

RHEUMATOLOGY
PAPER-I

Time: 3 hours
Max. Marks:100

RHM/J/20/43/I

Important Instructions:

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

Write short notes on:

1. What are adipokines? Name 4 adipokines? How does obesity contribute to inflammation in rheumatoid arthritis? 2+2+6
2. Draw a diagram of IL-23/ IL-17 cytokine pathway. What is its pathogenetic and therapeutic relevance in rheumatic diseases. 3+3+4
3. How is synovial fluid produced? What are its major constituents? How do you analyze synovial fluid to differentiate different types of arthritis? 3+3+4
4. Discuss mechanisms of action of these 3 drugs as immunosuppressants: 3+4+3
 - a) Cyclophosphamide.
 - b) Hydroxychloroquine.
 - c) Mycophenolate mofetil.
5. What is the principle of Dual Energy X-Ray absorptiometry? What is its utility in medical practice? 5+5
6. What is logistic regression analysis? Write its type and uses. 2+5+3
What is the difference between logistic regression and linear regression?
7. Discuss B cell development. What is the mechanism of action of Rituximab (Anti-CD20 antibody)? What is the basis of relapse of a rheumatic disease following B cell depletion therapy? 3+4+3
8. Discuss different types of antigen presenting cells. Discuss the dendritic cell based therapy of arthritis. 5+5
9. Name five viruses commonly causing arthritis. What are the various mechanisms by which viruses can cause arthritis? 3+7
10. What is the difference in the anatomy of small, medium and large blood vessels? Draw a line diagram of these three different blood vessels. How do you classify vasculitis? 4+3+3
