

MANIPAL ACADEMY OF HIGHER EDUCATION
DM (NEPHROLOGY) DEGREE EXAMINATION – JULY 2018
SUBJECT: PAPER I: BASIC SCIENCE

Monday, July 09, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long questions:**

1. Describe the human complement system, its role in kidney disease and describe pathogenesis, pathology and clinical features of atypical hemolytic uremic syndrome.

(20 marks)

2. Describe acidification mechanisms by kidney and clinical features of distal renal tubular acidosis.

(20 marks)

3. **Write short notes on:**

3A. Estimated glomerular filtration rate

3B. Renin angiotensin aldosterone system

3C. Countercurrent multiplication

3D. Classification of diuretics

3E. Potassium homeostasis

3F. Overview of kidney development

(10 marks × 6 = 60 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
DM (NEPHROLOGY) DEGREE EXAMINATION – JULY 2018

SUBJECT: PAPER II: CLINICAL NEPHROLOGY

Tuesday, July 10, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long questions:**

1. Discuss the pathophysiology, pathogenesis, clinical features and management of a patient with atypical hemolytic syndrome.

(20 marks)

2. Discuss pathogenesis, classification of cardiorenal syndromes and management of acute cardiorenal syndrome type 1.

(20 marks)

3. **Write short notes on:**

3A. Hepatitis C virus induced renal disease

3B. Radio contrast nephropathy

3C. Analgesic nephropathy

3D. Prevention of chronic kidney disease progression

3E. Vitamin D analogues

3F. Erythropoietin hyporeponsiveness

(10 marks × 6 = 60 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
DM (NEPHROLOGY) DEGREE EXAMINATION – JULY 2018
SUBJECT: PAPER III: RENAL REPLACEMENT THERAPY

Wednesday, July 11, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long question:**

1. Discuss the immunology of renal allograft rejection, its classification and management of acute allograft rejection.

(20 marks)

2. Discuss the slow continuous dialysis therapies.

(20 marks)

3. **Short notes:**

3A. Renal preservation during kidney donation

3B. Mycophenolate mofetil

3C. Dialyzer reuse

3D. Prevention, diagnosis and treatment of cytomegalovirus disease in renal transplant.

3E. List complications of venous catheter access for haemodialysis.

3F. Mechanical complications complications of peritoneal dialysis.

(10 marks × 6 = 60 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION
DM (NEPHROLOGY) DEGREE EXAMINATION – JULY 2018
SUBJECT: PAPER IV: RECENT ADVANCES

Thursday, July 12, 2018

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

Answer ALL the questions.

Long Questions:

1. Discuss pathophysiology, pathogenesis, epidemiology and management of anemia in chronic kidney disease.

(20 marks)

2. Describe the pathogenesis, pathophysiology, mechanisms of renal disease in obesity and its management.

(20 marks)

3. **Write short notes on:**

3A. Plasma exchange in rapidly progressive glomerulonephritis.

3B. Treatment and prognosis of primary focal segmental glomerulosclerosis.

3C. Renal cortical necrosis.

3D. Management of progressive IgA Nephropathy.

3E. Hepatitis C virus induced renal disease.

3F. Vitamin D analogues.

(10 marks × 6 = 60 marks)

