

# **RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER**

## **SYLLABUS OF COMPETITIVE EXAMINATION FOR THE POST OF ASSISTANT PROFESSOR (Super Speciality) MEDICAL GASTROENTEROLOGY MEDICAL EDUCATION DEPARTMENT**

### **1 Basic Sciences**

- Immune system of GIT and its importance in various GI disorders.
- Molecular biology in relation to GI tract /liver with reference to Gene editing tools.
- GI tumor and tumor biology.
- GI hormones in health and diseases.
- Stem Cells and renewal.

### **2 Esophagus**

- Motility disorders of esophagus.
- Approach to a patient with dysphagia.
- GERD & its management.
- Tumors of the esophagus with special reference to endoscopic management.
- Infectious diseases of the esophagus.
- Management of foreign bodies in esophagus.

### **3 Stomach**

- Basic Physiology.
- Pathogenesis of acid peptic disorder.
- Helicobacter pylori infection in health & diseases.
- Modern management of acid peptic disorders and its complications.
- Tumors of stomach.

### **4 Small Intestine**

- Intestinal electrolyte absorption and secretion.
- Normal absorption of nutrient.
- Malabsorption syndromes.
- Infective diarrhoea.
- Chronic diarrhoea – approach to diagnosis and management with especial reference to HIV.
- Short gut syndrome/ small intestinal transplantation.
- Auto immune disorders of small gut – Celiac diseases.

- Intestinal pseudo-obstruction/ bacterial overgrowth.
- Tumors of Small Intestines with special reference to GIST, Lymphomas.
- Approach to a patient with obscure GI bleed.

## 5 **Colon**

- Anatomy, Basic physiology of electrolyte and Water absorption.
- Congenital anomalies.
- Motility disorders – Constipation, pseudo-obstruction, IBS.
- Antibiotic associated diarrhoea.
- Inflammatory bowel disease – Immuno pathogenesis and management with reference to immunomodulator therapy.
- Diverticular disease of colon.
- Colonic polyps and polyposis syndrome.
- Colorectal tumor.

## 6 **Pancreas**

- Physiology of pancreatic secretion & Pancreatic function tests.
- Acute necrotising pancreatitis – pathogenesis and management with reference to multidisciplinary step-up approach & endoscopic therapy of Walled of Necrosis (WON).
- Chronic Calcific pancreatitis with special reference to Tropical pancreatitis-pathogenesis and management.
- Pancreatic Endotherapy.
- Hereditary pancreatitis.
- Autoimmune pancreatitis.
- Cystic lesions of Pancreas.
- Neuroendocrine tumors of pancreas.
- Pancreatic malignancy.

## 7 **Liver**

- Segmental anatomy.
- Liver function tests with reference to Non-invasive assessment of liver fibrosis/ cirrhosis.
- Portal hypertension with reference to non cirrhotic portal fibrosis and extra hepatic portal venous obstruction.
- Cirrhosis of liver – complications & management with reference to HRS, ACLF, VARICEAL BLEED.
- Chronic hepatitis B management with reference to newer drugs & immunotherapy.
- Chronic hepatitis C management with reference to eradication with Direct Acting Agent (DAA).

- Metabolic liver disease with reference of Wilson's disease.
- Drug induced liver injury.
- Alcoholic liver disease.
- NAFLD pathogenesis & management with newer drugs.
- Acute liver failure/ACLF.
- Auto immune Hepatitis.
- Hepatic venous out flow tract obstructions.
- Infections of Liver – with special reference to Amoebic Infection, Hydatid disease.
- Liver in Pregnancy.
- Liver transplantation and Bio-Artificial liver.
- Hepatocellular carcinoma: pathogenesis & management with reference to Immunotherapy.

## 8 **Biliary Tract**

- Physiology of bile formation and secretion/cholestasis.
- Bilirubin metabolism.
- Approach to a patient with Jaundice.
- Gall Stones – Pathogenesis and Management with endoscopic management of Large CBD stone.
- Biliary Stricture – approach to management of indeterminate stricture.
- IgG 4 disease.
- Malignant neoplasm of the biliary system: Ref to endoscopic management.
- Sphincter of oddi dysfunction/Post cholecystectomy syndrome.

## 9 **Nutrition**

- Normal nutrition requirement.
- Assessment of nutritional status.
- Nutritional support in various GI disorders (Malabsorption, pancreatitis).

## 10 **G I Radiology**

- MDCT imaging of abdomen.
- M R I Scan with reference to MRCP.
- Interventional Radiology as applied to Gastroenterology: TIPSS/ BRTO/ ENDOVASCULAR THERAPY.

11 **Endoscopy**

- Endoscopic imaging of small bowel: Capsule Endoscopy, balloon enteroscopy.
- Endoscopic Ultra Sound (EUS) Imaging: Therapeutic/ FNAC/ FNAB/ Drainage of fluid collections/ Biliary & Pancreatic endotherapy/guided vascular interventions, coil/glue embolisation of gastric varices & pseudoaneurysm.

12 **Miscellaneous**

- Human intestinal microbiota /Microbiome.
- Obesity; pathogenesis & management with reference to endoscopic bariatric procedures.
- Third space/ submucosal endoscopy.

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**Pattern of Question Papers:**

1. **Objective Type Paper**
2. **Maximum Marks: 150**
3. **Number of Questions: 150**
4. **Duration of Paper : 2.30 Hours**
5. **All Questions carry equal marks**
6. **There will be Negative Marking**

**(For every wrong answer one-third of the marks prescribed for that Particular question shall be deducted.)**