National Board of Examinations

Question Paper Name :	DNB Physiology Paper1
Subject Name :	DNB Physiology Paper1
Creation Date :	2023-10-15 14:12:06
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Actual Answer Key :	No

DNB Physiology Paper1

Group Number :	1
Group Id :	3271872578
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 :	3271872581
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 :	3271872585
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 1 Question Id : 32718726263 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 resting membrane potential (RMP). Describe the genesis of RMP. Explain why the resting membrane potential of most cells is close to the Nernst potential for K^+. [1+6+3]

Question Number : 2 Question Id : 32718726264 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Explain why ATP is considered as the “energy currency” of living systems. [10]

Question Number : 3 Question Id : 32718726265 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 how second messengers both regulate and amplify signal transduction. [6+4]

Question Number : 4 Question Id : 32718726266 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) Membrane pores. [4]

b) Rafts and Caveolae. [3]

c) Oncotic pressure. [3]

Question Number : 5 Question Id : 32718726267 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) Primary and Secondary immune response. [3]

b) Lysosomes and Proteasomes. [3]

c) Electrical synapse and chemical synapse. [4]

Question Number : 6 Question Id : 32718726268 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Write briefly on the contributions of:

a) Claude Bernard in the field of physiological science. [5]

b) J.W. Papez in the field of affective neuroscience. [5]

Question Number : 7 Question Id : 32718726269 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 functional and physio-clinical relevance of cytokines. [5+5]

Question Number : 8 Question Id : 32718726270 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 phases, events and significance of somatic cell division. Add a note on programmed cell death. [7+3]

Question Number : 9 Question Id : 32718726271 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 briefly the physio-clinical significance of:

a) Neuronal transport. [3]

b) Refractory period in excitable tissues. [3]

c) Genetic basis of diversity in the immune system. [4]

Question Number : 10 Question Id : 32718726272 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) AETCOM in phase I of MBBS. [5]

b) Biomedical waste management. [5]