



(University of Choice)

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

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR**

THIRD YEAR, SECOND 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: 8TH APRIL, 2024

TIME: 8AM-11AM

INSTRUCTIONS TO CANDIDATES

ANSWER ALL QUESTIONS

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

SECTION ONE: MULTIPLE CHOICE QUESTIONS (20 MARKS)

1. Through which vessel does blood leave the glomerulus?
 - a. Afferent arteriole
 - b. Renal calyx
 - c. Efferent arteriole
 - d. Renal vein.
2. The hormone produced by the kidneys that plays a role in the production of the red blood cells is?
 - a. Adrenaline
 - b. Oxytocin
 - c. Aldosterone
 - d. Erythropoietin.
3. When performing a physical assessment which, which sensation would you expect to detect when palpating the site of the arteriovenous fistula?
 - a. A pulse
 - b. A bruit
 - c. A thrill
 - d. A click.
4. Which of the following pre assessment is important for a kidney transplant patient?
 - a. Urine output
 - b. Signs of graft rejection
 - c. Signs and symptoms of rejection
 - d. Client support system and understanding of lifestyle changes.
5. A 55-year old male patient is diagnosed with chronic kidney disease. The patient recent GFR was 25ml/min. What stage of chronic kidney disease is this known as?
 - a. Stage 1
 - b. Stage 3
 - c. Stage 4
 - d. Stage 5
6. The following structures is found within the urinary system
 - a. Gall bladder
 - b. Ureter
 - c. Sphincter of Oddi
 - d. Larynx
7. 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

8. 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
9. The process of voiding urine from the bladder is known as:
 - a. Menstruation
 - b. Implantation
 - c. Excretion
 - d. Micturition
10. 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
11. 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
12. 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
13. 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
14. 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
15. A 30 year old 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.
16. 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
17. 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
18. 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
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. With the aid of a well labelled diagram illustrate the genitourinary system organs(5 mrks)
2. State five (5) symptoms 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. Explain the concept of advanced directives and living wills in nephrology (8 marks)
5. State four (4) reasons why hemodialysis patients are prone to depression (8 marks)
6. Elucidate six (6) roles of the family in organ transplant (6 marks)

LONG ANSWER QUESTIONS

1. Mr. Ree 44 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 the THREE (3) Principles of dialysis (6 marks)
 - c. Discuss FOUR (4) challenges that hemodialysis clients like Mr. Ree face and how those challenges can be mitigated (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