

National Board of Examinations

Question Paper Name :	DrNB Clinical Immunology and Rheumatology Paper1
Subject Name :	DrNB Clinical Immunology and Rheumatology Paper1
Creation Date :	2022-06-25 17:18:32
Duration :	180
Share Answer Key With Delivery Engine :	No
Actual Answer Key :	No

DrNB Clinical Immunology and Rheumatology Paper1

Group Number :	1
Group Id :	3271871225
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
Examiner permission :	Cant View
Show Progress Bar? :	No

DrNB Clinical Immunology and Rheumatology Paper1

Section Id :	3271871228
---------------------	------------

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 : 3271871232
Question Shuffling Allowed : No

Question Number : 1 Question Id : 32718711302 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

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. a) Enumerate different types of B lymphocytes and compare their functional roles. [6]
- b) Describe the antibody independent functions of B cells. [4]

Question Number : 2 Question Id : 32718711303 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Describe the pharmacokinetics of oral methotrexate in the context of its efficacy as a DMARD and its toxicity. [5]
- b) Describe the mechanism of action of methotrexate as a DMARD. [3]
- c) Mechanism of methotrexate induced nausea. [2]

Question Number : 3 Question Id : 32718711304 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Describe the microscopic structure of articular cartilage with a diagram. [3]
- b) Describe the molecular mechanism of cartilage loss in osteoarthritis. [7]

Question Number : 4 Question Id : 32718711305 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Compare and contrast blinding and concealment in randomised controlled trials. [3]
- b) What are the advantages and disadvantages of permuted block randomisation over simple randomisation? [3]
- c) Compare and give one example each of type I error and type II error in clinical trials. [4]

Question Number : 5 Question Id : 32718711306 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Describe the origin and phenotype of regulatory T cells. [5]
- b) Mechanism of immune suppression by regulatory T cells. [5]

Question Number : 6 Question Id : 32718711307 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Describe the mechanisms of action of glucocorticoids. [6]
- b) Describe the principles and evidence for chronotherapy. [4]

Question Number : 7 Question Id : 32718711308 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

- a) Explain the metabolism of Cyclophosphamide using a diagram. [4]

b) Discuss the role of Pharmacogenetics in the efficacy and toxicity of Cyclophosphamide. [6]

Question Number : 8 Question Id : 32718711309 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

a) Describe the classical pathway of complement activation with the help of a diagram. [5]

b) Describe the role of complement in Immune complex clearance. [5]

Question Number : 9 Question Id : 32718711310 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

a) What are checkpoint inhibitors. [5]

b) Discuss autoimmune diseases after cancer therapy. [5]

Question Number : 10 Question Id : 32718711311 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

a) What is microbiome? [2]

b) How are microbiomes studied? [3]

c) Describe the role of microbiome in autoimmune rheumatic diseases with examples. [5]