



BHARAT SEVAK SAMAJ

NATIONAL DEVELOPMENT AGENCY, PROMOTED BY GOVERNMENT OF INDIA
CENTRAL BOARD OF EXAMINATIONS
BSS NATIONAL VOCATIONAL EDUCATION MISSION

AHE025-BSS DIPLOMA IN DIALYSIS TECHNOLOGY

TWO YEARS (FIRST YEAR) EXAMINATION NOV-2015

AHE025-01 COMMUNICATIVE ENGLISH AND COMPUTER FUNDAMENTALS

TIME: 3 Hours

Marks: 100

INSTRUCTIONS

- * 33 questions are there in total
- * Write answers to each question in proportion to the mark allotted
- * During the first 15 minutes read the questions carefully

I. FILL IN THE BLANKS

1 x 10 = 10

- 1) Pronouns are used instead of
- 2) Raju the tallest in our class
- 3) Brought is verb.
- 4) It is cold today.....
- 5) He is manager.
- 6) Let the door opened.
- 7) -----is example for network operating system.(windows nt)
- 8) Below the menu bar bar appears
- 9) In Windows function key used to get help
- 10) Ctrl+C is the short cut for.....

II. DEFINE THE FOLLOWING

2 x 10 = 20

- 1) Define vowels?
- 2) Define kinds of countable Nouns?
- 3) What is meant by masculine Gender?
- 4) Spin box
- 5) Hardware
- 6) Desktop
- 7) Taskbar
- 8) Explain windows explorer
- 9) Enter
- 10) Storage device

III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS**5 x 5 = 25**

- 1) Define kinds of adjectives
- 2) Define kinds of participle?
- 3) Explain analog and hybrid computer
- 4) Explain any five functions in MS Excel
- 5) Print preview
- 6) Importance of information technology
- 7) Airbrush
- 8) Shutdown the computer

IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS**15 x 3 = 45**

- 1) Write about the conversation to two person?
- 2) Explain structure of computer
- 3) Explain Internet, Intranet, search engine and Website ?
- 4) Explain about MS Excel application
- 5) Describe status bar



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AHE025-BSS DIPLOMA IN DIALYSIS TECHNOLOGY

TWO YEARS (FINAL YEAR) EXAMINATION NOV-2015

AHE025-09 GENERAL ORIENTATION IN NEPHROLOGY, HISTORY & PRINCIPLES OF DIALYSIS -

TIME: 3 Hours

Marks: 100

INSTRUCTIONS

- * 33 questions are there in total
- * Write answers to each question in proportion to the mark allotted
- * During the first 15 minutes read the questions carefully

I. FILL IN THE BLANKS

1 x 10 = 10

- 1) The end of the spinal cord which resembles a horse tail is called -----
- 2) Hospital acquired infection is known as-----
- 3) Antidote of heparin is-----
- 4) An infection occurring during antimicrobial treatment for another infection is --
- 5) Perception perceived in the absence of external stimulus is known as -----
- 6) Name the functional unit of kidney?
- 7) Define GFR.
- 8) Name one tubular function test.
- 9) Name the test which will help you to calculate renal plasma flow
- 10) what is the normal serum calcium level?

II. DEFINE THE FOLLOWING

2 x 10 = 20

- 1) Name any two conditions that leads to damage of renal tubules
- 2) Illustrate the contents of dialysate using a pie diagram
- 3) List the members involved in HD care team.
- 4) Oliguria
- 5) Drug
- 6) Disinfection
- 7) Write the formula to calculate renal failure ?
- 8) Mention any two conditions which will lead to CRF ?
- 9) Name any two conditions that leads to damage of renal tubules ?
- 10) Define convection ?

III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS**5 x 5 = 25**

- 1) Explain the structure of Nephron with a neat diagram.
- 2) Explain with a suitable illustration the action of positive and negative pressure in dialysis
- 3) Explain the structure of Nephron with a neat diagram ?
- 4) Compare and contrast the normal kidney function with dialysis ?
- 5) Write the formula to calculate creatinine clearance. Mention any one condition where creatinine clearance is decreased
- 6) Endocrine functions of kidney.
- 7) Write briefly about Respiratory alkalosis.
- 8) Counter current mechanism.

IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS**15 x 3 = 45**

- 1) Explain in detail with suitable illustration the various scientific principle used in dialysis.
- 2) Explain in detail about the acid base status and how it can be managed in a dialysis patient
- 3) Explain in detail with suitable illustration the various scientific principle used in dialysis ?
- 4) Explain in detail about the acid base status and how it can be managed in a dialysis patient ?
- 5) Explain the history of Dialysis



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AHE025-BSS DIPLOMA IN DIALYSIS TECHNOLOGY
TWO YEARS (FINAL YEAR) EXAMINATION NOV-2015
AHE025-10 PERITONEAL & RECENT ADVANCE IN DIALYSIS - II

TIME: 3 Hours

Marks: 100

INSTRUCTIONS

- * 33 questions are there in total
- * Write answers to each question in proportion to the mark allotted
- * During the first 15 minutes read the questions carefully

I. FILL IN THE BLANKS

1 x 10 = 10

- 1) Define mass transfer coefficient.
- 2) Name any two ways to remove solutes that affect a dialyzer's clearance.
- 3) Define ultrafiltration coefficient.
- 4) Name any two dietary sources rich in phosphorous
- 5) Name the buffer used in PD fluids.
- 6) Mention the concentration of potassium in PD fluids.
- 7) Optimally PD should not be initiated until how many days after catheter placement.
- 8) Name the parts of peritoneum.
- 9) Mention one method to assess the adequacy of peritoneal dialysis
- 10) Mention the concentration of Mg in PD fluid.

II. DEFINE THE FOLLOWING

2 x 10 = 20

- 1) Name any two indication where catheters are used instead of AV fistula
- 2) Mention the two types of peritoneal dialysis regimen.
- 3) Write the equation to correct the creatinine levels in dialysate and serum
- 4) Write the formula to calculate intraperitoneal residual volume.
- 5) How will you diagnose early ultrafiltration failure
- 6) What is mass transfer area co-efficient.
- 7) Mention any two complications of peritoneal dialysis.
- 8) Mention any two advantage of peritoneal dialysis over hemodialysis
- 9) Types of PD catheters.
- 10) Name the blood vessels which supplies the peritoneum

III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS**5 x 5 = 25**

- 1) Predialysis assessment of catheter use
- 2) Write about urea kinetic modeling and pre and post dialysis BUN measurement
- 3) Calculation of transmembrane pressure
- 4) Write briefly about dialyzer reprocessing documents.
- 5) Explain briefly about peritoneal equilibration test.
- 6) Explain the importance of Kidney
- 7) Explain the role of Nurse for Dialysis Patient
- 8) write about Peritoneal

IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS**15 x 3 = 45**

- 1) Explain in detail the principles procedure follow up and complication of peritoneal dialysis.
- 2) Explain in detail the principle and procedure of hemodialysis
- 3) How is chronic kidney disease treated? What are symptoms?
- 4) How will you advise to patients for care of their I.J.V. and femoral?
- 5) What'll you take care for normal patient's dialysis and positive patient's dialysis?



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AHE025-BSS DIPLOMA IN DIALYSIS TECHNOLOGY
TWO YEARS (FINAL YEAR) EXAMINATION NOV-2015
AHE025-11 DIALYSIS - PATIENT CARE MANAGEMENT - II

TIME: 3 Hours

Marks: 100

INSTRUCTIONS

- * 33 questions are there in total
- * Write answers to each question in proportion to the mark allotted
- * During the first 15 minutes read the questions carefully

I. FILL IN THE BLANKS

1 x 10 = 10

- 1) What is short daily HHD?
- 2) Mention any two symptoms of High BUN?
- 3) What is HIPAA?
- 4) What is BRINE?
- 5) Expand the term BONENT?
- 6) Define reverse osmosis?
- 7) What are stents?
- 8) What is trendelenburg position
- 9) Name any one Vasoconstrictor
- 10) What is sieving co-efficient.

II. DEFINE THE FOLLOWING

2 x 10 = 20

- 1) Mention any two function of PCT?
- 2) Name any two function of calcitriol
- 3) Mention any two causes for post renal causes of renal failure?
- 4) Mention any two acute complications of chronic renal failure?
- 5) What is NHHD?
- 6) Mention two causes for hyperkalemia
- 7) Mention two symptom of hyponatremia
- 8) Mention two causes for anemia in CRF patient
- 9) Mention the normal systolic and diastolic blood pressure in a normal healthy adult?
- 10) Mention the normal fasting and post prandial blood glucose level

III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS**5 x 5 = 25**

- 1) What is your role in Anemia management in chronic renal failure
- 2) Laboratory assessment of glomerular function test
- 3) Write briefly about amyloidosis
- 4) Explain briefly about your role in electrolyte management in a dialysis patient
- 5) Explain how will you manage bleeding problem during dialysis.
- 6) What is E.S.R.D.?
- 7) What advice will you give to patients for healthy life?
- 8) How many options for C.R.F patients, when they knowing that their kidneys are not working?

IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS**15 x 3 = 45**

- 1) Explain in detail about nutritional management of a dialysis patients.
- 2) Explain the detail the various clinical and social aspects involved in the self management of patient who undergo dialysis.
- 3) What kidney do in our body?
- 4) What is heamodialysis does & adequacy?
- 5) What is the role of water treatment plant for dialysis?



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TWO YEARS (FIRST YEAR) EXAMINATION NOV-2015

AHE025-02 GENERAL ORIENTATION IN NEPHROLOGY, HISTORY & PRINCIPLES OF DIALYSIS -

TIME: 3 Hours

Marks: 100

INSTRUCTIONS

- * 33 questions are there in total
- * Write answers to each question in proportion to the mark allotted
- * During the first 15 minutes read the questions carefully

I. FILL IN THE BLANKS

1 x 10 = 10

- 1) The buffers used in hemodialysis is
- 2) The constant proportion of the dialysate is
- 3) Solutes move across the semipermeable membrane in conjunction with water movement is
- 4) First screening for HIV is
- 5) What is the structural unit of kidney?
- 6) Name one tubular function test.
- 7) Define Microalbuminuria.
- 8) Normal reference range for serum calcium level?
- 9) Which was the first dialyzer to be produced in mass?
- 10) What is the normal GFR?

II. DEFINE THE FOLLOWING

2 x 10 = 20

- 1) infection
- 2) Mass transfer coefficient
- 3) Dialysate
- 4) What is isosthenuria? Mention one condition associated with isosthenuria?
- 5) Write briefly about Respiratory alkalosis?
- 6) Define osmolarity.
- 7) Two causes for secondary hyperparathyroidism.
- 8) Name any two conditions that lead to damage of renal tubules.
- 9) Define convection.
- 10) Define clearance.

III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS**5 x 5 = 25**

- 1) Write the formula to calculate creatinine clearance. Mention any one condition where creatinine clearance is decreased.
- 2) Write briefly about Respiratory alkalosis.
- 3) Cerebro spinal fluid
- 4) Types of defence mechanism
- 5) Metabolic acidosis ?
- 6) Body buffers ?
- 7) Name any three factors which affect diffusion.
- 8) Explain the structure of Nephron with a neat diagram.

IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS**15 x 3 = 45**

- 1) Principles of dialysis
- 2) Principles of sterilization and precautions
- 3) Different ways of sterilization
- 4) Explain in detail the structure of Kidney with suitable illustration.
- 5) Explain in detail with suitable illustration the various scientific principle used in dialysis.



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AHE025-BSS DIPLOMA IN DIALYSIS TECHNOLOGY

TWO YEARS (FIRST YEAR) EXAMINATION NOV-2015

AHE025-03 PERITONEAL & RECENT ADVANCE IN DIALYSIS - I

TIME: 3 Hours

Marks: 100

INSTRUCTIONS

- * 33 questions are there in total
- * Write answers to each question in proportion to the mark allotted
- * During the first 15 minutes read the questions carefully

I. FILL IN THE BLANKS

1 x 10 = 10

- 1) M.R.I. means _____
- 2) The most common type of native AVF links ----- and -----.
- 3) What is deionized water? -----
- 4) Define mass transfer coefficient.
- 5) Mention one method to assess the adequacy of peritoneal dialysis.
- 6) Mention the concentration of Mg in PD fluid
- 7) What is the structural unit of kidney?
- 8) Name one artery which supplies kidney.
- 9) What is the size of normal kidney?
- 10) Name the test which will help you to calculate renal plasma flow.

II. DEFINE THE FOLLOWING

2 x 10 = 20

- 1) Which are Causes of C.R.F.?
- 2) What is the Haemo dialysis?
- 3) Steal syndrome ?
- 4) Hemodialysis Team ?
- 5) How will you initiate dialysis through AV fistula?
- 6) First use syndrome ?
- 7) Mention the two types of peritoneal dialysis regimen.
- 8) Mention any two advantage of peritoneal dialysis over hemodialysis
- 9) Write the formula to calculate anion gap and mention one condition which is associated with increased anion gap.
- 10) Give any two nutritional suggestions to patient to maintain phosphorous level.

III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS**5 x 5 = 25**

- 1) How will you measure dialyzer effectiveness?
- 2) CAPD procedure ?
- 3) Name any three complications of graft and explain than
- 4) Write about urea kinetic modeling and pre and post dialysis BUN measurement
- 5) Glomerular function tests.
- 6) Principle of Dialysis.
- 7) Complications of Chronic Renal failure.
- 8) How will you correct anemia in a case of CRF.

IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS**15 x 3 = 45**

- 1) Write Post-Operative Care of the kidney Transplantation
- 2) Describe the predialysis setup of a hemodialysis machine and extracorporeal circuit ?
- 3) Explain in detail the principle and procedure of hemodialysis.
- 4) Explain in detail the structure of Kidney with suitable illustration.
- 5) Explain in detail the role of kidney and lung in regulation of acid base balance.



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AHE025-BSS DIPLOMA IN DIALYSIS TECHNOLOGY
TWO YEARS (FIRST YEAR) EXAMINATION NOV-2015
AHE025-04 DIALYSIS-PATIENT CARE MANAGEMENT -I

TIME: 3 Hours

Marks: 100

INSTRUCTIONS

- * 33 questions are there in total
- * Write answers to each question in proportion to the mark allotted
- * During the first 15 minutes read the questions carefully

I. FILL IN THE BLANKS

1 x 10 = 10

- 1) What is the normal Serum potassium level? _____
- 2) Mention any two symptoms of High BUN?
- 3) What is BRINE?
- 4) What are stents?
- 5) Name any one Vasoconstrictor.
- 6) Two main type of dialysis.
- 7) Two types of ultrafiltration system.
- 8) Define osmosis.
- 9) Range of sodium and calcium in dialysate.
- 10) Give one reason for why patients cannot have an AVF.

II. DEFINE THE FOLLOWING

2 x 10 = 20

- 1) Two Causes for pruritis in CKD ?
- 2) What are the facts about potassium that an HD patient need to know?
- 3) Give any two useful self management tips for a patient on HD ?
- 4) Symptoms of uremia ?
- 5) Mention any two function of PCT?
- 6) Steal syndrome.
- 7) Predialysis assessment for AV fistula
- 8) Describe Dialysis membrane.
- 9) First use syndrome.
- 10) AV graft complications.

III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS**5 x 5 = 25**

- 1) How many types of peritoneal Dialysis and give detail in C.A.P. Dialysis?
- 2) What are Hang necessary for the long time use of satisfactory A.V. Fistula?
- 3) Name the three options available for a kidney transplant.
- 4) What is your role in Anemia management in chronic renal failure
- 5) Write briefly about amyloidosis.
- 6) Explain briefly about your role in electrolyte management in a dialysis patient.
- 7) Write briefly about dialyzer reprocessing procedure.
- 8) Quality of RO water.

IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS**15 x 3 = 45**

- 1) Identify causes, signs and symptoms and presentation of clinical and technical complications that may occur during dialysis.
- 2) Identify the vital signs and parameters that should be monitored before, during and after dialysis ?
- 3) Lab workup of a patient before hemodialysis ?
- 4) Explain the detail the various clinical and social aspects involved in the self management of patient who undergo dialysis.
- 5) Components and functions of water treatment system.