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No. of Printed Pages: 02

(A12)

SARDAR PATEL UNIVERSITY

M. Sc. (Integrated) Biotechnology – Sixth Semester Examination

Saturday, 2nd May, 2015

2:30 p.m. to 5:30 p.m.

PS06CIGB06: ANIMAL PHYSIOLOGY

Note: 1) Figures to the right indicate marks

2) Draw diagram wherever necessary

Total marks: 70

Q - 1 Choose the most appropriate alternative for the following: (08)

- Salivary amylase secreted into the oral cavity, starts the digestion of _____.
a) proteins b) lipids
c) starch d) amino acids
- Which digestive organ mechanically and chemically transforms a food bolus into chyme?
a) Esophagus b) Stomach
c) Small intestine d) Large Intestine
- Which of the following are granulocytes?
a) Monocytes b) Erythrocytes
c) Neutrophils d) Platelets
- The substance that delay, suppresses or prevents blood clotting is called _____.
a) coagula b) agglutinin
c) agglutino-gen d) anticoagulant
- _____ organelle is absent in mature neurons.
a) mitochondria b) ER
c) ribosome d) centriole
- Resting membrane potential of neuron is _____.
a) -55mV b) -70mV
c) -90mV d) +30mV
- The following structures are components of the Urinary system except _____.
a) Nephron b) Urethras
c) Ureters d) Gall bladder
- Which of the following is NOT strictly a tropic hormone?
a) Growth hormone b) Follicle stimulating hormone
c) Thyroid stimulating hormone d) Luteinizing hormone

Q - 2 Attempt ANY SEVEN from the following: (14)

- Write the composition and functions of saliva.
- Define the term deglutition and write the phases of it.
- Give names of blood clotting factors.
- Narrate about the blood vessels.
- Define neurotransmitter with examples.
- Draw and label the diagram of Neuron.
- Enlist the functions of kidneys
- Where is the Juxtaglomerular apparatus located and what is its role in renal physiology?
- Which gland maintains biological clock of body? Write the location of this gland.

- Q-3 (a) Write an explanatory note on gastric digestion. (06)
(b) Describe the process of absorption in small intestine. (06)
OR
(b) Explain the structure and functions of liver. (06)
- Q-4 (a) Explain the mammalian heart with suitable diagram. (06)
(b) Describe the blood clotting mechanism. (06)
OR
(b) Write an explanatory note on cellular components of blood. (06)
- Q-5 (a) Discuss the physiology of impulse conduction through the chemical synapse. (06)
(b) (i) Explain physiological types of neuron. (03)
(ii) Write the functions of cerebrum. (03)
OR
(b) Explain action potential in neuron. (06)
- Q-6 (a) Describe the types and structure of nephron. (06)
(b) Give a detailed account on Adrenal gland. (06)
OR
(b) (i) Write a note on filtration membrane. (03)
(ii) Write the synthesis and functions of thyroid hormones. (03)
