
- 22) Discuss pathogenesis of resistant anemia in a Hemodialysis patient and suggest measures to improve it.
- 23) Discuss JNC-7 and its implications for the Nephrologist
- 24) Manifestations, Treatment and Prevention of CMV disease post-renal transplantation
- 25) Discuss the role of Renin Angiotensin Aldosterone system (RAAS) in progression of

- renal disease and the strategies used to slow progression
- 26) Discuss in detail the pathogenesis, diagnosis and management of Ischaemic Nephropathy
 - 27) Discuss the etiopathogenesis, clinical spectrum, diagnosis and management of ischemic renal disease
 - 28) Discuss the pathogenesis, clinical manifestations, laboratory diagnosis and management of secondary hyperparathyroidism in chronic renal failure.
 - 29) Indications for continuous renal replacement therapy (CRRT). Enumerate modalities of CRRT. Discuss the advantages and disadvantages of CRRT.
 - 30) Describe the renal diseases associated with Hanta Virus infection
 - 31) Indications for initiation of continuous ambulatory peritoneal Dialysis (CAPD) and briefly write about the metabolic complications seen in patients on CAPD.
 - 32) Describe the renal diseases associated with Hepatitis B and Hepatitis C virus Infection
 - 33) Spectrum and clinical picture of parasitic nephropathies in tropics
 - 34) Pathogenesis of preclampsia and management of AKI in pregnancy
 - 35) Discuss FSGS pathological classification and management
 - 36) Discuss plasmapheresis principles indication treatment pharmacokinetics different types advantages disadvantages types of replacement solutions advantages disadvantages
 - 37) Classify RTA causes pathophysiology causes management
 - 38) Uremic toxins acute chronic complications of hemodialysis
 - 39)

D.M. DEGREE EXAMINATION NEPHROLOGY-PAPER - II

Clinical Nephrology, Dialysis And Kidney Transplantation-I

Write Short Notes On: 4 x 10=40m

- 1) IgG4 related renal disease
- 2) Online hemodiafiltration
- 3) Automated peritoneal dialysis
- 4) Transplant glomerulopathy
- 5) Bone Morphogenetic Protein – 7 and kidney.
- 6) Plant toxins and acute kidney injury
- 7) Pregnancy in patients on maintenance hemodialysis
- 8) Calciophylaxis
- 9) C3 Glomerulopathy
- 10) Etiology and Treatment of Hyponatremia
- 11) Haemolytic Uremic Syndrome (HUS)
- 12) Post transplant lymphoproliferative disorder.
- 13) Radiocontrast induced nephropathy.
- 14) Treatment of Acute Kidney Injury in ICU
- 15) Bimodal peritoneal dialysis solutions
- 16) M-tor inhibitors based immunosuppression in renal transplant.
- 17) Role of aldosterone antagonists in renal disease.
- 18) Steroid free protocols in renal transplantation
- 19) Role of statin therapy in dialysis patients.
- 20) Renal disease in multiple myeloma
- 21) Role of mycophenolate mofetil in maintenance of lupus nephritis.
- 22) Current status of mTOR inhibitors in renal transplantation.
- 23) Ultrafiltration failure in peritoneal dialysis.
- 24) Renal involvement in Sickle cell disease.
- 25) Prevention of ARF in intensive care unit
- 26) Non azotemic indications for renal replacement therapy
- 27) Automated peritoneal dialysis.
- 28) Proteinuria: evaluation and Significance.
- 29) Dialysis ascites
- 30) Plasmapheresis in renal disease
- 31) Recurrence of renal disease in the allograft
- 32) Post transplant lymphoproliferative disease.
- 33) Adequacy of Chronic peritoneal dialysis
- 34) Polyoma virus nephropathy in transplant recipients
- 35) Management of early arteriovenous fistula failure
- 36) Renal transplantation in primary hyperoxaluria
- 37) Xanthogranulomatous pyelonephritis
- 38) Dialysis induced arthropathy
- 39) Fibrillary Glomerulopathy

- 40) Progressive multifocal leukoencephalopathy following Renal Transplantation
- 41) Viral infections causing renal allograft dysfunction
- 42) Water treatment for hemodialysis, mention international recommendations of permissible trace elements.
- 43) Sirolimus
- 44) Reperfusion Injury
- 45) Obesity mediated metabolic syndrome and renal disease
- 46) Calciphylaxis and extra osseous calcification in chronic kidney disease
- 47) Erythropoietin induced pure red cell aplasia
- 48) Ultrafiltration in Peritoneal Dialysis
- 49) Skin changes in chronic renal failure
- 50) Post transplant liver dysfunction
- 51) Management of Intra dialytic hypotension
- 52) Organ Preservation
- 53) Post transplant diabetes mellitus
- 54) Cardiovascular calcification in chronic renal failure
- 55) Renal involvement in progressive systemic sclerosis
- 56) Host factors in urinary tract infections.
- 57) Iron supplementation with erythropoietin therapy
- 58) Type II Membrane proliferative Glomerulonephritis
- 59) Renal lesions of Haemolytic Uremic Syndrome (HUS), and describe the treatment of HUS.
- 60) Indications for Heparin Free Haemodialysis. What are the drugs used other than heparin for Anticoagulation in Haemodialysis
- 61) Role of Erythropoietin in predialysis patients.
- 62) HIV Nephrology
- 63) Types of ANCA (Anti Nuclear Cytoplasmic Antibodies) and their diagnostic significance
- 64) Dialysis hypotension
- 65) 3 pore model of PD
- 66) Rescue therapy
- 67) Indian CKD registry
- 68) Bimodal PD solutions
- 69) Contrast induced nephropathy
- 70) RIFLE and AKIN differences advantages disadvantages
- 71) Steroid resistant acute rejection
- 72) Lupus nephritis classification management
- 73) Hyponatremia and management
- 74) Cardiorenal syndrome
- 75) Host pathogen interaction and host defense mechanism in UTI
- 76) Types of temporary vascular access for Haemodialysis enumerate the advantages and disadvantages of these

D.M. DEGREE EXAMINATION NEPHROLOGY-PAPER - III

Clinical Nephrology, Dialysis and Kidney Transplantation-II

30m

- 1) Evaluation and management of a patient with HIV/AIDS presenting with nephrotic syndrome
- 2) Evaluation and management of a renal transplant recipient presenting with graft dysfunction at one year post transplantation
- 3) Describe in detail about diagnosis of brain death, management of the Brain – Dead donor and preservation of deceased donor kidney?
- 4) Discuss the various biomarkers for Acute Kidney injury. Describe in brief about Acute Kidney Injury secondary to Tropical Hemorrhagic Viral Infections?
- 5) Discuss in detail Renin Angiotensin Aldosterone system, its role in CKD and implications of its blockade
- 6) Discuss the clinical features, types and laboratory investigations of Hepatorenal syndrome
- 7) Discuss in detail BK virus infection and its management in the renal transplant recipients
- 8) Discuss the types, clinical features and management of snake bite induced acute kidney injury
- 9) Screening for chronic kidney disease: Tools and challenges
- 10) Discuss in brief pathogenesis and current trends in management of post-transplant lymphoproliferative diseases
- 11) Discuss the pathogenesis, evaluation and management of contrast induced nephropathy
- 12) Discuss the role of plasmapheresis in Nephrology
- 13) Amyloidosis Associated Kidney Disease – Current concepts.
- 14) Discuss recent advances of uraemic calcification.
- 15) Describe the causes, clinical manifestations, investigations and management of acute interstitial nephritis
- 16) Discuss the pathogenesis and management of anemia in chronic renal failure in predialysis patients and in those on maintenance dialysis
- 17) Discuss what is Renal replacement and Renal Regeneration
- 18) Describe recent concepts in Ischemic Nephropathy
- 19) Discuss factors causing cardiovascular calcification in patient undergoing hemodialysis and suggest measures for management.
- 20) Describe newer concepts in understanding and management of glomerular proteinuria.
- 21) Discuss in detail about barriers in Xenotransplantation

- 22) Recent advances in management of pauci-immune crescentic glomerulonephritis
- 23) Discuss in detail the options available for transplantation in sensitized patients.
- 24) Discuss the current status of gene therapy in renal disease

- 25) Describe the causes, clinical manifestations, investigations & management of acute interstitial nephritis
- 26) Describe the classification of the systemic vasculitides. Describe the clinical manifestations,
- 27) investigations and management of micro-scopic polyarteritis

- 28) Describe the peritoneal equilibration test and its utility. Discuss the methods used to assess the adequacy of continuous ambulatory peritoneal dialysis.
- 29) Discuss the efficacy of sirolimus containing immunosuppressive regimens in renal transplantation. Describe its adverse effects and drug interactions.

- 30) Indications, precautions while using and advantages of angiotensin converting enzyme inhibitor drugs
- 31) Discuss newer strategies of immunosuppression following renal transplantation

- 32) Role of genetic studies and possible role of gene therapy in renal disease.
- 33) Impact of the transplantation of human organs Act 1994 (HOTA) on renal transplantation in India. Describe briefly the strengths and weak points of HOTA
- 34) Mechanism of tolerance . strategies to induce tolerance in recipient
- 35) Acute complications in HD . current concepts in dry weight assessment and hypotension
- 36) Different viral infections in renal transplant dicussCMV infection management prophylaxis treatment
- 37) CAPD peritonitis management recent guidelines
- 38) Incidence risk factors management of PTLD
- 39) Diagnosis of DBD and preservation of deceased donor kidney

D.M. DEGREE EXAMINATION NEPHROLOGY-PAPER - III

Clinical Nephrology, Dialysis and Kidney Transplantation-II

4 x 10=40m

- 1) Dialysis dysequilibrium syndrome
- 2) Warfarin nephropathy
- 3) Adaptive FSGS (Focal and Segmental Glomerulosclerosis)
- 4) Cisplatin nephrotoxicity
- 5) Discuss briefly about the care of paediatric ESRD patient and dialysis modalities?
- 6) Explain about causes of fluid overload and its management in peritoneal dialysis patients?
- 7) Nuclear medicine imaging of graft function & dysfunction?
- 8) Innovative transplant protocols?
- 9) Radiation Nephritis
- 10) Non-infectious causes of cloudy peritoneal dialysate
- 11) Host factors in Urinary tract infection
- 12) Water treatment for hemodialysis unit
- 13) Chyluria
- 14) Genetic susceptibility in SLE
- 15) Catheter induced infections in hemodialysis
- 16) Treatment of Hepatitis C in Hemodialysis
- 17) Congenital nephrotic syndrome
- 18) Types and use of phosphate binders in dialysis patients
- 19) BK virus nephropathy
- 20) Assessment of dry weight in dialysis patient
- 21) Sodium modeling in hemodialysis
- 22) Vesico-ureteric reflux disease.
- 23) Clinical application and use of Icodextrin.
- 24) Renal amyloidosis.
- 25) Toll like receptors and the kidney.
- 26) HIV nephropathy.
- 27) Antibody mediated rejection.
- 28) Cell based classification of glomerular diseases.
- 29) Lithium nephrotoxicity
- 30) Circadian changes in blood pressure and its clinical implications
- 31) Water treatment for a hemodialysis unit.
- 32) Calcific uremic arteriolopathy.
- 33) Nephrogenic systemic fibrosis
- 34) Pruritus associated with chronic kidney disease
- 35) Prevention of hepatitis C in hemodialysis units
- 36) Antibody mediated allograft rejection
- 37) BMP (Bone morphogenic protein)
- 38) Approach to CMV infection in renal transplant patients and its treatment
- 39) Management of infection of vascular accesses
- 40) Congenital Obstructive Uropathy

- 41) Mechanisms of initiation of Renal Vasculitis
- 42) HUS-TTP Syndrome
- 43) Collapsing Glomerulopathy
- 44) Calciphylaxis
- 45) Renal Regeneration
- 46) Non Heart Beating Donor
- 47) Current status of tacrolimus in renal transplant
- 48) Role of plasmapheresis in renal disease
- 49) The role of stains in therapy of Chronic kidney Disease
- 50) Stem cell therapy in ARF (Acute Renal Function)
- 51) Role of newer PD solutions in clinical practice
- 52) Role of Haemodiafiltration in End Stage renal disease
- 53) Primary hyperoxaluria
- 54) Tacrolimus versus cyclosporine use after renal transplantation
- 55) Predictors of mortality in patients on long term dialysis.
- 56) Acquired Ultrafiltration failure on continuous ambulatory peritoneal dialysis
- 57) Sympathetic hyperactivity in chronic renal failure
- 58) Protocol biopsies after kidney transplantation
- 59) Management of IgA nephropathy
- 60) Body temperature regulation and monitoring during hemodialysis
- 61) Immuntactoid glomerulonephritis
- 62) Augmentation of vaccine response to hepatitis B vaccine
- 63) Role of plasma exchange in renal diseases
- 64) Lithium Nephrotoxicity
- 65) Interleukin – 2 receptor blockers in renal transplantation
- 66) Indications and advantages of use of FK 506 (TACROLENUS)
- 67) Define Dry Weight, what are the methods of assessment of dry weight.
- 68) Role of Homocysteine in vascular disease in patients with chronic renal failure
- 69) Landmarks in transplant history
- 70) Implantable artificial kidney
- 71) UFF in PD
- 72) Deceased donor maintenance in ICU
- 73) Dialyser reuse
- 74) Management of steroid resistant NS in adults
- 75) Chronic malarial nephropathy
- 76) Cerebral salt wasting syndrome
- 77) Water treatment for HD
- 78) Treatment of Hepatitis C in dialysis outcome of KTx in Hep C and B
- 79) Diagnosis and management of HUS
- 80) Rituximab indications and mechanism of action

D.M. DEGREE EXAMINATION NEPHROLOGY-PAPER – IV

30 marks

1. Discuss the plan, procedure, protocol and challenges in ABO incompatible renal transplantation
2. Discuss the pathogenesis, pathology and management of glomerulopathies associated with dysregulation of alternate complement pathway
3. Discuss tolerance in renal transplantation
4. Discuss the classification and recent advances in management of lupus nephritis
5. Discuss the diagnosis and management of antibody mediated rejection
6. Discuss in detail clinical features and diagnosis of pregnancy induced hypertension. Add a note on recent advances of Pathogenesis and management of pregnancy induced hypertension
7. Discuss recent advances in pathogenesis, markers of progression and management of IgANephropathy
8. Discuss pathogenesis and management of chronic allograft nephropathy
9. Discuss the recent classification, pathogenesis and management of Hepatorenal syndrome
10. Discuss advances in genetics and pathogenesis of adult polycystic kidney disease
11. Syndromes of heart and kidney, management of refractory HF
12. Structure function mechanism of PD and non infective complications
13. Renal denervation and implications in CKD
14. Membranous nephropathy etiology pathogenesis diagnosis treatment recent advances in diagnosis and treatment
15. New concepts in pathogenesis of TMA and treatment
16. Induction immunosuppression drugs in kidney Tx MOA and clinical outcomes
- 17.

D.M. DEGREE EXAMINATION NEPHROLOGY-PAPER – IV

Write Short Notes On: 4 x 10=40m

- 1) Newer dialysis solutions for CAPD
- 2) Urinary biomarkers for diagnosis of acute rejection
- 3) High flux hemodialysis
- 4) Bile cast nephropathy
- 5) Fibroblast growth factor – 23.
- 6) Peritoneal sclerosis
- 7) Pharmacogenetics in Renal disease
- 8) Belatacept
- 9) Gene micro assay
- 10) Vasopressin Receptor Antagonists
- 11) Management of HIV associated Nephropathy
- 12) Cinacalcet
- 13) Daily hemodialysis
- 14) Renal involvement in antiphospholipid syndromes
- 15) Pathogenesis and management of post transplant hyperglycemia
- 16) Newer erythropoiesis agents
- 17) Bi-modal peritoneal dialysis.
- 18) Management of Hepatitis C infection in dialysis patients.
- 19) Role of adipocytokines in health and CKD.
- 20) Role of protocol biopsies in renal transplantation.
- 21) Anti angiogenic therapy
- 22) Mineralocorticoid receptor blocking
- 23) Population studies in CKD in India
- 24) Renal bio engineering technology
- 25) Newer fluids PD uses advantage disadvantages
- 26) Statins and CKD
- 27) Pathogenesis and management of post transplant hyperglycemia
- 28) KDIGO anemia management in CKD
- 29) Salient features THOA 2014 rules
- 30) Novel biomarkers in glomerular disease
- 31) Renal denervation in refractory hypertension
- 32) Different methods of lymphocyte crossmatch. What is virtual crossmatch
- 33)