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

[MD 0723] JULY 2023 Sub. Code: 2090

# (MAY 2023 EXAM SESSION)

# M.D. DEGREE EXAMINATION

#### **BRANCH XXIII – ANATOMY**

### PAPER II – EMBRYOLOGY AND GENETICS

O.P. Code: 202090

Time: Three Hours Maximum: 100 Marks

I. Essay:  $(2 \times 15 = 30)$ 

- 1. Write an essay on the Aortic arches and the associated anomalies.
- 2. Describe the development of the Kidneys and anomalies.

II. Short notes:  $(10 \times 5 = 50)$ 

- 1. Development of portal vein.
- 2. Axis arteries of upper and lower limbs.
- 3. Development of ventricles of heart.
- 4. Oogenesis
- 5. Regulator genes.
- 6. Placental barrier
- 7. Derivatives of paraxial mesoderm.
- 8. Suprarenal gland development.
- 9. Super female.
- 10. Twinning.

# **III. Reasoning Out:**

 $(4 \times 5 = 20)$ 

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

- 1. Genes occupy the whole length of the chromosomes including the primary and secondary constrictions.
- 2. The rhombic lip is the dorsolateral expansion of basal lamina of metencephalon.
- 3. The substantia propria of the cornea is developed from the surface ectoderm.
- 4. The first commissure to appear is the corpus callosum in the 3<sup>rd</sup> month of intrauterine life.