

[LF 464]

AUGUST 2014

Sub. Code: 1464

D.M. – ENDOCRINOLOGY

Paper IV – RECENT ADVANCES AND TRENDS IN ENDOCRINOLOGY

Q. P. Code: 161464

Time: Three Hours

Maximum: 100 Marks

Answer ALL questions in the same order.

I. Elaborate on:

(2 x 15 = 30)

1. Emerging therapies for Diabetes.
2. Gut microbiota and Endocrinology.

II. Write notes on:

(10 x 7 = 70)

1. Selective insulin receptor modulators.
2. Sclerostin Antagonists.
3. Calcimimetic agents.
4. Newer insulin analogues.
5. GLP -1 analogues and the pancreas.
6. Aquaretics.
7. Stem cells in Endocrinology.
8. GnRH Agonists.
9. Recombinant human TSH.
10. Sulphonylureas and ischaemic preconditioning.

[LH 464]

AUGUST 2015

Sub. Code: 1464

D.M. – ENDOCRINOLOGY

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Q.P. Code : 161464

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 15 = 30)

1. Emerging therapies in the Management of Osteoporosis.
2. Molecular diagnostics for Thyroid Nodules.

II. Write notes on :

(10 x 7 = 70)

1. GLP - 1 analogues.
2. Artificial Pancreas.
3. Long acting Growth hormone Preparations.
4. Genetics of Pheochromocytoma.
5. Selective progesterone receptor modulator.
6. NAFLD.
7. New guidelines and classification of GDM.
8. GRASS – TRIAL (selenium supplementation in Graves hyperthyroid).
9. Ghrelin Agonist.
10. Alternative Approaches to thyroid gland surgery.

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Q.P.Code: 161464

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Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Anti-Diabetic drugs affecting glucagon metabolism.
2. Wnt signalling targets in the management of osteoporosis.

II. Write notes on:

(10 x 7 = 70)

1. Anti-Mullerian Hormone (AMH) as a marker of ovarian reserve.
2. Euglycemic Diabetic ketoacidosis.
3. RET Proto-oncogene.
4. Genetics of adrenocortical carcinoma.
5. Novel targeted therapies in the management of metastatic thyroid malignancy.
6. Novel glucocorticoid replacement therapies.
7. SGLT 2 inhibitors- efficacy, cardiovascular outcomes and adverse effects.
8. Diagnostic and therapeutic use of somatostatin analogues.
9. Medical management of persistent hypoglycaemia in patients with malignant insulinoma.
10. Mass spectrometry.

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Q.P.Code: 161464

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Management of disseminated thyroid cancer.
2. Drug – Bone Interactions: SSRI (Selective serotonin Reuptake inhibitors), PPIs (Proton Pump inhibitors), Thiazolidinediones, What is the evidence that these drugs cause Osteoporosis?

II. Write notes on:

(10 x 7 = 70)

1. Denozumab.
2. Inhaled insulin therapy.
3. SGLT – 2 inhibitors.
4. Popamine Agonists and the pituitary.
5. IgG4 in endocrine disorders.
6. Kisspeptin.
7. Newer thyroid hormone preparations.
8. Copeptin.
9. Alcohol Ablation of thyroid nodules.
10. Aromatase inhibitors.

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Q.P.Code: 161464

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Isotope therapy in neuroendocrine tumours.
2. Pheochromocytoma and paraganglioma from genetics to personalized medicine.

II. Write notes on:

(10 x 7 = 70)

1. Endocrine disruptors.
2. Clinical significance and therapeutic potentials of metabolic hormone fibroblastic growth factor - 21.
3. Role of Molecular Diagnostics for Indeterminate Thyroid Nodules.
4. Classification and pathogenesis of pseudohypoparathyroidism.
5. Vasopressin antagonists.
6. Potential applications of NGS in endocrinology.
7. VEGF inhibitors.
8. Current and evolving treatment options in Pituitary carcinoma.
9. WNT signalling pathway; current and future prospective in Endocrinology.
10. CETP inhibitors in the management of dyslipidemia – current status.

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Q.P.Code: 161464

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Tyrosine Kinase inhibitors in thyroid cancer therapy.
2. Current and evolving treatment options in adrenocortical carcinoma.

II. Write notes on:

(10 x 7 = 70)

1. Post transplant diabetes.
2. Newer insulins.
3. Cardiovascular safety trials of newer antidiabetic agents.
4. GLP analogues.
5. MTOR pathway relevance to Endocrinology.
6. Stem cell therapy in diabetes.
7. Karyotyping in Endocrinology.
8. Co-peptin.
9. Ghrelin.
10. Anabolic therapy in management of osteoporosis – recent advances.

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Q.P. Code: 161464

Time: Three Hours

Maximum: 100 Marks

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

1. Obesity management for treatment of Type 2 Diabetes.
2. Osteoporosis in Men.

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

1. Subclinical hypothyroidism and cardiac risk.
2. Efficacy of Teriparatide in patients with hypoparathyroidism.
3. IgG4 related hypophysitis.
4. Personalized HbA1c targets.
5. Diagnosis and significance of pulmonary micro vascular disease in Diabetes.
6. Long safety of Growth Hormone therapy.
7. Management of radioiodine refractory differentiated thyroid cancers.
8. Denosumab vs. Bisphosphonates for treating postmenopausal osteoporosis.
9. The Desmopressin test in the evaluation and follow up of patients with Cushing's syndrome.
10. Congenital adrenal hyperplasia – long term follow up.

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Q.P. Code: 161464

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Post transplant diabetes: definition, etiology, treatment and preventive strategies.
2. Ocular anti – VEGF therapy for the treatment of Diabetic macular oedema : Mechanism of action, efficacy, adverse effects.

II. Write notes on:

(10 x 7 = 70)

1. Tyrosine Kinase inhibitors in management of Endocrine tumours.
2. Genetics of MEN-1.
3. Osteogenesis imperfecta, classification and management.
4. Molecular genetics of pheochromocytoma.
5. “Biosimilar” insulin.
6. Current status of islet cell transplantation.
7. DPP4 inhibitors.
8. Bariatric surgery- Long term outcomes.
9. Role of PET scan in the management of thyroid cancer.
10. Recombinant PTH (rPTH).

(DM 0821)

AUGUST 2021

Sub. Code: 1464

D.M. – ENDOCRINOLOGY

Paper IV – RECENT ADVANCES AND TRENDS IN ENDOCRINOLOGY

Q.P. Code: 161464

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Gender identity disorder and care of transgender youth and adults.
2. Hypophysitis: An update on the novel forms.

II. Write notes on:

(10 x 7 = 70)

1. Biosimilar insulin.
2. Subclinical hypothyroidism in pregnancy current guidelines on management.
3. Dopamine agonist resistant prolactinomas.
4. Current status of islet transplantation.
5. Cushing's disease recurrence: Treatment options.
6. Temozolomide: In aggressive pituitary adenomas.
7. Cardio – renal protection with SGLT2 inhibitors.
8. Proton beam therapy.
9. Performance – Enhancing hormones.
10. Insulin pumps.

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

[DM 0822]

AUGUST 2022

Sub. Code :1464

D.M. – ENDOCRINOLOGY

Paper IV – RECENT ADVANCES AND TRENDS IN ENDOCRINOLOGY

Q.P. Code: 161464

Time: Three Hours

Maximum: 100 Marks

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

1. Cardiovascular outcome trials on SGLT2 inhibitors in diabetes.
2. Anti-obesity medications: recent advances.

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

1. Molecular Imaging Targeting Corticotropin-releasing Hormone Receptor for Corticotropinomas.
2. Keto-Diets for weight loss – Evidence, benefits and risks.
3. Assessment of insulin resistance at the level of muscle.
4. Recent advances in the management of metastatic neuroendocrine tumours.
5. Stem cell therapy for adrenoleucodystrophy.
6. Sarcopenic obesity.
7. The different phenotypes of diabetes.
8. Drug targets for non-alcoholic fatty liver disease.
9. Hair cortisol – Utility in the assessment of Cushing's syndrome.
10. Vitamin D Analogues.

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

[DM 0124]

JANUARY 2024

Sub. Code :1464

D.M. – ENDOCRINOLOGY

PAPER IV – RECENT ADVANCES AND TRENDS IN ENDOCRINOLOGY

Q.P. Code: 161464

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Male Osteoporosis: Diagnosis and management.
2. Genetic studies in patients with Pheochromocytoma and Paraganglioma.

II. Write notes on:

(10 x 7 = 70)

1. GLP – 1 receptor agonists: role in the management obesity, PCOS and infertility.
2. Diabetic Ketoacidosis in patients on SGLT 2 inhibitors.
3. Normocalcemic Hyperparathyroidism.
4. Monoclonal antibodies used for treating Osteoporosis.
5. Complications of Metabolic Surgery.
6. Medical management of Cushing's Syndrome.
7. BRAF and Endocrine Tumors.
8. Role of PET – CT in patients with differentiated Thyroid Cancer.
9. Diabetic Gastroparesis.
10. Refeeding Syndrome.

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

[DM 0824]

AUGUST 2024

Sub. Code :1464

D.M. – ENDOCRINOLOGY

PAPER IV – RECENT ADVANCES AND TRENDS IN ENDOCRINOLOGY

Q.P. Code: 161464

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Management of Steroid induced endocrine complications.
2. Screening and biochemical confirmation of primary hyperaldosteronism.

II. Write notes on:

(10 x 7 = 70)

1. Burosumab.
2. Advances in management of thyroid orbitopathy.
3. Novel drugs used to treat hyperlipidemia.
4. Current status of combined T4 and T3 therapy.
5. Status of postoperative radioiodine therapy in differentiated thyroid cancer.
6. Approach to management of testicular adrenal rests.
7. Semaglutide.
8. Newer ways to differentiate constitutional growth delay and hypogonadotropic hypogonadism.
9. Pathophysiology of diabetes reversal.
10. Pressure offloading devices in diabetic foot ulcers.

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

[DM 0225]

FEBRUARY 2025

Sub. Code :1464

D.M. – ENDOCRINOLOGY

PAPER IV – RECENT ADVANCES AND TRENDS IN ENDOCRINOLOGY

Q.P. Code: 161464

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. What are the causes of hypertension with hypokalemia? Discuss in detail about the diagnosis of primary hyperaldosteronism and its treatment.
2. Describe Phosphate homeostasis. Discuss in detail about the presentation, diagnosis and management of Tumor induced osteomalacia.

II. Write notes on

(7 x 10 = 70)

1. Bilateral Adrenocortical Nodular Disease and Cushing's Syndrome.
2. Bone health in patients with breast cancer.
3. Dietary interventions in Type 1 Diabetes.
4. Metformin use in pregnancy and perinatal outcomes.
5. Parathyroidectomy vs. Medical Treatments for Secondary Hyperparathyroidism in Patients Undergoing Dialysis.
6. Premature ovarian insufficiency.
7. Minipuberty.
8. Tirzepatide – utility in diabetes and obesity.
9. Tyrosine kinase inhibitors in endocrinology.
10. Acquired hypopituitarism in adults– etiology and evaluation.

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

[DM 0126]

JANUARY 2026

Sub. Code :1464

D.M. – ENDOCRINOLOGY

PAPER IV – RECENT ADVANCES AND TRENDS IN ENDOCRINOLOGY

Q.P. Code: 161464

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Advance in Long-Acting Growth Hormone Therapy for pediatric growth hormone deficiency: From clinical trials to clinical practice.
2. Discuss Beta cell replacement therapies in diabetes mellitus. Describe indications, types of therapies and current challenges and future directions.

II. Write notes on:

(7 x 10 = 70)

1. Monoclonal antibodies for treatment of osteoporosis.
2. Monogenic obesity- Pharmacological management.
3. Metabolic dysfunction – associated Steatotic liver disease. Newer management option.
4. 2022 WHO classification of thyroid neoplasm.
5. Remission of type 2 diabetes – Pathophysiological mechanisms.
6. Second line treatment of moderate to severe and active Graves' orbitopathy.
7. New insights on the genetics of phaeochromocytoma and paraganglioma.
8. Immune checkpoint inhibitors and endocrine adverse effects.
9. Role of Anti-mullerian hormone in PCOS – Recent Evidences.
10. Aphrodite criteria and male infertility.
