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

(D.DIAB 0524) **MAY 2024** **Sub. Code: 4016**

DIPLOMA IN DIABETOLOGY (D.DIAB) EXAMINATION

PAPER I – APPLIED BASIC MEDICAL SCINECES IN DIABETOLOGY

Q.P .Code: 344016

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

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

1. Describe the structure of insulin and discuss the stages of insulin biosynthesis, processing and its regulation.

2. Describe the Lipid metabolism in normal and diabetes and discuss in detail the pathophysiology of dyslipidaemia in Type 1 and Type 2 DM.

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

1. Gluconeogenesis.
2. Nasopharyngeal Rhinosporidiosis.
3. Glucokinase deficiency.
4. Adipocyte as an endocrine organ.
5. Incretin effect.
6. Polycystic ovarian syndrome.
7. Diabetic cardiomyopathy.
8. Cystic fibrosis related diabetes.
9. Insulin receptor.
10. Metformin.

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

(D. DIAB 1224) **DECEMBER 2024** **Sub. Code: 4016**

(OCTOBER 2024 EXAM SESSION)

DIPLOMA IN DIABETOLOGY (D. DIAB) EXAMINATION

PAPER I – APPLIED BASIC MEDICAL SCINECES IN DIABETOLOGY

Q. P. Code: 344016

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

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

1. Describe in detail development, anatomy, histology and blood supply of Pancreas with special reference to beta cell anatomy in T2DM.

2. Discuss in detail etiopathogenesis, immunology and progression of T1DM.

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

1. Embden Meyerhoff pathway.
2. Ghrelin.
3. Insulin secretion in vivo.
4. Lipoprotein lipase enzyme.
5. Insulin Secretagogues.
6. Trans fat.
7. Insulin gene.
8. Necrotizing fasciitis.
9. Metabolic adaptations during fasting state.
10. Drug induced diabetes.

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

(D. DIAB 1025] **OCTOBER 2025** **Sub. Code: 4016**

DIPLOMA IN DIABETOLOGY (D. DIAB) EXAMINATION

PAPER I – APPLIED BASIC MEDICAL SCINECES IN DIABETOLOGY

Q. P. Code: 344016

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

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

1. Describe the normal physiology of Renal Glucose filtration and role of SGLT-2 Inhibitors in the management of Type 2 Diabetes mellitus.

2. Discuss in detail about Ketosis prone Diabetes mellitus.

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

1. Glycemic goals in Diabetes management.
2. Diagnostic criteria of Metabolic syndrome.
3. Goals of Medical Nutrition therapy.
4. Amylin analogues.
5. HNF 1 β mutation.
6. Dedifferentiation and redifferentiation of β cells.
7. Serum fructosamine.
8. Polypharmacy.
9. Impaired awareness of hypoglycemia.
10. Imeglimin.

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