

1. Modifying factors are defined as those factors that alter the nature or course of the inflammatory lesion. These factors do not cause the disease but rather modify the chronic inflammatory response, which, in turn, is determined by the nature of the innate and adaptive immune responses and the local cytokine and inflammatory mediator networks. As treatment planning in periodontics requires an understanding of the etiology and pathogenesis of the periodontal diseases, it is important for all modifying factors to be taken into account. Please describe risk factors that may modify the innate and adaptive immune responses in periodontal diseases and their treatment implications. (30%)
2. The key to achieving pleasing esthetics in implant dentistry is a thorough understanding of the biological processes driving dimensional bone and soft tissue alterations post-extraction. Please describe (1) Dimensional bone and soft tissue alterations in single tooth extraction sites of the anterior maxilla (2) Clinical recommendations regarding dimensional bone and soft tissue alterations. (30%).
3. There is growing evidence that the low-grade, chronic, systemic inflammation observed in aging is an important risk factor for both morbidity and mortality in elderly people, and it may be potentiated by products produced by the periodontal microbiota. Please describe the subgingival periodontal microbiota of the aging mouth. (10%).
4. Please describe theoretical mechanisms by which periodontal disease may influence systemic inflammation (e.g. atherosclerosis). (10%).
5. Please describe the similarity and differences of histopathology and pathogenesis between periodontitis and peri-implantitis together with their treatment implications. (20%).