National Board of Examinations

Question Paper Name :	DNB Physiology Paper1
Subject Name :	DNB Physiology Paper1
Creation Date :	2021-08-25 17:09:04
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DNB Physiology Paper1

Group Number :	1
Group Id :	327187231
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100
Is this Group for Examiner? :	No

DNB Physiology Paper1

Section Id :	327187234
Section Number :	1
Section type :	Offline
Mandatory or Optional :	Mandatory

Number of Questions :	10
Number of Questions to be attempted :	10
Section Marks :	100
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	327187238
Question Shuffling Allowed :	No

Question Number : 1 Question Id : 327187830 Question Type : SUBJECTIVE

Correct Marks : 10

a) What is steady-state balance? [2]

b) Using water balance as an example, describe the elements that are needed to achieve steady-state balance in humans. [8]

Question Number : 2 Question Id : 327187831 Question Type : SUBJECTIVE

Correct Marks : 10

a) Physiological basis of training in various categories of sporting events. [7]

b) Add a note on the practice of doping in sports. [3]

Question Number : 3 Question Id : 327187832 Question Type : SUBJECTIVE

Correct Marks : 10

Describe the physiological principles underlying functional neuroimaging techniques that are used for diagnostic purposes. [10]

Question Number : 4 Question Id : 327187833 Question Type : SUBJECTIVE

Correct Marks : 10

Describe the various forces acting on ions across the cell membrane. [10]

Question Number : 5 Question Id : 327187834 Question Type : SUBJECTIVE

Correct Marks : 10

a) Classify the types of nuclear receptors. [2]

b) Explain how different classes of nuclear receptors regulate gene expression. [8]

Question Number : 6 Question Id : 327187835 Question Type : SUBJECTIVE

Correct Marks : 10

a) Define integral membrane proteins. [2]

b) Describe their association with the lipid bilayer. [5]

c) Explain with relevant examples the significance of integral membrane proteins as adhesion molecules. [3]

Question Number : 7 Question Id : 327187836 Question Type : SUBJECTIVE

Correct Marks : 10

a) Describe the types of intercellular communications that are mediated by chemical messengers in the extracellular fluid. [5]

b) Explain the role of calcium as a second messenger. [5]

Question Number : 8 Question Id : 327187837 Question Type : SUBJECTIVE

Correct Marks : 10

a) Compare and contrast innate and acquired immunity. [5]

b) Describe the role of cytokines in regulation of immune response. [5]

Question Number : 9 Question Id : 327187838 Question Type : SUBJECTIVE

Correct Marks : 10

a) Significance of animal models in evolution of medicine. [5]

b) Nobel prize for discoveries of molecular mechanisms controlling circadian rhythm. [5]

Question Number : 10 Question Id : 327187839 Question Type : SUBJECTIVE

Correct Marks : 10

a) What is randomization? [3]

b) Describe the types of randomization used in research studies. [4]

c) Add a note on blinding in research. [3]