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

[MD 0524] **MAY 2024** **Sub. Code: 4066**

M.D. DEGREE EXAMINATION

BRANCH XXIII – ANATOMY

PAPER II – EMBRYOLOGY, MICROSCOPIC ANATOMY AND GENETICS

Q.P. Code: 204066

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

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

1. Describe the development of the Axial Skeleton. Add a note on its congenital anomalies.

2. Describe in detail about all types of connective tissue.

II. Write notes on: **(10 x 5 = 50)**

1. Notochord.
2. Micro anatomy of prostate.
3. Turner's syndrome.
4. Hensen's node.
5. Mandibular arch.
6. Aminocentesis.
7. Histology of fallopian tube.
8. Rotation of midgut.
9. Metanephric blastema.
10. Blood testis barrier.

III. Reasoning out: **(4 x 5 = 20)**

State whether each of the following statement is TRUE of FALSE and reason out.

1. Barrett's mucosa is seen at pharyngo oesophageal junction.
2. Neural tube defect is spina bifida occulta.
3. Chorionic villi biopsy is done on the eighth week of intra uterine life.
4. Formation of digit is by Apoptotis.

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

[MD 1224] DECEMBER 2024 Sub. Code: 4066
(OCTOBER 2024 EXAM SESSION)

M.D. DEGREE EXAMINATION

ANATOMY

PAPER II – EMBRYOLOGY, MICROSCOPIC ANATOMY AND GENETICS

Q.P. Code: 204066

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

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

1. Describe the development of face. Add a note on its applied aspects on the anomalies related to it.

2. Describe the microstructure of the organs related to excretory system.

II. Write notes on: **(10 x 5 = 50)**

1. Neural crest formation and derivates.
2. Fallot's tetralogy.
3. Oogenesis.
4. Development of retina.
5. Pedigree chart X-linked recessive inheritance.
6. Development of Tooth.
7. Histology of Trachea.
8. Oncogenes.
9. Freezing microtome.
10. H&E staining.

III. Reasoning out: **(4 x 5 = 20)**
State whether each of the following statement is TRUE or FALSE and reason out.

1. C-cells in thyroid gland are derived from neural crest.
2. Ducts of Von Ebner open into fungiform papillae.
3. Caecum is the first organ to enter the abdomen during midgut rotation.
4. Ovula nabothi form cysts in vagina.

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

[MD 0525] **MAY 2025** **Sub. Code: 4066**

M.D. DEGREE EXAMINATION

ANATOMY

PAPER II – EMBRYOLOGY, MICROSCOPIC ANATOMY AND GENETICS

Q.P. Code: 204066

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

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

1. Describe the development and derivatives of Para Mesonephric duct.
2. Describe the microscopic anatomy of lymphoid tissue.

II. Write notes on: **(10 x 5 = 50)**

1. Development of Ear.
2. Spermatogenesis.
3. Histology of Thymus.
4. Twinning.
5. Paraffin wax.
6. Plastination.
7. Microanatomy of suprarenal gland.
8. Gene therapy.
9. Development of inter atrial septum.
10. Embalming fluids.

III. Reasoning out: **(4 x 5 = 20)**

State whether each of the following statement is TRUE or FALSE and reason out.

1. Spleen develops from the foregut in the ventral mesogastrium.
2. Peg cells are seen in ovary.
3. Pineal gland is an important regulator of circadian rhythm.
4. Anal canal is dual in origin.

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

[MD 1025] **OCTOBER 2025** **Sub. Code: 4066**

M.D. DEGREE EXAMINATION

ANATOMY

PAPER II – EMBRYOLOGY, MICROSCOPIC ANATOMY AND GENETICS

Q.P. Code: 204066

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

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

1. Describe the development of the kidneys and its anomalies.
2. Describe the microscopic structure of respiratory tract.

II. Write notes on: **(10 x 5 = 50)**

1. Development of palate.
2. Organizers.
3. Histology of Retina.
4. Karyotyping.
5. Clearing agents.
6. Preparation of Museum specimens.
7. Prenatal diagnosis.
8. Sex linked inheritance.
9. Histology of Pancreas.
10. Microtomes.

III. Reasoning out: **(4 x 5 = 20)**

State whether each of the following statement is TRUE or FALSE and reason out.

1. Jejunum has Payer's patches in lamina propria.
2. Hassall's corpuscles are present in abundance in fetal thymus.
3. Prostatic utricle is developed from paramesonephric duct.
4. Branchial sinus opens along the midline of neck.

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

[MD 0526] **MAY 2026** **Sub. Code: 4066**

M.D. DEGREE EXAMINATION

ANATOMY

PAPER II – EMBRYOLOGY, MICROSCOPIC ANATOMY AND GENETICS

Q.P. Code: 204066

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

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

1. Describe the development of neural tube and its derivatives.
2. Describe the microscopic anatomy of male genital tract.

II. Write notes on: **(10 x 5 = 50)**

1. Translocation.
2. Genetic counselling.
3. Conjoined twins.
4. Development of Thyroid gland.
5. Development of tongue.
6. Histology of thymus.
7. Histology of Oesophagus.
8. Development of tympanic membrane.
9. Mounting media.
10. Van Gieson's staining.

III. Reasoning out: **(4 x 5 = 20)**

State whether each of the following statement is TRUE or FALSE and reason out.

1. Extraembryonic mesoderm is formed during Gastrulation.
2. Vertebrae are segmental in development.
3. Endothelial layer pumps out fluid from cornea.
4. Intercalated discs are desmosomes.

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