



GOVERNMENT OF JAMMU AND KASHMIR,  
J&K SERVICES SELECTION BOARD,  
Zam Zam Hotel, Rambagh, Srinagar  
(www.jkssb.nic.in)

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Sub: - Addendum to Notice issued vide No. SSB/Secy/Sel/2017/10665-67  
Dated: 12.10.2017 for Written Test to be held in November, 2017

It is hereby notified that the Posts of Jr. ECG Technician/ Anesthesia Assistant advertised vide notification No. 05 of 2015 under Item no. 261 and 262 of Health and Medical Education Department shall be included in the calendar issued for Written Test to be held in November, 2017 vide No. SSB/Secy/Sel/2017/10665-67 Dated: 12.10.2017. The syllabus is enclosed below as Annexure "A" and Annexure "W".

**Sd/-**  
**(Tassaduq Hussain Mir) KAS**  
**Secretary**  
**J&K Services Selection Board**

**No. SSB/ Secy/Sel/ /2017/11131-33**

**Dated: 25.10.2017**

**Copy to the: -**

1. Private Secretary to Chairman, J&K Services Selection Board for information of the Ld. Chairman.
2. I/C Website
3. Stock File

**ANNEXURE “A”  
Syllabus**

**Jr. Anesthesia Assistant / Anesthesia Assistant**

**Max. Marks: 150  
Time: 2:30 hrs**

**1. GENERAL PRINCIPLES OF ANESTHESIA (10 MARKS)**

- a) PRE-MEDICATION;
- b) INDUCTION;
- c) MAINTENANCE.
- d) RECOVERY & POST-OPERATIVE.

**2. ANESTHESIA MACHINE / WORK-STATION: - (10 MARKS)**

- a) BASICS;
- b) CHECK-LIST;
- c) MAINTENANCE.

**3. ANESTHESIA BREATHING CIRCUITS & SODA-LIME: - (05 MARKS)**

- a) IDENTIFICATION;
- b) ASSEMBLY;
- c) CONNECTIONS;
- d) CLEANING & DIS-INFECTION;
- e) CHECKS.

**4. MEDICAL GASES – CYLINDERS & PIPE-LINE: - (05 MARKS )**

- a) CHECKS;
- b) MAINTENANCE.

**5. ANESTHESIA EQUIPMENT TROLLEY INCLUDING DIFFICULT  
AIRWAY CART:-**

(10 MARKS )

- a) IDENTIFICATION;
- b) USAGE;
- c) MAINTENANCE;
- d) DISINFECTION & STERILIZATION.

( LARYNGOSCOPES & THEIR BLADES, ENDOTRACHEAL TUBES {PVC & REDRUBBER}  
, AIRWAYS, LARYNGEAL MASK AIRWAYS, BOUGIE'S , MAGILL'S  
FORCEPS, FACEMASKS { HUDSON'S, ANATOMICAL, VENTURI ETC.},  
STYLETS,  
RYLE'S TUBE).

**6. CARE OF EQUIPMENT:- (05 MARKS )**

- a) CLEANING;
- b) STERILIZATION & DIS-INFECTION;

**7. DISPOSAL OF WASTE; INFECTION PREVENTION & CONTROL METHODS**

(05 MARKS)

**8. THEATRE DISCIPLINE. (05 MARKS)**

**9. MONITORS IN ANESTHESIA:- (10 MARKS)**

- a) E.C.G – BASICS, LEADS & ELECTRODES;
- b) BLOOD-PRESSURE MONITORING (INVASIVE & NON-INVASIVE);
- c) PULSE OXIMETER;
- d) EtCO<sub>2</sub>;
- e) CENTRAL VENOUR PRESSURE MONITORING;

**10. BASIC KNOWLEDGE, CARE & HANDLING OF VENTILATORS & ITS ACCESSORIES.**

(05 MARKS)

**11. SUCTION EQUIPMENT & CATHETERS:- (05 MARKS)**

- a) BASICS;
- b) MAINTENANCE;
- c) DIS-INFECTION.

**01. DRUGS:-** USED FOR INDUCTION OF ANESTHESIA, MAINTENANCE OF ANESTHESIA, RECOVERY FROM ANESTHESIA, MAINTENANCE OF BLOODPRESSURE

(INOTROPES & HYPOTENSIVE AGENTS ), MAINTENANCE OF CARDIAC FUNCTION; ANTI-EMETICS, ANALGESICS ( PARACETAMOL, NSAIDS, OPIOIDS ETC.),

BRONCHODIALATORS, DIURETICS, UTEROTONICS, ANTIBIOTICS, STEROIDS, LOCAL

ANESTHETICS, MUSCLE RELAXANTS );

(10 MARKS)

- a) BASICS;
- b) USES;
- c) DOSAGE;
- d) ADVERSE- EFFECTS;
- e) CONTRA-INDICATIONS;
- f) DILUTION;
- g) STORAGE;
- h) PRECAUTIONS;
- i) MAINTENANCE.

**02. FLUIDS & TRANSFUSION:- (10 MARKS)**

- a) I.V CANNULAS;
- b) TRANSFUSION SETS;
- c) FLUIDS ( R L , N S , D N S , D 5% , D 10% , D 25% , HYPERTONIC SALINE , COLLOIDS;
- d) BLOOD AND ITS PRODUCTS;
- e) TEMPERATURE MAINTENANCE OF TRANSFUSION FLUIDS;

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**03. RECORD MAINTENANCE (PATIENTS, EQUIPMENTS & DRUGS- ESPECIALLY CONTROLLED DRUGS); (05 MARKS )**

**04. BASIC LIFE SUPPORT / CARDIO-PULMONARY RESUSCITATION, ANAPHYLACTIC REACTIONS; (10 MARKS)**

**05. REFRIGERATION & MAINTENANCE OF COLD CHAIN; (05 MARKS)**

**06. THEATRE POLLUTION, FIRE & ELECTRICAL HAZARDS IN OPERATION THEATRES AND WAYS TO MINIMISE THEM; (05 MARKS)**

**07. PREPARATION FOR REGIONAL ANESTHESIA AND EQUIPMENT REQUIRED;**

(05 MARKS)

**08. PATIENT POSITIONING; (05 MARKS)**

**09. BASIC ANATOMY OF :- (10 MARKS)**

- a) AIRWAY;
- b) TRACHEO-BRONCHIAL TREE;
- c) HEART WITH GREAT VESSELS;
- d) PERIPHERAL VESSELS;
- e) GENITO-URINARY SYSTEM;
- f) CENTRAL NERVOUS SYSTEM;

**10. BASIC PHYSIOLOGY OF:- (05 MARKS)**

- a) BREATHING / RESPIRATORY CYCLE, VOLUMES & CAPACITIES, HYPOXIA, HYPERCARDIA;
- b) CARDIAC CYCLE, CARDIAC OUTPUT, STROKE VOLUME, VARIATIONS OF HEART RATE & RHYTHM, NORMAL BLOOD PRESSURE;
- c) AUTONOMIC NERVOUS SYSTEM;
- d) NORMAL URINE OUTPUT, NORMAL CONSTITUENTS OF URINE, NORMAL RENAL FUNCTION PARAMETERS;

**11. BASICS OF PHARMACOLOGY:- (05 MARKS)**

- a) PHARMACO-KINETICS;
- b) PHARMACO-DYNAMICS;
- c) ROUTES OF DRUG ADMINISTRATION;
- d) DRUG HALF- LIFE;
- e) DURATION OF ACTION;
- f) METABOLISM & EXCRETION;
- g) ADVERSE DRUG REACTIONS.

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# **Annexure “W”**

## Syllabus

### Jr. ECG TECHNCIAN

**Marks:-150**

**Time: - 2.30**

#### **Hours**

#### **First Aid and Emergency Health Services**

**10 Marks**

- Outline of the First-Aid
- Structure and functions of the body
- Dressing and Bandages (use of Triangular Bandages and Cotton Roller Bandage, Rubber Bandage and Different types of Dressing).
- Cardio-pulmonary Resuscitation. Wounds.
- Haeomorrhage
- Shock
- Electric Stock
- Different methods of artificial respiration.
- Asphyxia.
- Fractures and Dislocation.
- Unconsciousness and Fainting
- Epilepsy and Hysteria.
- Poisons including food poisoning.
- Common Conditions:
  - Foreign body in ear, eye and nose
  - Cramps
  - Frost-Bite
  - Bites and Stings etc.
  - Epistaxis
  - Snake Bite
  - Dog Bite
- Transport of injured persons
- Use of common medicines

#### **STERILIZATION/DISINFECTION**

**10 Marks**

Physical, Chemical and Mechanical Methods etc. Disposal of contaminated Media, sterilization of syringes, glass wares, apparatus etc. Biomedical waste management.

#### **SURGICAL INSTRUMENTS, THEIR NAMES & USES, PREPARATION OF PATIENT FOR OPERATION, PRE & POST OPERATIVE PATIENT CARE**

## **SURGICAL INSTRUMENTS (Their Names & Uses) (Their Preparation & Uses)**

### **SURGICAL INSTRUMENTS:**

**05 Marks**

- Instruments for general surgery
- Operation of the face and neck
- Operations of the Nose, Throat and Ear
- Ophthalmic Surgery
- Operations on the Chest
- Operations on the Genito-Urinary Tract
- Gynecological and Obstetric
- Operations Orthopaedic Operations
- Neuro-Surgical Operations
- Operations on the Vascular System
- Trauma Surgery

### **PREPARATION OF INSTRUMENTS TRAY: 05 Marks**

- Major procedures tray
- Basic/Minor procedures tray
- Limited procedures tray
- Thyroid tray
- Long instruments tray
- Biliary Tract Procedures tray
- Choledochoscopy tray
- Basic rigid Sigmoidoscopy tray
- Gastrointestinal procedures tray
- Rectal procedures tray

## **GYNECOLOGIC AND OBSTETRIC TRAYS:**

**05 Marks**

- Dilatation of the Cervix and Curettage of the Uterus (D&C) tray.
- Cervical Cone tray
- Laparoscopy tray
- Abdominal Hystrectomy tray
- Caesarian section tray
- Vaginal Hysterectomy tray

## **GENITOURINARY TRAYS:**

**05 Marks**

- Vasectomy tray
- Open Prostatectomy tray
- Kidney tray

## **THORACIC TRAYS**

**02 Marks**

- Mediastinoscopy tray
- Thoractomy tray
- Pcemaker tray

## **CARDIOVASCULAR TRAYS:**

**02 Marks**

- Vascular procedures tray
- Vascular Shunt tray
- Cardiac Procedures tray

## **ORTHOPAEDIC TRAYS: 05 Marks**

- Basic Orthopaedic procedures tray



- Minor Orthopaedic procedures tray
- Hip replacement tray
- Knee or Ankle Arthroscopy tray

## **NEUROLOGIC PROCEDURES TRAY**

**02 Marks**

- Craniotomy tray
- Laminectomy tray

## **OTORHINOLARNGOLOGIC (ENT TRAYS): 02 Marks**

- Basic Ear procedures tray
- Nasal Procedures tray
- Myringotomy tray
- Tonsillectomy and Adenoidectomy tray
- Tracheostomy tray
- Antral Puncture tray

## **OPHTHALMIC TRAYS: 05 Marks**

- Basic Eye procedures tray
- Eyelid and Conjunctival procedures tray
- Basic Eye Muscle procedures tray
- Dacryocystorhinostomy tray
- Corneal Procedures tray
- Cataract Extraction and Lens procedures tray
- Glaucoma procedure tray
- Basic Eye procedures Microscope tray
- Retinal procedures tray

## **PEDIATRIC TRAYS: 05 Marks**

- Pediatric major procedures trays
- Pediatric minor procedures trays
- Pediatric Gastrointestinal procedures trays

**PREPARATION OF PATIENT FOR OPERATION, PRE &  
POST  
OPERATIVE PATIENT CARE**

**15 Marks**

**PRE-OPERATIVE CONSIDERATIONS:**

- Psychological support of the surgical patient.

**05 Marks**

**PROTECTION OF THE PATIENT IN SURGERY:**

**08 Marks**

- Admission Procedure
- Transfer Procedure Position
- Environmental Controls
- Electro Surgery
- Operative Records
- Counting Procedure
- Sterilization
- Emergencies and Disasters

**SAFETY FOR MEDICAL ASSISTANT, PHARMACIST IN A OPERATION**

**THEATRE:**

**04 Marks**

- In service education
- Body Mechanic
- Fatigue factors
- Radiation Safety
- Infection control
- Chemical hazards.

## Course Content

Unit-I Introduction to terms used

Marks 25

Unit-II Organization of body

- Cell: Types, Structures and Functions
- Tissues: Types, Structures and Functions
- Glands: Types & Functions
- Membranes: Types & Functions
- Organs & Systems

Unit: - III Skeletal systems

- Bones: types, structure, functions
  - Axial Skeleton
  - Appendicular skeleton
- Joints:- Definition structure and functions

Unit-IV Muscular system

- Position and action of chief muscles of the body.

Unit-V Cardio-Vascular Systems

- Heart: Position, Structure differences, name and position of chief blood and lymph vessel and function
- Circulation of Blood: systemic pulmonary and portal circulation  
coronary circulation
- Cardio-Vascular System
- Heart: position, structure, conduction system, functions and cardiac cycle.
- Blood vessel:- types, Structural differences, name and position of chief blood and lymph vessel and functions
- Circulation of Blood: Systemic Pulmonary and portal circulation  
coronary circulation

- Blood composition and functions, blood groups and RH factor Blood Pressure and Pulse

#### Unit-VI Lymphatic system

Lymph vessels, glands ducts and lymph circulation, lymph tissues in the body , Spleen and reticulo-endothelial system

#### Unit-VII Respiratory system

- Structure and functions of respiratory organs
- Physiology of respiration Characteristics of normal respiration and its deviations

#### Unit-VII Digestive system

Structure and function of organs of digestion

#### Unit-VII Process of digestion and absorption

Metabolism: meaning and metabolism of food constituents.

#### Unit-IX Excretory Systems

Organs of Excretion such as -Lungs colon, Kidney and skin

Structure and function o organs of urinary systems

Structure and functions of the Skin

Fluid and electrolyte balance

#### Unit-IX Nervous system

- Types, structure and functions of neuron.
- Central Nervous system; Structure and functions
- Autonomic Nervous system: Structure and functions

#### Unit-X Endocrine system

Structure and functions of pituitary, pancreas, thyroids-parathyroid, thymus and supra renal glands

#### Unit-XII Sense Organs

Structure and function of eyes, ear, nose and tongue  
Physiology of vision, hearing and equilibrium

#### Unit-XIII Reproductive system

- Structure and functions of female reproductive and accessory organs Process of reproduction, menarche, menstrual cycle and menopause
- Reproductive health
- Structure and function of male reproductive organs.

#### Applied physics and chemistry

##### Unit-I Unit and Measurement

- Introduction
- Units of length
- Unit of Mass
- Unit of Equivalent
- Principles of Physics

##### Unit-II Matter

- States of matter
- General properties of solids
- General properties of liquids
- Practical Application

##### Unit-III Mechanics

- Centre of Gravity
- Archimedes principle
- Traction
- Friction
- Levers and pulleys

##### Unit-IV Pressure

- Introduction
  - Concept of pressure
  - Hydrostatic pressure
- Atmospheric pressure
- Barometer

- Siphon
- Effects of changes in atmospheric
- Pressure on Human Body
- Practical Application

#### Unit-V Heat

- Production of Heat
- Measurement of Temperature
- Clinical Thermometer
- Transmission of
- Heat Application of
- Heat Sterilization

#### Unit-VI Ionizing and Radiation

- Radioactivity
- Radioisotopes
- Clinical Uses of Radioisotopes and
- Radio Elements
- Radiation Hazards

### Chemistry

Unit I Oxygen

Unit II Water

Unit III Solutions

Unit VI Ionization

Unit VI Acids and Bases

Unit VI Salt

Unit VII Metals and Non -Metals

### Nutrition

Marks 10

Unit Introduction

- Changing concepts-foods habits and customs
- Relationship of nutrition to health

Unit II Food

- Constituents
  - Normal Requirements Sources
  - Deficiencies
- Balance Diet      Unit III      Normal dietary requirements and deficiency diseases of each of the constituents of food
- Factors affecting selection and planning of meals
  - Method of calculating normal food requirements
  - Low cost menu

## Unit VI      Community Nutrition

Marks 20

- Concept of community nutrition
- Nutritional needs for special groups i.e., infants, children, pregnant women, lactation mothers, old people etc.
- Nutrition education: needs and methods
- Substitute for non-vegetarian food
- Methods of improving an ill-balanced diet
- Community nutrition programme
- Food hygiene and law related to food.
- Sterilization/Disinfection/Bio-Medical Waste/ sepsis, Asepsis
- Natural, Physical, Chemical and Mechanical method etc
- Community Health

## Public Health and Hygiene

- Modern concept of public health
- Comprehensive Health care
- Five year plans, priorities allocation of medical and health services
- Health and family planning organizations set up at the nation the state, the District and Block levels
- Functions of primary Health Centre , CHC Distt. Hospital and Sub centers.

## Unit-II Epidemiological Methods Approaches and investigations

## Unit-III Health Education

- Health Education(Information, Education and Communication)
- Principles Ethics, Attributes of Health Educator
- Various Methods of Health Education

## Unit-IV National Health Programme

- National Malarial Eradication programme
- National leprosy Eradication programme
- National tuberculosis control programme
- National Aids control programme
- National programme for control of Blindness
- National iodine Deficiency Disorders programme
- National Universal Immunization Programme
- National Family Welfare programme
- National Guinea-Worm Eradication programme
- National Cancer Control Programme
- National filarial Control Programme
- National Water Supply and Sanitation Programme

## Unit V Records Keeping and vital statistics

## Unit -VI Minor Ailments

- Classification,, early detection and management
- Standing instructions/orders

## Unit -VI Environmental Hygiene

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