

21 - 2009

# Physiology

[A] Ans any Five. [15]

- 1) Enumerate the anticoagulants & their use in the laboratory. xxx
- 2) Write the procedure to make Leishman stain in your laboratory. xxx
- 3) List of instrument & chemical required for experiment on frog's heart.
- 4) How would you determine the blood group of the subject.
- 5) What precautions you will take while with drawing a sample of venous blood. xxx
- 6) Draw & label the different waves in normal ECG.
- 7) Name the different parts of compound microscope. xxx

[B] Match the Following. [5]

- |                              |                         |
|------------------------------|-------------------------|
| 1. Parathyroid gland - 4     | 1. Female sex hormone   |
| 2. Receptors for hearing - 5 | 2. Loop of Henle        |
| 3. Estrogen - 1              | 3. increased heart rate |
| 4. Tachycardium - 3          | 4. Tetany               |
| 5. conc. of urine - 2        | 5. Organ of Corti       |

[2] (A) Short notes. [15]

- 1) Functions of Respiratory system
- 2) Basic mechanism of blood coagulation.
- 3) Functions of liver.
- 4) Functions of Brain
- 5) Structure & Function of Heart

True OR False [5]

- 1) RBC count increases in anemia. X
- 2) progesterone is male sex hormone. X
- 3) Loss of pain sensation is known as anaesthesia. ✓
- 4) Structural & functional unit of kidney is nephron. X
- 5) pacemaker of heart is SA node. ✓

23 Fill in blanks. [10]

1. Normal heart rate is 72 beats
2. Normal WBC count is 5000 - 11000 cells/cu
3. Normal blood sugar is 70 - 110 mg/dl
4. Visual receptors are rods and cones
5. Hormones of posterior pituitary gland are vasopressin  
& oxytocin
6. protein is digested by pepsin enzymes in gastric juice  
*proteolytic*
7. Muscle proteins are \_\_\_\_\_ & \_\_\_\_\_
8. Normal cardiac output is 5 liter per minutes
9. Respiratory centre are \_\_\_\_\_ & \_\_\_\_\_
10. Ascending tracts of spinal cord are sensory & afferent

22<sup>nd</sup> - 2010

# Physiology

Q. 1 (A) Ans any five of the following. [15]

1) List the instruments & chemical solutions required for the experiment of "Amphibian nerve & muscle practical." xxx ✓

2) Enumerate the tests for hearing. <sup>281</sup>

3) Write the composition of Turk's fluid. xxx ✓ <sup>62</sup>

4) Draw the diagram of nephron. <sup>172</sup>

5) Enumerate the different methods of Artificial Respiration. xxx <sup>147</sup>

6) How will you take care of microscope? xxx <sup>59</sup>

7) List the instruments and chemical solutions required for the experiment of measurement of B.P in dog. xxx <sup>1100</sup>

B) Match the Following. [5]

1. Spinal cord - 3 Image formation

2. Pancreas - 4 Testosterone

3. Retina - 1 reflex

Cerebellum - 5 Insulin

Mal sex hormone - 2 Equilibrium

Q. 2 (A) Write short notes on any three. [15]

1) Neuron <sup>95</sup>

5) Puberty.

2) Functions of lungs <sup>152</sup>

3) Cardiac cycle <sup>79</sup>

4) ESR <sup>1100</sup>

B) True or False. [5]

Cardiac muscle is an examples of voluntary muscle. X

In hemophilia, clotting time is increased. X ✓

Cross matching is must even if blood groups of donor and recipient are compatible. ✓

• We can survive even if one kidney is removed. ✓

• ~~Testamny~~ <sup>204</sup> is caused by less secretion of thyroid hormone. X

Fill in the blanks: [10]

Normal respiratory rate is 10-40/min or 14-18/min

- Receptors in eye are &
- Erythropoiesis occurs in Bone marrow.
- Smooth muscle are present in visceral.
- Blood pressure is recorded by instrument sphygmomanometer.
- Bile is stored in Gall bladder.
- Receptor for Hearing is cortex.
- Normal tidal volume is 500 ml.
- <sup>0196</sup> posterior pituitary glands secretes vasopressin & oxytocin hormone.
- process of formation of sperm is known as \_\_\_\_\_

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23<sup>rd</sup> - 2011

# Physiology

(20)

Q. 1. Enumerate the functions of following.

- ① Kidney.
- ② Pancreas.
- ③ Testis.
- ④ Stomach.

Q. 2. Match the following.

- |                   |                        |
|-------------------|------------------------|
| 1. Insulin        | 3. Anterior pituitary. |
| 2. Adrenaline     | 4. Thyroid             |
| 3. Growth Hormone | 5. Ovary               |
| 4. Thyroxin       | 1. Pancreas            |
| 5. Progesterone   | 2. Adrenal medulla.    |

Q. 3. Ans any five of the following. [15]

- ① Movements of small intestine
- ② Name six coagulation factors. xxx
- ③ Classification of WBC
- ④ Classification of Nerve fibers. xxx
- ⑤ Name different Respiratory volumes and capacities.
- ⑥ Factors affecting blood pressure

Q. 4. Normal values following [10]

- 1. Serum calcium - 8.5 to 11 mg/dl.
- 2. Different count -
- 3. Body Temperature - 36.5 to 37.5 °C, 96-98 °F.
- 4. RBC count in female - 4.0 to 4.5 mill / cmm of blood.  $3.8-4.8 \times 10^6 / \text{mm}^3$
- 5. Anatomical & physiological Dead space volume - 150 ml
- 6. Glomerular filtration Rate - 125 ml / min or 180 liter / day.
- 7. Radial pulse - 70-72 lack / min. 60-80 pulse beat / minute.
- 8. Platelet count - 1.5 to 5.0 lack / cmm (ul)  $1.5-4.0 \times 10^5 / \text{mm}^3$
- 9. Bleeding time & clotting time BT = 1 to 3 min  $2-5$   $3-8$  min
- 10. Cardiac out put. CT = 4. to 6 min  $5-6$  L / min

Q. 3 Fill in the blanks. [10]

1. Functional & structural unit of Nervous system is Neuron
2. <sup>96</sup> Pace maker of heart is sA Node
3. Normal blood sugar level, fasting & post prandial is 70-110  
& Chymotrypsin RBS - < 200 mg/dl
4. Protein digesting enzymes present in pancreatic juice are Trypsin & Chymotrypsin
5. Dietary mineral iodine is essential for synthesis of thyroid hormones. ion
6. Respiratory centers are present in Brain stem & Cerebral cortex
7. Muscle proteins are Myosin & Actin
8. <sup>69</sup> During adult life red blood cell formation occurs in Bone marrow
9. Emptying of urinary bladder is a function of Micturition reflex.
10. Ascending tracts of spinal cord carry Fine touch & vibration sensations