National Board of Examinations

Question Paper Name :	DNB Physiology Paper1
Subject Name :	DNB Physiology Paper1
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Actual Answer Key :	No

DNB Physiology Paper1

Group Number :	1
Group Id :	3271872028
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Group Marks :	100
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

DNB Physiology Paper1

Section Id :	3271872031
Section Number :	1
Section type :	Offline

Mandatory or Optional :	Mandatory
Number of Questions to be attempted :	10
Section Marks :	100
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	3271872035
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 1 Question Id : 32718726783 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Please write your answers in the answer booklet within the allotted pages as follows:-

Question Number	Answer to be attempted within	Question Number	Answer to be attempted within
Q. 1	Page 1-5	Q. 6	Page 26-30
Q. 2	Page 6-10	Q. 7	Page 31-35
Q. 3	Page 11-15	Q. 8	Page 36-40
Q. 4	Page 16-20	Q. 9	Page 41-45
Q. 5	Page 21-25	Q. 10	Page 46-50

1. Define Homeostasis. Describe various mechanisms involved in maintaining homeostasis in human body with appropriate examples. [2+8]

Question Number : 2 Question Id : 32718726784 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

a) Mitochondria. [4]

b) Peroxisomes. [3]

c) Proto-oncogenes. [3]

Question Number : 3 Question Id : 32718726785 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Compare and Contrast:

a) Voltage-gated ion channels and Ligand-gated ion channels. [5]

b) Phase Contrast Microscopy and Electron Microscopy. [5]

Question Number : 4 Question Id : 32718726786 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Discuss the genesis of resting membrane potential in a cell. [10]

Question Number : 5 Question Id : 32718726787 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Describe the role of intracellular Ca^{2+} as a second messenger. Explain the mechanisms responsible for diversity of Ca^{2+} actions. [6+4]

Question Number : 6 Question Id : 32718726788 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

a) Briefly explain the role of cytokines in regulating the immune responses. [5]

b) Explain the genetic basis of diversity in the immune system. [5]

Question Number : 7 Question Id : 32718726789 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Correct Marks : 10

Enumerate the factors that determine the conduction velocity of a nerve fiber. Discuss the mechanisms by which they affect the conduction velocity of the nerve fibre. Add a note on H-reflex. [3+5+2]

Question Number : 8 Question Id : 32718726790 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Discuss the following statement with examples, “Essential fatty acids are necessary for the health of an individual”. Add a note on the role of cholesterol in the etiology and course of atherosclerosis. [6+4]

Question Number : 9 Question Id : 32718726791 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Define the term " Metabolic Syndrome". Describe the signs and symtoms of Metabolic Syndrome. [3+7]

Question Number : 10 Question Id : 32718726792 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

a) Contribution of A.S. Paintal in the field of Respiratory Physiology. [5]

b) Early clinical exposure as introduced in competency based undergraduate medical education. [5]