

National Board of Examinations

Question Paper Name : DNB Physiology Paper1

Is this Group for Examiner? : No

Enable Mark as Answered Mark for Review and Clear Response : Yes

Question Number : 1 Question Type : SUBJECTIVE

Define motor unit. Tabulate seven differences between red and white muscle fibres. Give two examples each of single unit and multiunit smooth muscles in the human body. [1+7+2]

Question Number : 2 Question Type : SUBJECTIVE

Define Homeostasis. Describe various mechanisms involved in the process of Homeostasis. Name the homeostatic mechanism which is sometimes known as "vicious cycle" and explain the same with the help of an appropriate example. [1+5+2+2]

Question Number : 3 Question Type : SUBJECTIVE

Compare and contrast important electrical and mechanical properties between skeletal muscle and cardiac muscle. [5+5]

Question Number : 4 Question Type : SUBJECTIVE

Define osmosis and osmotic pressure. Describe the physiological significance and clinical significance of the same. [(1+1)+4+4]

Question Number : 5 Question Type : SUBJECTIVE

Define Nernst Potential. Compare and contrast generator potential and action potential. Draw a

well labelled diagram of and describe the effect of subthreshold anelectronic and catelectronic currents on the membrane of an excitable tissue. [2+5+3]

Question Number : 6 Question Type : SUBJECTIVE

Describe the role of Neurotrophins in neural physiology. Enumerate four important neurotrophins. Briefly describe two clinical conditions arising due to deficiency of some neurotrophins. [5+2+3]

Question Number : 7 Question Type : SUBJECTIVE

Describe Erlanger and Gasser's Classification of nerve fibres. Draw a well labelled diagram of compound action potential. Define "All or none law " and its applicability to a mixed nerve. [5+2+3]

Question Number : 8 Question Type : SUBJECTIVE

Define Apoptosis. Discuss various mechanisms and physiological importance of Apoptosis. [2+(4+4)]

Question Number : 9 Question Type : SUBJECTIVE

Describe contribution of A F Huxley and A L Huxley in the field of medicine and physiology. [5+5]

Question Number : 10 Question Type : SUBJECTIVE

Draw a well labelled diagram of Mitochondria. Describe its functions, historical significance and DNA peculiarity. [3+3+2+2]