

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

**[LR 1220]**

**DECEMBER 2020  
(AUGUST 2020 EXAM SESSION)**

**Sub. Code: 6274**

**BPT DEGREE EXAMINATION  
FIRST YEAR**

**(New regulations for the candidates admitted from 2017-2018 onwards)  
PAPER III – PHYSIOLOGY AND APPLIED PHYSIOLOGY  
Q.P. Code: 746274**

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Describe the countercurrent mechanism of concentration of Urine. Add a note on Diabetes Insipidus.
2. Define Cardiac cycle. Describe the events in various phases with the help of diagrams.

**II. Write notes on:**

**(10 x 5 = 50)**

1. Milk ejection reflex.
2. Hazards of blood transfusion.
3. Ionic events in action potential of nerve.
4. Functions of liver.
5. Hypersecretion of growth hormone.
6. Hormonal changes in various phases of menstrual cycle.
7. Taste pathway.
8. Oxygen hemoglobin dissociation curve.
9. Functions of hypothalamus.
10. Refractive errors of eye.

**III. Short answers on:**

**(10 x 2 = 20)**

1. Difference between primary and secondary active transport.
2. Erythroblastosis fetalis.
3. Motor unit.
4. Functions of large intestine.
5. Hormonal defect in a) Acromegaly b) Cretinism.
6. Reflex arc.
7. State Frank Starling's law of the heart.
8. Define Residual volume, give its clinical significance.
9. Indicators of ovulation.
10. Name the cranial nerves carrying the taste sensation.

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