

2006 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

IV B.TECH II SEMESTER SUPPLEMENTARY EXAMINATIONS

NEUROBIOLOGY AND COGNITIVE SCIENCE
(BIO-TECHNOLOGY)

APRIL / MAY 2006

TIME: 3 HOUR
MARK: 80

ANSWER ANY FIVE QUESTIONS ALL QUESTIONS CARRY EQUAL MARKS

1. Describe the central nervous system with the help of a diagram and explain the major functions of central nervous system.
2. 'Neuron is the functional unit of the nervous system' - Explain.
3. Define synapse and explain the presynaptic and post synaptic neurons and their direction of nerve impulse transmission.
4. Describe the specialized or associated cells in the central and peripheral nervous system other than neurons and explain their functions.
5. Write short notes on the following:
 - (a) Presynaptic and post synaptic neurons difference
 - (b) Axon
 - (c) Action potential
 - (d) Neuro transmitters.
6. Describe the genetic basis of neurological disorders.
7. (a) What is a sensory receptor and what are the types of sensory receptors based on location.
(b) Explain the conduction of impulses by neurons.
8. Discuss the neuronal response and animal behaviour in various environments.