

National Board of Examinations

Question Paper Name :	DrNB Clinical Immunology and Rheumatology Paper1
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DrNB Clinical Immunology and Rheumatology Paper1

Group Number :	1
Group Id :	3271872456
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

DrNB Clinical Immunology and Rheumatology Paper1

Section Id :	3271872459
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 : 3271872463
Question Shuffling Allowed : No
Is Section Default? : null

Question Number : 1 Question Id : 32718724793 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. a) Write mechanism of action of methotrexate in inflammatory arthritis. [5]
 b) Discuss the evidence, risk factors and algorithm for screening methotrexate induced hepatotoxicity. [2+1+2]

Question Number : 2 Question Id : 32718724794 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) Describe IL17/IL23 axis with the help of a diagram in psoriatic arthritis. [4]

- b) Write briefly on cellular sources of IL17 mediating gut-joint IL17-23 axis. [3]
- c) What are the therapeutic agents targeting IL17/IL 23 axis in enteropathic arthritis? [3]

Question Number : 3 Question Id : 32718724795 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) Describe briefly regulatory factors involved during various stages of chondrogenesis. [3]
- b) Discuss comparatively the culture models for studying articular chondrocytes. [3]
- c) Describe diagrammatically the factors in the synovium, cartilage, and bone which are involved in the osteoarthritic process. [4]

Question Number : 4 Question Id : 32718724796 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) Discuss diagrammatically the routes to differentiation of tissue fibroblasts. [4]
- b) Classify and describe the various signalling pathways activated in fibroblasts. [6]

Question Number : 5 Question Id : 32718724797 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) Classify the pattern recognition receptors (PRR). [1]
- b) Discuss the examples, sites, ligands and functions of various PRR. [3+3+3]

Question Number : 6 Question Id : 32718724798 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) Describe the human B Cell surface markers during various stages of B cell development. [5]

b) Discuss the phenotypic markers, origin and functions of transitional B cells. [5]

Question Number : 7 Question Id : 32718724799 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) Discuss the mechanisms of epigenetic regulation of immune system. [4]

b) Elaborate on the targets of epigenetic modification in systemic lupus erythematosus. [6]

Question Number : 8 Question Id : 32718724800 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) Define autophagy. [1]

b) List the types of autophagy. [2]

c) Describe with the help of a diagram the mechanism of autophagy. [7]

Question Number : 9 Question Id : 32718724801 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) Define biomarkers and write their categorization. [2]

b) What are the measures of performance and accuracy of biomarkers? [2]

c) What are the prerequisites for introduction of a biomarker in clinical practice? [3]

d) Write the biomarkers of bone formation and resorption. [3]

Question Number : 10 Question Id : 32718724802 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) Describe in brief three important functions of complement system in health. [6]

b) How is complement activation measured? [2]

c) Discuss the role of complements in ANCA associated vasculitis. [2]