

National Board of Examinations

Question Paper Name :	DrNB Clinical Immunology and Rheumatology Paper1
Subject Name :	DrNB Clinical Immunology and Rheumatology Paper1
Creation Date :	2025-01-17 20:02:59
Duration :	180
Total Marks :	100
Display Marks:	No
Share Answer Key With Delivery Engine :	No
Actual Answer Key :	No

DrNB Clinical Immunology and Rheumatology Paper1

Group Number :	1
Group Id :	3271872711
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100

DrNB Clinical Immunology and Rheumatology Paper1

Section Id :	3271872714
Section Number :	1
Section type :	Offline
Mandatory or Optional :	Mandatory
Number of Questions :	10
Number of Questions to be attempted :	10
Section Marks :	100
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	3271872718
Question Shuffling Allowed :	No

Question Number : 1 Question Id : 32718736404 Question Type : SUBJECTIVE Consider As

Subjective : Yes

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) Describe the structure and function of normal synovium. [2+1]

b) Describe the synovial intimal cells and immunohistochemical profile of synovial cells in health and disease. [3+4]

Question Number : 2 Question Id : 32718736405 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Draw a schematic diagram of nociceptive pathway. Describe the various mechanisms of peripheral and central pain sensitization, and the potential therapeutic implications. [3+(4+3)]

Question Number : 3 Question Id : 32718736406 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Enumerate the various CD4+ T Helper cell subtypes. Describe their characteristics based on polarizing cytokines, key transcription factors and effector cytokines. Describe the role of T-reg cells in maintenance of peripheral tolerance. [3+4+3]

Question Number : 4 Question Id : 32718736407 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Describe the complement pathway with special reference to therapeutic targets in Rheumatology. [5+5]

Question Number : 5 Question Id : 32718736408 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

What are 'omics' studies? What are the technologies used to evaluate metabolomics? Discuss the role of metabolomics in Rheumatology. [2+3+5]

Question Number : 6 Question Id : 32718736409 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Describe the various emerging therapies targeting B cells with the help of a schematic diagram. [6+4]

Question Number : 7 Question Id : 32718736410 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Explain the concepts of placebo and nocebo in Rheumatology. What are the possible mechanisms of nocebo effects? What are the risk factors for nocebo, illustrate with examples. [2+3+5]

Question Number : 8 Question Id : 32718736411 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Epidemiological Investigation of RA (EIRA) study was conducted to investigate the influence of environmental factors on the risk of developing rheumatoid arthritis. 679 patients with rheumatoid arthritis were compared with 847 individuals randomly selected from the population for smoking status. The incidence of RA in current smokers, ex-smokers and ever-smokers, respectively, was compared with that of never-smokers.

- a) What study design was it? [1]
- b) What sampling technique would be appropriate for such a study? [2]
- c) What are the potential biases? [2]
- d) What is the measure of effect calculated in such a study? [1]
- e) Enumerate the pros and cons of this study design. [4]

Question Number : 9 Question Id : 32718736412 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Describe the mechanism of action of pulse glucocorticoid therapy. Discuss the concept of Glucocorticoid Toxicity Index (GTI) with special reference to the ADVOCATE trial. [3+(4+3)]

Question Number : 10 Question Id : 32718736413 Question Type : SUBJECTIVE Consider As Subjective : Yes

Correct Marks : 10

Discuss the role of IL-6 in health and disease. What are the indications of IL-6 inhibitors in Rheumatology? Describe the mechanism of action of Tocilizumab and its adverse effects. [3+3+(2+2)]