



**B.TECH DEGREE EXAMINATIONS: APRIL 2015**

(Regulation 2009)

Eighth Semester

**BIOTECHNOLOGY**

BTY213 : Neurobiology and Cognitive Sciences

**Time: Three Hours**

**Maximum Marks: 100**

**Answer all the Questions:-**

**PART A (10 x 1 = 10 Marks)**

- The theta waves of the brain have a frequency of ..... Hz
  - 4 - 7
  - 8 - 13
  - 4 - 8
  - 8 - 12
- Which of the following acts as marker during circadian rhythms of sleep?
  - Keratin
  - Methionine
  - Melanonin
  - Melatonin
- Which ion Contration will be increased in the axoplasm during resting potential?
  - Na<sup>+</sup>
  - K<sup>+</sup>
  - Ca<sup>2+</sup>
  - Mg<sup>2+</sup>
- Starting material for the serotonin synthesis is .....
  - Tryptophan
  - Proline
  - Methionine
  - Alanine
- ..... Is a acetyl choline receptor agonist.
  - Alcohol
  - Nicotine
  - LSD
  - Opine
- Neurotransmitters takes ..... for receptor binding on postsynaptic cells.
  - 5 ms
  - 1 ms
  - 100 ms
  - 0.5 ms
- \_\_\_\_\_ is an example for motor binding protein
  - Ricin
  - Spectrin
  - Calmodulin
  - Natokinin



23. a) Discuss the mechanism of synaptic transmission.

**(OR)**

b) Illustrate the hypothalamic control of the neuronal function.

24. a) Outline the basic mechanism of touch and pain based sensation.

**(OR)**

b) Comprehend the mechanism of vision and audition with suitable examples.

25. a) Examine the regulation of sleep and memory on the basis of human behavior.

**(OR)**

b) Compile the disorders associated with nervous system and their treatment methods.

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