[LD 471] **AUGUST 2013** **Sub. Code: 1471**

D.M. – HEPATOLOGY

Paper I – APPLIED BASIC SCIENCES OF LIVER AND BILIARY SYSTEM INCLUDING PANCREAS

Q. P. Code: 161471

Time: Three Hours **Maximum: 100 Marks**

Answer ALL questions in the same order.

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss in detail about the immunopathogenesis of cholestasis.
2. Discuss in detail the anatomy of collateral circulation and haemodynamics of portal hypertension.

II. Write Notes on: **(10 x 7 = 70)**

1. Bile acids.
2. Special stains in liver biopsy.
3. PELD score.
4. Non invasive markers of liver fibrosis.
5. Von Meyenberg complexes.
6. Life cycle of Echinococcus granulosus.
7. Dysplastic nodule in liver.
8. Prostaglandins in liver.
9. Structure of Hepatitis C virus.
10. Pancreas in cystic fibrosis.

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[LH 471] **AUGUST 2015** **Sub. Code: 1471**

D.M. – HEPATOLOGY

PAPER I – APPLIED BASIC SCIENCES OF LIVER AND BILIARY SYSTEM (INCLUDING PANCREAS)

Q.P. Code : 161471

Time : Three Hours **Maximum : 100 marks**

Answer ALL questions

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss the role of gut microbiota in health and chronic liver disease and applications in therapy of liver disease.
2. Discuss in detail the cell cycle of hepatocytes in response to liver injury or loss of liver mass- the regeneration apoptosis of liver cells.

II. Write notes on : **(10 x 7 = 70)**

1. Hepcidin.
2. HVPG – technique and importance in hepatology practice.
3. Hepatocyte nuclear Factor 6.
4. Pathophysiology of Pulmonary Hypertension.
5. Pit cells.
6. Altered lipid metabolism in liver disease.
7. Adiponectin.
8. Functional anatomy of liver.
9. Eltrombopag in liver disease.
10. Histopathology of chronic hepatitis B and C.

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(LJ 471) AUGUST 2016 **Sub. Code:1471**

D.M. – HEPATOLOGY

Paper I – APPLIED BASIC SCIENCES OF LIVER AND BILIARY SYSTEM INCLUDING PANCREAS

Q.P.Code: 161471

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Alcoholic Hepatitis; Pathogenesis; management.
2. Directly acting anti viral agents against hepatitis C.

II. Write notes on: **(10 x 7 = 70)**

1. Interferons used in liver disease – types of interferon, mechanism of action, indications and side – effects.
2. Obeticholic acid.
3. Discuss stains used in liver biopsy assessment.
4. Non – invasive assessment of liver fibrosis.
5. Therapeutic drug monitoring after liver transplantation.
6. Utility of measuring serum immunoglobulins in liver disease.
7. Use of endosonography to manage pancreatic disorders.
8. Hepatic microvesicular steatosis.
9. Mechanisms of drug induced liver injury.
10. Tropical pancreatitis.

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(LL 471) AUGUST 2017 **Sub. Code:1471**

D.M. – HEPATOLOGY

Paper I – APPLIED BASIC SCIENCES OF LIVER AND BILIARY SYSTEM INCLUDING PANCREAS

Q.P.Code: 161471

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Quantitative Liver function tests and tests to detect Hepatic fibrosis.

2. Describe the anatomy and physiology of sphincter of oddi and diagnostic methods of sphincter of oddi dysfunction.

II. Write notes on: **(10 x 7 = 70)**

1. Pit cells.
2. Iron Metabolism.
3. Role of fat cells in obesity.
4. Liver function in pregnancy.
5. Cytokeratins.
6. Toll receptors.
7. Pancreatic islet cells.
8. Terlipressin.
9. Stigmata of chronic liver disease.
10. Life cycle of *Clonorchis sinensis*.

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(LN 471) AUGUST 2018 **Sub. Code: 1471**

D.M. – HEPATOLOGY

Paper I – APPLIED BASIC SCIENCES OF LIVER AND BILIARY SYSTEM INCLUDING PANCREAS

Q.P.Code: 161471

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Anatomy, Histology, Blood supply and embryology of common bile duct and approach to a patient with choledocholithiasis.

2. Pancreatic Function tests.

II. Write notes on: **(10 x 7 = 70)**

1. Intra hepatic biliary tree.
2. Gamma glutamyl transpeptidases.
3. Copper metabolism.
4. Real time PCR assay.
5. N-acetyl cysteine.
6. Life cycle of *Fasciola hepatica*.
7. Histopathology of liver in alcoholic liver disease.
8. King's College criteria.
9. Pancreatic nest.
10. Entero hepatic circulation.

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(LP 471) AUGUST 2019 **Sub. Code: 1471**

D.M. – HEPATOLOGY

Paper I – APPLIED BASIC SCIENCE OF LIVER AND BILIARY SYSTEM INCLUDING PANCREAS

Q.P. Code: 161471

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Classification of jaundice. Discuss in detail about clinical relevance, causes and management of isolated hyperbilirubinimias.

2. Discuss in detail about Fatty Acid Oxidation defects encountered in Hepatology practice.

II. Write notes on: **(10 x 7 = 70)**

1. Hepatic stellate cells.
2. Neurotoxins in Hepatic encephalopathy.
3. Corset Liver.
4. Pharmacotherapy of portal hypertensive bleed.
5. Toll Like Receptors in liver disease.
6. Thrombophilia in Hepatic outflow tract obstruction.
7. Vasoactive substances – Role in portal hypertension.
8. Describe the different cell types within the liver and their function.
9. Tacrolimus – relevance in hepatology.
10. Structure of Hepatitis C and its relevance in newer antivirals.

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(DM 0221) FEBRUARY 2021 **Sub. Code: 1471**

D.M. – HEPATOLOGY

Paper I – APPLIED BASIC SCIENCES OF LIVER AND BILIARY SYSTEM INCLUDING PANCREAS

Q.P. Code: 161471

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Liver metastases in patient with colorectal carcinoma: management.

2. Non invasive assessment of liver fibrosis: techniques, clinical utility.

II. Write notes on: **(10 x 7 = 70)**

1. Stains used to analyse liver biopsy.
2. Use of viscoelastic tests in hepatology.
3. Hepatitis B Flare.
4. Autoimmune Hepatitis: types, diagnosis.
5. Parasitic diseases affecting the liver.
6. Myeloproliferative neoplasms in Budd Chiari Syndrome.
7. Hepatitis E in pregnancy.
8. Tests to diagnose peritoneal Tuberculosis.
9. Amyloidosis of liver.
10. Risk factors for Hepatocellular Carcinoma.

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(DM 0821) AUGUST 2021 **Sub. Code: 1471**

D.M. – HEPATOLOGY

Paper I – APPLIED BASIC SCIENCES OF LIVER AND BILIARY SYSTEM INCLUDING PANCREAS

Q.P. Code: 161471

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Cerebral edema in acute liver failure: pathogenesis, clinical features, management.

2. Hepatic venous pressure gradient measurement : technique, clinical utility.

II. Write notes on: **(10 x 7 = 70)**

1. Granulomatous hepatitis : causes, management.
2. Hepatitis D.
3. Seronegative hepatitis.
4. Occult hepatitis B.
5. Iron overload syndromes affecting liver.
6. Hepato-renal syndrome: types, management.
7. Genetic tests to evaluate inherited liver diseases.
8. Hepatic malignancy and Budd Chiari syndrome.
9. Biliary ascariasis.
10. Liquid biopsy in patients with malignancies of liver or pancreas.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0822] AUGUST 2022 Sub. Code :1471

D.M. – HEPATOLOGY

Paper I – APPLIED BASIC SCIENCES OF LIVER AND BILIARY SYSTEM INCLUDING PANCREAS

Q.P. Code: 161471

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss in detail about hepatitis due to non hepatotrophic viruses – clinical manifestations and diagnosis.

2. Scoring system and Evolution of critical care management in acute liver failure.

II. Write notes on: **(10 x 7 = 70)**

1. Early detection of pancreatic cancer.
2. Prognostic indices in Acute Pancreatitis.
3. Extracorporeal liver support.
4. Artificial intelligence in liver.
5. Direct Oral Anticoagulants in Budd-Chiari Syndrome.
6. HVPG.
7. Urinary biomarkers in cirrhosis.
8. Tuberculoma in liver.
9. Drug induced liver injury unique to India.
10. Recent development and Hepatitis B Vaccination in India.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0124] JANUARY 2024 Sub. Code :1471

D.M. – HEPATOLOGY

PAPER I – APPLIED BASIC SCIENCE OF LIVER AND BILIARY SYSTEM INCLUDING PANCREAS

Q.P. Code: 161471

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. What is the pathogenesis of Nonalcoholic fatty liver disease? Describe in detail the various mechanisms involved.

2. Describe the hepatocyte and discuss bile acids in health and disease.

II. Write notes on: **(10 x 7 = 70)**

1. Treatment of Alcohol use disorder in Chronic Liver Disease.
2. Immunopathogenesis of Autoimmune Hepatitis.
3. Management of Symptoms and Complications of Cholestasis.
4. The Pathophysiology of Cholestasis and its Relevance to Clinical Practice.
5. Criteria and classification of sphincter of oddi dysfunction.
6. Cystic tumours of pancreas.
7. Non Invasive Pancreatic function Tests.
8. Discuss various scoring systems in the diagnosis of acute pancreatitis.
9. Discuss the digestion and absorption of fat and tests of fat malabsorption.
10. Discuss in brief the importance of Groove pancreatitis.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[DM 0225] **FEBRUARY 2025** **Sub. Code :1471**

D.M. – HEPATOLOGY

PAPER I – APPLIED BASIC SCIENCES OF LIVER AND BILIARY SYSTEM INCLUDING PANCREAS

Q.P. Code: 161471

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Challenges in achieving functional cure for hepatitis B.
2. Newer drugs to treat steatotic liver disease.

II. Write notes on: **(10 x 7 = 70)**

1. Hepatitis C virus core antigen.
2. Fecal microbiota transplantation in patients with liver diseases.
3. Hepatitis D virus.
4. Peritoneal tuberculosis.
5. Second line treatment for autoimmune hepatitis.
6. Gilbert's syndrome.
7. Drug induced liver injury.
8. Liquid biopsies for hepatic malignancy.
9. Hepatitis A virus outbreaks in India – pathogenesis, treatment.
10. Endoscopic ultrasound: utility in patients with liver diseases.

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THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY

[DM 0126] **JANUARY 2026** **Sub. Code :1471**

D.M. – HEPATOLOGY

PAPER I – APPLIED BASIC SCIENCE OF LIVER AND BILIARY SYSTEM INCLUDING PANCREAS

Q.P. Code: 161471

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Extracorporeal liver support systems and their utility in liver failure syndromes.
2. Gut microbiota – Evolving role in pathogenesis and management of liver and pancreatic disorders.

II. Write notes on: **(10 x 7 = 70)**

1. GLP-1 receptor agonists.
2. Re-compensation of cirrhosis.
3. Endo-hepatology.
4. National Viral Hepatitis Control Program.
5. Machine perfusion of donor liver.
6. Nutrition management in pancreatic disorders.
7. MELD score and its variants.
8. Changing epidemiology of hepatitis A in India.
9. Mallory Denk bodies in liver biopsy.
10. Drugs to treat hepatocellular carcinoma.

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