CENTRAL BHARAT SEVAK SAMAJ

NATIONAL DEVELOPMENT AGENCY, ESTABLISHED IN 1952 BY PLANNING COMMISSION, GOVT. OF INDIA

CENTRAL BOARD OF EXAMINATIONS

BSS NATIONAL VOCATIONAL EDUCATION MISSION

AHE025-BSS DIPLOMA IN DIALYSIS TECHNOLOGY

TWO YEARS (FIRST YEAR) EXAMINATION NOVEMBER-2025

AHE025-01 COMMUNICATIVE ENGLISH AND COMPUTER FUNDAMENTALS

TIME: 3 Hours **Marks: 100**

INSTRUCTIONS

* 43 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 - ANSWER FOR ANY 10 QUESTIONS **1 x 10 = 10**

1) Vowels are _____ in number

2) _____ Lotus is lovely flowers

3) They are playing _____ the tree.

4) When _____ you meet him.

5) _____ You will pass.

6) 'WH' type word _____

7) _____ is called father of computer

8) _____ is the most widely used sprea sheet package

9) In Windows _____ function key used to get help

10) WWW means _____

11) MS word is used for _____

12) Ctrl + S is the short cut for _____

13) _____ is the father of computer

14) He _____ studying in our Institute

15) Have mercy _____ the poor

II. DEFINE THE FOLLOWING - ANSWER FOR ANY 10 QUESTIONS **2 x 10 = 20**

1) Define the formation of Adjectives?
2) Define indefinite Article?
3) Define adjectives of number?
4) What is meant by common Gender?
5) Windows
6) Compound sentences
7) Subordinate clauses
8) Hardware
9) Del Command
10) What is the difference between Notepad and Wordpad
11) Explain any five functions in MS Excel
12) Save use
13) Chart elements
14) Clause
15) Explain any five functions in MS Excel

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

1) Define what is meant by omission of article?
2) Write any two types of job application?
3) Define kinds of participle?
4) Explain RAM and ROM
5) Title bar
6) Write details about Charles Babbage?
7) Different software and hardware
8) Checking an injured (or) ill child (or) infant

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

1) Explain briefly the job descriptions
2) Write about the conversation to two person?
3) Explain structure of computer
4) Describe the relevance of computerization in hospital field
5) Describe MS Windows

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AHE025-BSS DIPLOMA IN DIALYSIS TECHNOLOGY

TWO YEARS (FINAL YEAR) EXAMINATION NOVEMBER-2025

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

TIME: 3 Hours **Marks: 100**

INSTRUCTIONS

* 43 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 - ANSWER FOR ANY 10 QUESTIONS **1 x 10 = 10**

1) Name the functional and unit of kidney?
2) Normal reference range for serum calcium level?
3) Who first used AV fistula to conduct hemodialysis?
4) Hospital acquired infection is known as _____
5) Percepton percieved in the absence of external stimulus is known as _____
6) Normal urinary excretion of creatinine?
7) Normal reference range for serum calcium level?
8) Name the doctor who conducted the first hemodialysis treatment?
9) Which was the first dialyzer to be produced in mass?
10) Name the functional and unit of kidney?
11) What is the structural unit of kidney?
12) What is the normal serum creatinine level?
13) Name one tubular function test.
14) What is the normal serum Sodium level?
15) Define Microalbuminuria.

II. DEFINE THE FOLLOWING - ANSWER FOR ANY 10 QUESTIONS **2 x 10 = 20**

1) Write the formula to calculate renal failure index.
2) Name any two important electrolytes and the concentration in blood.
3) Illustrate the contents of dialysate using a pie diagram
4) Functions of the family
5) Rights of drug administration
6) Stages of illness
7) Layers of the heart
8) Thyroid hormones
9) Mention any two conditions which will lead to CRF?
10) Two causes for secondary hyperparathyroidism?
11) Define convection?
12) Name any two important electrolytes and the concentration in blood?
13) Name any three factors which affect diffusion?
14) List the members involved in HD care team?
15) Mention any three causes for bleeding in kidney failure patient?

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

1) Compare and contrast the normal kidney function with dialysis
2) Explain with a suitable illustration the action of positive and negative pressure in dialysis
3) Write briefly about tubular function test.
4) Write briefly about tubular function test?
5) Three causes for chronic renal failure.
6) Counter current mechanism.
7) Glomerular function tests.
8) Renal handling of sodium.

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 NOVEMBER-2025

AHE025-10 PERITONEAL & RECENT ADVANCE IN DIALYSIS - II

TIME: 3 Hours **Marks: 100**

INSTRUCTIONS

* 43 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 - ANSWER FOR ANY 10 QUESTIONS **1 x 10 = 10**

1) Mention the concentration of potassium in PD fluids.
2) Optimally PD should not be initiated until how many days after catheter placement.
3) Name the parts of peritoneum.
4) Mention one method to assess the adequacy of peritoneal dialysis
5) Mention the concentration of Mg in PD fluid.
6) Recommended Sodium intake for HD patient _____
7) Primary cause of anemia in ESRD is _____
8) What should be the Daily intake of protein for an HD patient?
9) What is dry weight?
10) Daily intake of potassium in a HD patient.
11) Components of Nephron.
12) What is the normal Serum potassium level?
13) What is the Normal GFR?
14) How litres of filtrate is handled by the kidney every day?
15) What is the normal pH of blood?

II. DEFINE THE FOLLOWING - ANSWER FOR ANY 10 QUESTIONS **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 intrapentoneal 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
11) Name any three types of fistula procedure
12) Name any three ways how will you prevent blood loss during dialysis.
13) Name any three complications of graft and explain than
14) Write briefly about urea reduction ratio
15) Button hole technique.

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 transmemberane 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 dieses 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 NOVEMBER-2025

AHE025-11 DIALYSIS - PATIENT CARE MANAGEMENT - II

TIME: 3 Hours **Marks: 100**

INSTRUCTIONS

* 43 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 - ANSWER FOR ANY 10 QUESTIONS **1 x 10 = 10**

1) What is HIPAA?
2) What is BRINE?
3) Expand the term BONENT?
4) Define reverse osmosis?
5) What are stents?
6) What is trendelenburg position
7) Name any one Vasoconstrictor
8) What is sieving co-efficient.
9) Two types of ultrafilteration system.
10) Define diffusion.
11) Define osmosis.
12) What is ultrafilteration?
13) What is deionized water?
14) Range of sodium and calcium in dialysate.
15) Give one reason for why patients cannot have an AVF.

II. DEFINE THE FOLLOWING - ANSWER FOR ANY 10 QUESTIONS **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 renalfailure?
4) Mention any two acute complications of chronic renal failure?
5) What is NHHD?
6) Mention two causes for hperkalamia
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
11) Mention three major function of kidney
12) Name any three complication of diabetes mellitus.
13) Name three signs and symptoms of uraemia
14) Write how will you manage pruritis in a CRF patient
15) Name the three options available for a kidney transplant

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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AHE025-BSS DIPLOMA IN DIALYSIS TECHNOLOGY

TWO YEARS (FIRST YEAR) EXAMINATION NOVEMBER-2025

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

TIME: 3 Hours **Marks: 100**

INSTRUCTIONS

* 43 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 - ANSWER FOR ANY 10 QUESTIONS **1 x 10 = 10**

1) A _____ rate that is significantly less than expected usually indicates an incomplete urine collection
2) CKD patients, risk factors for _____ are very similar to those associated with increased cardiovascular risk.
3) _____ is a traditional cardiovascular risk factor, and _____ is important in terms of limiting cardiovascular risk
4) _____ control also slows the rate of progression of renal disease in diabetic patients with CKD
5) _____ is common in CKD patients.
6) _____ can also develop although it is generally mild and usually with a normal anion gap until kidney function is severely impaired
7) Chronic metabolic acidosis results in _____ resorption of bone, and also has been associated with an increased rate of progression of CKD
8) The dialysate is made up of _____ and water.
9) The procedure of _____ is similar to conventional hemodialysis except it is performed three to six nights a week and between six and ten hours per session while the patient sleeps
10) The buffs used in hemodialysis is _____
11) _____ is the normal serum creatinine level
12) The most common mode of Hepatitis B transmission is _____
13) TMP is measured in _____
14) Microalbuminuria means_____
15) Name one artery which supplies kidney_____

II. DEFINE THE FOLLOWING - ANSWER FOR ANY 10 QUESTIONS **2 x 10 = 20**

1) infection
2) Concentration gradient
3) Two endocrine functions of kidney.
4) Write the formula to calcualte serum osmolality.
5) Venous supply of kidney.
6) Mention any two conditions which will lead to CRF.
7) Two causes for secondary hyperparathyroidism.
8) Define clearance.
9) What is isothionuria? Mention one condition associated with isothionuria?
10) Target serum calcium and phosphorus levels of hyperphosphatemia
11) Proteinuria
12) Heart failure
13) When is dialysis considered?
14) Reuse of dialyzers
15) Peritoneal dialysis

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

1) Factors affecting diffusion
2) Three causes for chronic renal failure.
3) List the members involved in HD care team
4) How can you help your CRF patients achieve better glycemic status.
5) Write briefly about tubular function test.
6) Precautions to be taken in dialysis unit
7) Principle of Dialysis.
8) Rhabdomyolysis

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

1) Principles of sterilization and precautions
2) Explain in detail the role of kidney and lung in regulation of acid base balance.
3) Fluid and electrolyte balance
4) Draw and explain the structure of heart and describe the pulmonary circulation
5) Explain the theories of development

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AHE025-BSS DIPLOMA IN DIALYSIS TECHNOLOGY

TWO YEARS (FIRST YEAR) EXAMINATION NOVEMBER-2025

AHE025-03 PERITONEAL & RECENT ADVANCE IN DIALYSIS - I

TIME: 3 Hours **Marks: 100**

INSTRUCTIONS

* 43 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 - ANSWER FOR ANY 10 QUESTIONS **1 x 10 = 10**

1) Two main type of dialysis _____
2) Two types of ultrafilteration system _____
3) Give one reason for why patients cannot have an AVF _____
4) What is the size of normal kidney?
5) What is the normal serum calcium level?
6) _____ the concentration of Mg in PD fluid
7) Name the parts of peritoneum_____
8) _____means ultrafiltration coefficient.
9) _____is the structural unit of kidney
10) _____ also act as mediators of glomerular injury and as modulators of the production of nephrite/ogenic antibodies, especially in pauci-immune GN
11) _____ translated to glomeruli and glomerular hypertension resulting from local changes in glomerular hemodynamics may cause glomerular injury
12) Renal blood flow is _____ but some areas are particularly sensitive to is chaemic damage
13) Dialysis should be started when_____
14) _____ is a test to see how well your dialyzer is working
15) Dialyze _____patients in a separate room using separate machines, equipment, instruments and supplies.

II. DEFINE THE FOLLOWING - ANSWER FOR ANY 10 QUESTIONS **2 x 10 = 20**

1) Nephrone
2) Dialysis
3) Steal syndrome?
4) First use syndrome?
5) What are the types of urea clearance and give the reference range for both.
6) Mention any two causes for metabolic alkalosis.
7) Vitamin requirements for HD patients.
8) How can you help your patient achieve better Nutritional status?
9) Stages of CKD.
10) Renal fibrogenesis
11) Common drug causes of acute interstitial nephritis
12) Acidosis
13) Rhabdomyolysis
14) What is reuse of a hemodialyzer?
15) Risk of Infections for Vein Access Types

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

1) How will you measure dialyzer effectiveness?
2) Quality of RO water?
3) how to control Dialysis
4) Write about urea kinetic modeling and pre and post dialysis BUN measurement
5) Calculation of transmemberane pressure.
6) Explain briefly about peritoneal equilibration test.
7) Dietary advice to CAPD patient.
8) Anticoagulation in Hemodialysis.

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

1) Write Detail Principle of the Peritoneal Dialysis.
2) Write Post-Operative Care of the kidney Transplantation
3) Describe detail of the Dialzet.
4) Components and functions of water treatment system?
5) Identify causes, signs and symptoms and presentation of clinical and technical complications that may occur during dialysis.

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AHE025-BSS DIPLOMA IN DIALYSIS TECHNOLOGY

TWO YEARS (FIRST YEAR) EXAMINATION NOVEMBER-2025

AHE025-04 DIALYSIS-PATIENT CARE MANAGEMENT -I

TIME: 3 Hours **Marks: 100**

INSTRUCTIONS

* 43 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 - ANSWER FOR ANY 10 QUESTIONS **1 x 10 = 10**

1) How litres of filtrate is handled by the kidney every day? _____

2) What is the normal pH of blood? _____

3) What is short daily HHD?

4) Mention any two symptoms of High BUN?

5) What is HIPAA?

6) What is BRINE?

7) Expand the term BONENT?

8) Define reverse osmosis?

9) What are stents?

10) What is trendelenburg position

11) Name any one Vasoconstrictor.

12) What is sieving co-efficient

13) The most common type of native AVF links _____ and _____

14) Two main type of dialysis.

15) Chemical composition of a dialysate.

II. DEFINE THE FOLLOWING - ANSWER FOR ANY 10 QUESTIONS **2 x 10 = 20**

1) How can you help your patient achieve better Nutritional status?
2) Name two functions of kidney which cannot be restored by Dialysis?
3) What are the facts about potassium that an HD patient need to know?
4) Give any two nutritional suggestions to patient to maintain phosphorous level?
5) Give any two useful self management tips for a patient on HD?
6) Hepatitis B vaccination schedule for a CRF patient?
7) What are the treatment options for CRF?
8) Mention any two causes for post renal causes of renalfailure?
9) What is NHHD?
10) Factors affecting diffusion.
11) Two indications where catheters are used for vascular access.
12) How will you assess the maturity of a fistula?
13) Formula to calculate Transmembarne pressure.
14) Complication of CAPD.
15) Complications of AV fistula.

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) Which is Care of before Dialysis?
3) Which are vascular assess give detail Information?
4) Name three signs and symptoms of uraemia
5) Name the three options available for a kidney transplant.
6) How will you measure dialyzer effectiveness?
7) Write briefly about dialyzer reprocessing procedure.
8) Care of central venous catheter.

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

1) Guidelines for preventing infections during hemodialysis?
2) Anticoagulation in Hemodialysis?
3) Explain in detail about nutritional management of a dialysis patients.
4) Explain the detail the various clinical and social aspects involved in the self management of patient who undergo dialysis.
5) Describe the predialysis setup of a hemodialysis machine and extracorporeal circuit.