

National Board of Examinations

Question Paper Name :	DrNB Clinical Immunology and Rheumatology Paper1
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Actual Answer Key :	No

DrNB Clinical Immunology and Rheumatology Paper1

Group Number :	1
Group Id :	3271871918
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 :	3271871921
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 : 3271871925
Question Shuffling Allowed : No
Is Section Default? : null

Question Number : 1 Question Id : 32718725623 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. Regarding methotrexate in rheumatoid arthritis:

- Describe the adverse effects of methotrexate and their management. [5]
- Discuss with evidence the relationship between methotrexate and interstitial lung disease in rheumatoid arthritis. [2]
- What are the recommended modifications for administration of methotrexate before or during pregnancy, lactation and vaccination? [3]

Question Number : 2 Question Id : 32718725624 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Correct Marks : 10

Regarding post translational modification in autoimmune rheumatic diseases:

- a) Discuss with examples the importance of post translational modifications in autoimmune rheumatic diseases. [3]
- b) Describe with diagram proteasome-ubiquitin machinery. [4]
- c) Write a note on the inflammatory rheumatic diseases associated with disorder in ubiquitin machinery. [3]

Question Number : 3 Question Id : 32718725625 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Fibroblasts are important drivers of disease in rheumatoid arthritis:

- a) Describe the phenotypic and functional characteristics of fibroblast like synoviocytes in normal individuals. [3]
- b) Discuss the changes in fibroblasts like synoviocytes in rheumatoid arthritis. [4]
- c) Write briefly about metabolic reprogramming of fibroblasts in rheumatoid synovium. [3]

Question Number : 4 Question Id : 32718725626 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Regarding the use of pregabalin in rheumatology:

- a) Mechanism of action of pregabalin. [3]
- b) Enlist the indications for use of pregabalin in rheumatic diseases. [4]
- c) Discuss the toxicity of pregabalin. [3]

Question Number : 5 Question Id : 32718725627 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Regarding signalling pathways in rheumatoid arthritis:

- a) Describe with diagram - cytokine receptor and their signalling pathways. [6]
- b) ORAL surveillance study. [4]

Question Number : 6 Question Id : 32718725628 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Regarding outcome measures and disease monitoring in Scleroderma:

- a) Discuss the blood biomarkers for Scleroderma associated interstitial lung disease. [6]
- b) Composite outcome measures in Scleroderma. [4]

Question Number : 7 Question Id : 32718725629 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Neutrophils function in normal and diseased:

- a) Write briefly on components of various neutrophil granules. [4]
- b) Enlist the heritable disorders characterised by neutrophil dysfunction along with the underlying defect. [3]
- c) What are the non-phagocytic mechanisms of neutrophil action? [3]

Question Number : 8 Question Id : 32718725630 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

In autoimmune diseases there is a breach in immune tolerance:

- a) Describe the central and peripheral tolerance mechanisms in B cells and T cells with diagram. [7]
- b) Describe in brief immunological side effects of checkpoint inhibitors. [3]

Question Number : 9 Question Id : 32718725631 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

B cells in SLE:

- a) Mention the aberrations in B cell subsets in systemic lupus erythematosus. [4]
- b) Write briefly on double negative B cells. [3]
- c) Discuss the therapies targeting plasma cells in patients with SLE. [3]

Question Number : 10 Question Id : 32718725632 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Ultrasound is being increasingly used by Rheumatologists for diagnostic and therapeutic purposes:

- a) Describe some common artifacts seen in ultrasonography. [4]
- b) Describe the role of ultrasonography in establishing diagnosis, monitoring and predicting outcome in polymyalgia rheumatica. [6]