

August 2011

[KZ 066]

Sub. Code: 1903

**MASTER OF CHIRURGIAE (M.Ch.) DEGREE EXAMINATION
(SUPER SPECIALITIES)**

BRANCH X – ENDOCRINE SURGERY

**ENDOCRINE SURGERY – FOCUSED TO THYROID
AND THYROID RELATED DISEASES**

Q.P. Code:181903

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

**Pages Time Marks
(Max.) (Max.) (Max.)**

- | | | | |
|--|----|----|----|
| 1. 27 years old female patient underwent Total thyroidectomy for multinodular goiter. Pathology report of the thyroid was well differentiated papillary carcinoma involving both lobes of thyroid. Discuss in detail the management of this patient. | 11 | 35 | 15 |
| 2. A 23 years old female patient presented with a goiter which was associated with Exophthalmos, tachycardia and tremers. Write in detail the management of this patient. | 11 | 35 | 15 |

II. Write notes on :

- | | | | |
|---|---|----|---|
| 1. Management of Recurrent laryngeal nerve injury. | 4 | 10 | 7 |
| 2. Investigations and management of a patient with a Dyshormonogenic goiter due to organification defect. | 4 | 10 | 7 |
| 3. Role of RET oncogene in medullary carcinoma of thyroid. | 4 | 10 | 7 |
| 4. Management of thyrotoxicosis in pregnancy. | 4 | 10 | 7 |
| 5. Tumour markers in medullary carcinoma of thyroid and its Relevance in the management of MTC. | 4 | 10 | 7 |
| 6. Ectopic thyroid and Hemiagenesis of thyroid. | 4 | 10 | 7 |
| 7. Management of Juvenile Autoimmune thyroiditis. | 4 | 10 | 7 |
| 8. Radio Iodine uptake and scan in various benign thyroid diseases. | 4 | 10 | 7 |
| 9. Relevance of serum Thyroglobulin in the postoperative Management of differentiated thyroid carcinoma. | 4 | 10 | 7 |
| 10. Ultrasonogram of neck in the diagnosis and management of papillary carcinoma of thyroid. | 4 | 10 | 7 |

[LB 066]

AUGUST 2012

Sub. Code: 1903

M.Ch – ENDOCRINE SURGERY
Paper – III ENDOCRINE SURGERY – FOCUSED
TO THYROID AND THYROID RELATED DISEASES
Q.P. Code: 181903

Time : 3 hours
(180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

Pages Time Marks
(Max.)(Max.)(Max.)

- | | | | |
|---|----|----|----|
| 1. Write in detail about lymphnode dissection in differentiated Thyroid cancer. | 16 | 35 | 15 |
| 2. Thyroid hormone synthesis and management of Dyshormonogenic goitre | 16 | 35 | 15 |

II. Write notes on :

- | | | | |
|---|---|----|---|
| 1. Toxic nodule. | 4 | 10 | 7 |
| 2. Management of thyroid storm after surgery for Grave's disease. | 4 | 10 | 7 |
| 3. Management of juvenile autoimmune thyroiditis. | 4 | 10 | 7 |
| 4. Thyrotoxicosis in pregnancy | 4 | 10 | 7 |
| 5. Radio iodine ablation in differentiated thyroid cancer | 4 | 10 | 7 |
| 6. Role of thyroplasty in vocal cord palsy | 4 | 10 | 7 |
| 7. Ectopic thyroid, its various locations and its mangement | 4 | 10 | 7 |
| 8. Relevance of vocal cord assessment in thyroid surgery | 4 | 10 | 7 |
| 9. TSHr antibodies in autoimmune thyroid disorders. | 4 | 10 | 7 |
| 10. RET oncogene | 4 | 10 | 7 |

(LD 066)

AUGUST 2013

Sub. Code:1903

M.Ch. – ENDOCRINE SURGERY
Paper – III ENDOCRINE SURGERY – FOCUSED TO THYROID AND
RELATED DISEASES

Q.P.Code: 181903

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Detail the synthesis of thyroid hormones. Discuss the clinical presentation and management of thyroid dysfunction.
2. Describe the clinico-pathological features of medullary carcinoma thyroid and its management.

II. Write notes on:

(10X7=70)

1. Median ectopic thyroid.
2. Post operative treatment and follow up of well differentiated thyroid cancer.
3. Surgical handling of the recurrent laryngeal nerve.
4. Autoimmune thyroiditis.
5. Tubercle of Zuckerkandl and its surgical importance.
6. Dyshormonogenetic goitre.
7. Thyrotoxicosis in pregnancy.
8. Management of eye disease in Graves' disease.
9. Management of vertebral metastasis from thyroid cancer.
10. Radioisotope ablation in thyroid disease.

[LF 066]

AUGUST 2014

Sub. Code: 1903

M.Ch. – ENDOCRINE SURGERY

**Paper III – ENDOCRINE SURGERY – FOCUSED TO THYROID AND
THYROID RELATED DISEASES**

Q. P. Code: 181903

Time: Three Hours

Maximum: 100 Marks

Answer ALL questions in the same order.

I. Elaborate on:

(2 x 15 = 30)

1. Molecular genetics of development of thyroid and its clinical implications and management of various thyroid dysgenesis.
2. Explain the Genetic and non iodine causes of Benign thyroid nodule and principles in the management of large and substernal goiter.

II. Write notes on:

(10 x 7 = 70)

1. Follow up of patient with DTC with positive antithyroglobulin antibody
2. Werner`s test
3. Hashimotos encephalopathy and clinical importance of Ig G4 antibodies in Hashimotos thyroiditis
4. Thyroxine binding globulin and its clinical implications
5. Neuropsychiatric manifestations of thyroid diseases
6. TSH suppressing therapy for Benign thyroid nodule-Pros and Cons
7. ^{99m}Tc MIBI scan in MNG
8. Factors influencing circulating thyroglobulin concentration and its clinical implications in non malignant thyroid conditions
9. Management of goiter related oesophageal compression and swallowing dysfunction
10. Apathetic hyperthyroidism and Takotsubocardiomyopathy.

M.Ch. – ENDOCRINE SURGERY

Paper III – ENDOCRINE SURGERY – FOCUSED TO THYROID AND THYROID RELATED DISEASES

Q.P.Code: 181903

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the etiology, clinical presentation, diagnosis and management of well differentiated carcinoma thyroid.
2. Describe the clinical features of Graves' disease and its management.

II. Write notes on:

(10 x 7 = 70)

1. Redifferentiation therapy in thyroid cancer
2. Follicular thyroid cancer
3. Laryngeal nerves.
4. Autoimmune disorders of the thyroid gland.
5. Types of neck lymph node dissection in the treatment of thyroid cancer
6. Endemic goitre.
7. Radioisotopes in diagnosis of thyroid disease.
8. Lingual thyroid
9. Management of bone metastasis from thyroid cancer.
10. Role of external beam radiotherapy in thyroid disease.

[LH 066]

AUGUST 2015

Sub. Code: 1903

M.Ch. – ENDOCRINE SURGERY
PAPER III – ENDOCRINE SURGERY – FOCUSED TO THYROID
AND THYROID RELATED DISEASES

Q.P. Code: 181903

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 15 = 30)

1. Familial Non-Medullary Thyroid cancers- genetics and management strategies.
2. Graves' disease: metabolic changes and management options.

II. Write notes on :

(10 x 7 = 70)

1. TSH Suppressive therapy in Thyroid cancers.
2. Hurthle Cell neoplasms.
3. Endemic goiters.
4. Laser ablation in benign thyroid nodules.
5. Benefits versus harm of prophylactic central compartment neck dissection in Papillary thyroid cancers.
6. Complications of re-operative thyroid surgeries.
7. Thyroid lymphoma management.
8. Role of Radiation therapy in Thyroid cancers.
9. Retrosternal Goiters.
10. Tracheo-laryngeal resections in Thyroid cancer.

M.Ch. – ENDOCRINE SURGERY

Paper III – ENDOCRINE SURGERY – FOCUSED TO THYROID AND THYROID RELATED DISEASES

Q.P.Code: 181903

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe the stages of involvement of the aerodigestive tract in well differentiated thyroid cancers and the management for each of the stage.
2. Describe the pathogenesis, diagnosis and management of Graves' disease.

II. Write notes on:

(10 x 7 = 70)

1. Risk stratifications systems for Papillary Thyroid Cancer (PTC).
2. Management of TENIS.
3. Non-surgical management of thyroid cancer recurrence.
4. Familial non-medullary thyroid cancer.
5. Myxoedema coma.
6. Hurthle cell carcinoma.
7. Indications and complications of radioactive iodine therapy.
8. Management of indeterminate thyroid nodule.
9. Cysts of the thyroid.
10. Paediatric thyroid carcinoma.

M.Ch. – ENDOCRINE SURGERY

Paper III – ENDOCRINE SURGERY – FOCUSED TO THYROID AND THYROID RELATED DISEASES

Q.P.Code: 181903

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss in detail the epidemiology, pathology and management of iodine deficiency goitres.
2. Discuss the pathology of thyroid tumours in detail.

II. Write notes on:

(10 x 7 = 70)

1. Etiology of thyroiditis.
2. Suppressive thyroxine therapy.
3. Role of calcitonin in normal and disease states.
4. Surgical importance of the thymic gland.
5. Clinical manifestations of Graves' disease.
6. Compressive symptoms of goitre.
7. Solitary nodule of thyroid.
8. Ultrasound features of thyroid diseases.
9. Role of external beam radiation in thyroid diseases.
10. Voice assessment techniques and role in thyroid surgery.

(LN 066)

AUGUST 2018

Sub. Code: 1903

M.Ch. – ENDOCRINE SURGERY

**Paper III – ENDOCRINE SURGERY – FOCUSED TO THYROID AND
THYROID RELATED DISEASES**

Q.P.Code: 181903

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Management of stridor due to tracheal infiltration by thyroid cancer.
2. Thyrotoxicosis and its metabolic effects on all systems.

II. Write notes on:

(10 x 7 = 70)

1. Retinoic acid therapy in thyroid cancers.
2. Radioactive iodine ablation in thyroid cancers.
3. Energy devices used in thyroid surgeries.
4. Post partum thyroiditis.
5. Dyshormonogenic goiters.
6. Genetic testing in thyroid cancers.
7. Detached thyroid nodules.
8. Surgical approach for re-operative thyroid surgery.
9. Iodine excess and thyroid disorders.
10. Familial Medullary thyroid cancer and role of prophylactic thyroid surgery.

M.Ch. – ENDOCRINE SURGERY

**Paper III – ENDOCRINE SURGERY – FOCUSED TO THYROID AND
THYROID RELATED DISEASES**

Q.P. Code: 181903

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Management of a patient with MEN 2A syndrome.
2. Management of a patient with Graves' disease.

II. Write notes on:

(10 x 7 = 70)

1. Parathyroid function assessment post thyroidectomy.
2. Calcium replacement in post thyroidectomy hypocalcemia.
3. Management of Hashitoxicosis.
4. Management of Retrosternal goiter.
5. Management of post operative voice change.
6. Tracheomalacia.
7. Hypercalcitoninemia.
8. Somatic mutations in sporadic MTC and implications to aggressiveness.
9. Pathophysiology of post thyroidectomy hematoma causing stridor.
10. Hungry bone syndrome.

(LR 066)

NOVEMBER 2020
(AUGUST 2020 SESSION)

Sub. Code: 1903

M.Ch. – ENDOCRINE SURGERY

**Paper III – ENDOCRINE SURGERY – FOCUSED TO THYROID AND
THYROID RELATED DISEASES**

Q.P. Code: 181903

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Types of thyroiditis and their management
2. Management of neck nodes in well-differentiated thyroid cancer

II. Write notes on:

(10 x 7 = 70)

1. Invasion of carotid sheath structures in thyroid cancer
2. Non-recurrent laryngeal nerve
3. Thyroglossal cyst
4. Anti-thyroid drugs
5. Peri-operative management of Graves' disease
6. Universal iodine supplementation
7. Thyroid antibody testing
8. Thyro-thymic thyroid rests and its clinical significance
9. Management of post thyroidectomy hematoma
10. Hypomagnesemia

(MCH 0821)

AUGUST 2021

Sub. Code: 1903

M.Ch. – ENDOCRINE SURGERY

**Paper III – ENDOCRINE SURGERY – FOCUSED TO THYROID AND
THYROID RELATED DISEASES**

Q.P. Code: 181903

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Genetic evaluation in the management of thyroid cancer.
2. Surgical technique for safe total thyroidectomy.

II. Write notes on:

(10 x 7 = 70)

1. Lingual thyroid.
2. Classification of retrosternal goiter.
3. Dynamic risk stratification in thyroid cancer.
4. Lugol's iodine.
5. Trab in management on graves' disease.
6. Clinical management of hashimoto's thyroiditis.
7. Thyroid lymphoma.
8. Biochemical evaluation of hypothyroidism.
9. RET proto-oncogene.
10. Iodine ablative therapy in differentiated thyroid cancer.

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

(MCH 0822)

AUGUST 2022

Sub. Code: 1903

M.Ch. – ENDOCRINE SURGERY

**Paper III – ENDOCRINE SURGERY – FOCUSED TO THYROID AND
THYROID RELATED DISEASES**

Q.P. Code: 181903

Time: Three Hours

Maximum: 100 Marks

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

1. Describe various approaches to identify recurrent laryngeal nerve and. Management of a patient with post surgical RLN injury.
2. Follow up and TSH suppression therapy of a patient with DTC.

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

1. Management of chyle leak.
2. NIFTP.
3. Classifications of retro sternal goitres and their implication in management.
4. Surgeon performed ultrasound for thyroid and parathyroid glands.
5. Graves ophthalmopathy.
6. Intermittent IONM.
7. Management of a patient with post operative hypocalcemia and discuss various calcium preparations and their efficacies.
8. Anatomy of voice.
9. Familial medullary thyroid carcinoma.
10. Elaborate various classifications of EBSLN.

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

(MCH 0124)

JANUARY 2024

Sub. Code: 1903

M.Ch. – ENDOCRINE SURGERY

**PAPER III – ENDOCRINE SURGERY – FOCUSSED TO THYROID AND
THYROID RELATED DISEASES**

Q.P. Code: 181903

Time: Three Hours

Maximum: 100 Marks

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

1. Oncogenesis and targeted therapy of thyroid malignancies.
2. Evaluation and management of thyroid cancer invading Aero digestive tract.

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

1. Unusual thyroid cancers.
2. rTSH.
3. Graves ophthalmopathy.
4. Evaluation and management of recurrent DTC.
5. Dyshormonogenetic goiter.
6. Risk stratification systems in PTC.
7. Continuous IONM.
8. Non thyroidal illness syndrome.
9. Clinical importance of various thyroid auto antibodies.
10. Screening protocol of a 1st degree relative of MEN 1 syndrome patient.

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

(MCH 0225)

FEBRUARY 2025

Sub. Code: 1903

M.Ch. BRACH X – ENDOCRINE SURGERY

**PAPER III – ENDOCRINE SURGERY – FOCUSED TO THYROID &
THYROID RELATED DISEASES**

Q.P. Code: 181903

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. A 65-year-old gentleman presented to the emergency department in stridor. He gives a 3-month history of an enlarging goitre. What are your differential diagnosis and discuss in detail your management for this patient?
2. A 52-year-old lady presented with severe low back pain of 2 months duration. MRI spine revealed a mass at L2 vertebra. She also has an asymptomatic multinodular goitre for the past 10 year. Biopsy from the vertebral mass was reported to be metastatic papillary thyroid carcinoma. Describe how you will evaluate and manage this patient.

II. Write notes on:

(10 x 7 = 70)

1. Histological subtypes of papillary thyroid carcinoma and their clinical implications.
2. Management of thyroid nodule with indeterminate FNAC.
3. TIRADS scoring system.
4. Parathyroid preservation during thyroid surgery.
5. Extra-cervical approaches to thyroid surgery.
6. Controversies in the management of low risk differentiated thyroid cancer.
7. Nimodipine for RLN injury.
8. Intraoperative nerve monitoring.
9. Thyroglobulin.
10. External radiotherapy for thyroid cancer.

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

(MCH 0126)

JANUARY 2026

Sub. Code: 1903

M.Ch. – ENDOCRINE SURGERY

**PAPER III – ENDOCRINE SURGERY – FOCUSED TO THYROID &
THYROID RELATED DISEASES**

Q.P. Code: 181903

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. 24-year lady presented with a one year history of hyperthyroidism with recent exophthalmos. She was diagnosed with Graves' disease with a clinical activity score of 2/7. Detail the evaluation and management of this patient.
2. A 50-year-old gentleman presented with a 3 year goitre, recent cough with hemoptysis. Imaging revealed a malignant appearing thyroid with tracheal infiltration. Elaborate on the evaluation and management of thyroid carcinoma with aero digestive tract involvement.

II. Write notes on:

(10 x 7 = 70)

1. Autonomous functioning thyroid nodule.
2. Management of recurrent laryngeal nerve injury.
3. Poorly differentiated thyroid carcinoma.
4. Tyrosine kinase inhibitors in thyroid carcinoma.
5. Chyle leak in the neck.
6. Calcitonin and CEA.
7. Prophylactic central compartment neck dissection for papillary thyroid carcinoma.
8. Thyroglossal cyst.
9. Elastography in the assessment of thyroid nodules.
10. Genetic landscape of papillary thyroid carcinoma.
