



**GOVERNMENT OF KERALA
DIRECTORATE OF MEDICAL EDUCATION
CENTRAL STERILE SERVICE TECHNOLOGY (DCSST) COURSE
REGULAR & SUPPLEMENTARY EXAMINATIONS APRIL 2024**

DCSST-F-I-APR-2024

Time 2 hrs

Part 1 paper 1

Max 50Marks

(Answer Section A , B & C separately and draw diagrams wherever necessary)

BASIC ANATOMY, PHYSIOLOGY AND PATHOLOGY

SECTION A – ANATOMY

- I. Short Essay
a. Describe the anatomy of the brain in detail (1x5=5)

- II. Write Short Notes on (5x2=10)
a. Right atrium
b. Testis
c. Lungs
d. Neuron
e. Microscopic structure of hyaline cartilage

- III. Fill up (5x1=5)
a. is the organ which secretes insulin
b. is an example of a large vein
c. Inner lining of the uterus is called

- d. is the tube taking air from larynx to the lungs
e. Skin is lined by epithelium

P.T.O

SECTION B – PHYSIOLOGY

- I. Short Essay (1+1+3=5)
a. What is the normal RBC count? List 2 functions of RBC. Write a note on Anemia.
- II. Short Notes (5x2=10)
a. Functions of Saliva
b. Hypoxia
c. Differences between pulmonary and systemic circulation
d. Functions of Insulin
e. Steps of urine formation
- III. Fill in the blanks (5x1=5)
a. Two hormones secreted by pancreas
b. Normal cardiac output
c. Nerves involved in micturition
d. Receptor for hearing
e. Important ovarian hormones

SECTION C - PATHOLOGY

- I. Write short notes on (5x2=10)
a. Briefly explain cellular events in inflammation.
b. What are the pathways of spread of tumour
c. What is a granuloma? Give an example. What is the type of inflammation?
d. What are the advantages of dipstick method of urine examination?
e. Mention any 4 causes of edema.

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DCSST-F-II-APRIL-2024**

Time 2 hrs

Part 1 paper 1I

Max :50 Marks

(draw diagrams wherever necessary)

BASIC MICROBIOLOGY

- I. Essay: (2+2+3+3=10)
- a. Describe the structure of Hepatitis B virus. What are the different modes of transmission of HBV? Describe the laboratory diagnosis of HBV. Write prophylaxis of Hepatitis B Virus.
- II. Short answer questions: (5x5=25)
- a. Bacterial growth curve
- b. Infections and Complications caused by *Streptococcus pyogenes*
- c. Describe Pathogenesis, Clinical features, laboratory diagnosis and prophylaxis of *Clostridium tetani*.
- d. Write down the steps to manage needle stick injury.
- e. Prions
- III. Write Short notes on : (5x2=10)
- a. Passive immunity
- b. Normal microbial flora
- c. Exotoxins
- d. Name four bacteria causing UTI. What is Kass Criteria
- e. Candidiasis
- IV. Name the following (5x1=5)
- a. Four fungi causing opportunistic mycosis
- b. Name one staining method and selective media for *Mycobacterium tuberculosis*
- c. Name two DNA viruses
- d. Staining method to demonstrate bacterial capsule
- e. Name two protozoan parasites



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DCSST-F-III-APR- 2024

Time 2 hrs

Part 1 paper III

Max :50 Marks

(draw diagrams wherever necessary)

STERILIZATION AND DISINFECTION

- I.** Essay (1+2+4+3=10)
- a. Define Disinfection? Discuss characteristics of an ideal disinfectant? Classify disinfectants based on spectrum of action with example. Discuss methods of testing disinfectants.
- II.** Short answer questions: (5x5=25)
- a. Plasma Sterilization.
b. Sterilization controls in autoclave
c. Use, advantages and disadvantages of glutaraldehyde
d. Describe in detail cleaning and sterilization of Endoscopes
e. Bacterial filters
- III.** Write Short notes on : (5x2=10)
- a. Inspissation
b. Flash sterilization
c. Enzymatic detergents
d. Ultrasonic cleaning
e. Difference between dry heat and moist heat sterilization
- IV.** Name the following (5x1=5)
- a. Three most important endoscopy transmitted infections
b. Name the four steps of processing of equipment
c. Name two agents used for fumigating operation theatres
d. Name two sporicidal disinfectants
e. Name two commonly used antiseptics

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DCSST-F-IV-APR-2024

Time 2 hrs

Part 1 paper 1V

Max :50 Marks

(Answer Section A , B, C & D separately and draw diagrams wherever necessary)

**ENGINEERING ASPECT, INVENTORY MANAGEMENT, CSSD ADMINISTRATION,
COMPUTER FUNDAMENTALS**

SECTION -A

- I. Write Short Notes
- a. Control of -----, -----, -----, and is defined as Air Conditioning. (4)
 - b. What is HEPA filter? (1)
 - c. is the unit of Heat in SI System (1)
 - d. Name any three functional areas in layout of CSSD? (3)
 - e. Name an example of dry heat sterilisation (1)

SECTION –B

- I. Write short notes on (5x2=10)
- a. Explain about Exchange Cart System
 - b. Benefits of CSSD planner
 - c. Define lead time
 - d. Steps in material management
 - e. VED classification of inventory control
- II. Fill up (5x1=5)
- a. is the pre determined limit, beyond which stock of an item should not be allowed to exceed in the normal course.
 - b. Costs of ordering and receiving inventory is
 - c. is detailed list of all articles on the ward, their specifications and standard number or quantity
 - d. Expand HML classification in inventory control
 - e. Expand EOQ Model

SECTION C

- I. Write short notes on (5x2=10)
- a. Explain the work flow of CSSD
 - b. Safety and maintenance of CSSD unit
 - c. What are the duties and responsibilities of CSSD technicians
 - d. What are the inspection guidelines for pack preparation
 - e. Explain FAN principle
- II. Fill in the blanks (5x1=5)
- a. is an infection that develops in a patient after third day of hospital admission.
 - b. is the first and immediate assistance given to any person suffering from injury.
 - c. area is where soiled equipments are received from user department.
 - d. is the full form of IFU
 - e. is a list of specific supplies, utensils and instruments for a specific procedure.

SECTION – D

- I. Answer all the questions (5x2=10)
- a. Explain the basic components of CPU
 - b. Different types of Printers
 - c. Full form of RAM and ROM
 - d. What is operating system
 - e. Explain Electronic Medical Record system

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DCSST-S-I-APR-2024

Time 2 hrs

Part II paper 1

Max 50Marks

(Draw diagrams wherever necessary)

PROCESSING OF MEDICAL DEVICES

- I. Essay (2+4+4=10)
What is an endoscope? List down the classification of endoscope? Explain endoscope daily use cycle with diagram?
- II. Short Answers (5x5=25)
- a. Difference between point of use processing and IUSS
 - b. Role of CS technician in record keeping
 - c. Explain the types of mechanical cleaners
 - d. Difference between the cleaning and decontamination
 - e. Explain the methods of marking an instruments
- III. Short Notes (5x2=10)
- a. Powered surgical instruments
 - b. Causes of wet pack after sterilization
 - c. Personal protective equipment
 - d. Manual disinfection
 - e. Decontamination
- IV. Fill up (5x1=5)
- a. Is the part of surgical instruments that locks the handles in place
 - b. Expand SUDs
 - c. Is the pH of acid detergents
 - d. are ingredients used to bind together substances that normally do not combine such as soil and water
 - e. Expand AER

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DCSST-S-II-APR-2024

Time 2 hrs

Part II paper II

Max :50 Marks

(draw diagrams wherever necessary)

HEALTH CARE ASSOCIATED INFECTION & INFECTION CONTROL PROCEDURES

- I. Essay: (2+3+5=10)
Definition of Hospital acquired infection. What are the types of HAI? Discuss in detail the components of standard precaution.
- II. Short answers (5x5=25)
a. Role of CSSD in infection control
b. Spill management of blood and body fluids
c. Reprocessing of endoscopes
d. Transmission based precautions
e. Infection control in dialysis
- III. Write Short notes on : (5x2=10)
a. Epidemiological triad of HAI
b. Pre exposure prophylaxis of hepatitis B
c. 5 moments of hand hygiene
d. MRSA
e. Donning
- IV. One word questions (5x1=5)
a. Disinfectant used for cleaning patient care area is
- b. Most commonly used method for treating biomedical waste is
- c. Time required for Hand hygiene using alcohol based hand rub is
- d. Sharps and needles are disposed in
- e. Ideal time to start post exposure prophylaxis of HIV is within

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Time 2 hrs

Part II paper III

Max :50 Marks

(draw diagrams wherever necessary)

QUALITY ASSURANCE IN CSSD PROCESS

- I.** Essay (2+4+4=10)
What is quality assurance? Explain the importance of quality assurance in central service department? Describe the role of CS technician in maintaining the quality assurance?
- II.** Short answer questions: (5x5=25)
a. Components of quality assurance
b. Explain the quality control indicators
c. Write the importance of documentation in quality assurance
d. Different methods of disinfection testing
e. Explain the methods to maintain quality in CS processing areas.
- III.** Write Short notes on : (5x2=10)
a. Minimum effective concentration testing
b. Quality control
c. Disinfection
d. Six sigma
e. Principles of quality management
- IV.** Fill Up (5x1=5)
a. is a documented program that provides high degree of assurance that product has met pre determined acceptance criteria.
b. 4R's of monitoring products are,....., and
c. ISO is
d. is a quality process that focuses on eliminating waste in the production of products
e. The physician, nurses and other personnel served by central service are customers

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Time 2 hrs

Part II paper 1V

Max :50 Marks

(draw diagrams wherever necessary)

PACKAGING, STORAGE & SUPPLY

I. ESSAY

What is wrapping technique? Explain different wrapping techniques. What are the general guide lines of wrapping a sterile pack. (2+4+4=10)

II. Short Answers (5x5=25)

- a. Principles of packaging
- b. Rigid containing systems
- c. Methods of handling OT linen
- d. Explain reusable packing materials
- e. The guidelines for preparation of pack content

III. Short Notes (5x2=10)

- a. Muslin wrap
- b. Wet packs
- c. Tamper evident seals
- d. Assembly areas
- e. Chemical indicators

IV. Fill Up (5x1=5)

- a. Temperature of assembling area should be maintained between&
- b. Package is considered sterile until a specific expiration called
- c. is applied over the packages after sterilization to protect from damage
- d. The maximum humidity level for sterile storage is
- e. Scissors with Tungsten carbide cutting edges are usually identified by
