



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2019/2020 ACADEMIC YEAR**

SECOND YEAR, FIRST TRIMESTER EXAMINATIONS

**FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN medical social work**

COURSE CODE: Nms 326

**COURSE TITLE: NEPHROLOGY AND ORGAN TRANSPLANT FOR SOCIAL
WORKERS**

(MAIN EXAMINATION)

DATE: 18/04/2023

TIME: 0800-1100am

INSTRUCTIONS TO CANDIDATES

ANSWER ALL QUESTIONS

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

SECTION ONE: MULTIPLE CHOICE QUESTIONS (20 MARKS)

1. The following structures is found within the urinary system
 - a. Gall bladder
 - b. Ureter
 - c. Sphincter of Oddi
 - d. Larynx
2. Each kidney contains about a million nephrons, each of which begins in a filtration apparatus called:
 - a. The proximal tubule
 - b. The glomerular capsule
 - c. The loop of Henle
 - d. Pyramids of the kidney
3. The hormone produced by the kidneys that plays a role in the production of red blood cells is
 - a. Adrenaline
 - b. Oxytocin
 - c. Aldosterone
 - d. Erythropoietin
4. Ultrafiltration by the glomerulus is enhanced by:
 - a. Large surface area of the capillaries
 - b. Thin semipermeable barrier
 - c. High pressure in the capillaries
 - d. All of the above
5. Through which vessel does blood leave the glomerulus?
 - a. Afferent arteriole
 - b. Renal calyx
 - c. Efferent arteriole
 - d. Renal vein
6. The process of voiding urine from the bladder is known as:
 - a. Menstruation
 - b. Implantation
 - c. Excretion
 - d. Micturition
7. Consent for organ donation is best obtained by:
 - a. Transplant surgeon
 - b. An intern
 - c. A medical social worker
 - d. A professional trained in dealing with organ donation issues
8. The following conditions is an absolute contraindication to organ donation?
 - a. Bacteremia
 - b. Squamous cell cancer of the skin
 - c. HIV infection

- d. Hospital - acquired pneumonia
9. The following statements about an arterio-venous fistula is true?
- (a) It is contraindicated if the left ventricular ejection fraction is less than 40 %
 - (b) The blood flow is good if it remains full of blood when the arm is elevated
 - (c) The dialysis needle is inserted as near to the anastomosis as possible
 - (d) The risk of infection is lower than with a dialysis catheter
10. The following statements about a peritoneal dialysis catheter is true?
- (a) Fluid should take under 20 min to drain out
 - (b) The tip should be located in the centre of the abdomen
 - (c) Fluid should be slightly cloudy on draining out
 - (d) Dried exudate ('crusting') at the exit site should be treated with antibiotics
11. The following statements about a kidney transplant patient is false?
- (a) Infections after 12 months are usually due to conventional organisms
 - (b) Post-transplant lymphoproliferative disease is due to T cell proliferation
 - (c) Cotrimoxazole is used to prevent *Pneumocystis jiroveci* pneumonia (PJP)
 - (d) The commonest site of malignancy is the skin
12. A 30 y.o. female patient is undergoing hemodialysis with an internal arteriovenous fistula in place. What do you do to prevent complications associated with this device?
- a. Insert I.V. lines above the fistula.
 - b. Avoid taking blood pressures the in arm with the fistula.
 - c. Palpate pulses above the fistula.
 - d. Report a bruit or thrill over the fistula to the doctor.
13. A patient becomes restless and tells you she has a headache and feels nauseous during hemodialysis. Which complication do you suspect?
- a. Infection
 - b. Disequilibrium syndrome
 - c. Air embolus
 - d. Acute hemolysis
14. A patient is complaining of muscle cramps while undergoing hemodialysis. Which intervention is effective in relieving muscle cramps?
- a. Increase the rate of dialysis
 - b. Infuse normal saline solution
 - c. Administer a 5% dextrose solution
 - d. Encourage active ROM exercises
15. A patient with ESRD has an arteriovenous fistula in the left arm for hemodialysis. Which intervention do you include in his plan of care?
- a. Apply pressure to the needle site upon discontinuing hemodialysis
 - b. Keep the head of the bed elevated 45 degrees
 - c. Place the left arm on an arm board for at least 30 minutes
 - d. Keep the left arm dry
16. A patient had surgery to form an arteriovenous fistula for hemodialysis. Which information is important for providing care for the patient?
- a. The patient shouldn't feel pain during initiation of dialysis
 - b. The patient feels best immediately after the dialysis treatment
 - c. Using a stethoscope for auscultating the fistula is contraindicated

- d. Taking a blood pressure reading on the affected arm can cause clotting of the fistula
17. A patient with diabetes mellitus and renal failure begins hemodialysis. Which diet is best on days between dialysis treatments?
 - a. Low-protein diet with unlimited amounts of water
 - b. Low-protein diet with a prescribed amount of water
 - c. No protein in the diet and use of a salt substitute
 - d. No restrictions
 18. After the first hemodialysis treatment, your patient develops a headache, hypertension, restlessness, mental confusion, nausea, and vomiting. Which condition is indicated?
 - a. Disequilibrium syndrome
 - b. Respiratory distress
 - c. Hypervolemia
 - d. Peritonitis
 19. Which criterion is required before a patient can be considered for continuous peritoneal dialysis?
 - a. The patient must be hemodynamically stable
 - b. The vascular access must have healed
 - c. The patient must be in a home setting
 - d. Hemodialysis must have failed
 20. Immunosuppression following Kidney transplantation is continued:
 - a. For life
 - b. 24 hours after transplantation
 - c. A week after transplantation
 - d. Until the kidney is not anymore rejected

SHORT ANSWER QUESTIONS (40 MARKS)

1. State five (5) functions of the kidneys (5 marks)
2. State five (5) causes of kidney disease (5 marks)
3. Explain four (4) roles of nephrology social workers in prevention of renal disease in the community (8 marks)
4. State four (4) causes of depression among patients undergoing dialysis (8 marks)
5. State four (4) reasons why peritoneal dialysis is preferred over hemodialysis (8 marks)
6. Elucidate six (6) roles of the family in nephrology (6 marks)

LONG ANSWER QUESTIONS

1. Mr. Tee 34 years old, a business man in the local market has been admitted for treatment of end stage renal disease
 - a. Define hemodialysis (2 marks)
 - b. Explain any 3 arteriovenous accesses used in dialysis (6 marks)
 - c. Describe the process of hemodialysis (12 marks)
2. As a nephrology social worker one is required to uphold the patients' rights

- a. Describe five (5) ethical principles in nephrology and organ transplant (10 marks)
- b. Explain five rights of a kidney donor and five rights of a kidney recipient (10 marks)

THE END