

# PUBLIC SERVICE COMMISSION, WEST BENGAL

161-A, S. P. Mukherjee Road, Kolkata-700026

## **Scheme & Syllabus for Preliminary Screening Test for recruitment to the post of Dialysis Technician Grade-III in the Directorate of E.S.I. (M.B.) Scheme under the Labour Department, Govt. of W.B. ( Advt. No. 15/2019)**

### **Scheme:**

Preliminary Screening Test will be objective type (MCQ) in 4 different series, viz., A, B, C & D.

- Number of questions: 100, each carrying 1 mark.
- Full marks: 100
- Duration: 1 hour 30 minutes.

**N.B.:** There will be negative marking for wrong answers as per norms.

### **Syllabus:**

#### **Anatomy & Physiology**

(normal kidney structure and functions)

#### **Derangement of kidney functions**

(aetiology, clinical manifestation, diagnosis of acute and chronic renal failure)

#### **Dialysis - the concept**

(Brief history, definition, mechanism)

#### **Components of Dialysis**

(Access, blood flow, anticoagulant, dialysate)

#### **Hemodialysis – Basics**

(Blood circuit: tubing, pump, dialyzer, flow rate, dialysate circuit, concentrates,

Delivery systems, flow rate)

#### **Anticoagulation**

(Heparin, alternatives to Heparin, regional no anticoagulation)

#### **Vascular access**

(Temporary, Permanent)

#### **Dialysis water and water treatment**

Standard and quality requirements, AAMI Standard

#### **Dialysis and Dialyzer**

(including reuse), Serological safety, Safety measures during reprocessing , Dialyzer reprocessing machine

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## **Hemodialysis machine**

Basic Instrumentation

### **Monitors and Alarms**

- Limit violation of conductivity
- Blood Leak
- Air Leak
- Transmembrane Pressure
- management of alarming clinical situations

### **Complications of Hemodialysis**

- Access related complication
- Dialyzer related complication
- Dialysate related complication
- Anticoagulant related complication
- Machine/Blood Pump associated complication
- Special type of complication
- Management of complications
- Maintenance of hygiene in Dialysis unit
- Access – core
- Anticoagulation

### **Doses of Hemodialysis**

- Duration, index, clearance
- Middle molecules, Urea reduction ratio
- Urea kinetic modeling, Dialysis adequacy

### **Continuous Dialysis**

- Continuous arteriovenous hemofiltration
- Continuous venovenous hemofiltration
- Continuous hemodiafiltration
- Continuous slow hemodialysis
- Component, access, tubing, filter, replacement, fluid Anticoagulation, flow rate.

### **Peritoneal Dialysis**

- History, Peritoneal physiology, kinetics technique, catheter, dialysate fluid, insertion procedure, drainage, complication. Continuous peritoneal dialysis procedure, dose.

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