

**The West Bengal University of Health Sciences**  
**M.D. (Anaesthesiology) May - June, 2022 Examination**

Paper: I

Full Marks: 100  
Time: 3 Hours*Attempt all questions*

1. Anatomy of coronary circulation with a well labelled diagram. What is coronary perfusion pressure? Mention the factors regulating coronary perfusion pressure. 5+2+3
2. Anatomy of Brachial Plexus with a well labelled diagram. What are the strategies to reduce phrenic nerve palsy in regional anaesthesia in shoulder surgery? 6+4
3. What is significance of autonomic neuropathy in diabetes mellitus? How can it be assessed? 5+5
4. Circle of Willis and its importance in anaesthesia practice. 10
5. Describe briefly the safety features in modern anaesthesia machines. Discuss various features that prevent the delivery of hypoxic gas mixtures. 6+4
6. Describe the pharmacokinetics and pharmacodynamics of etomidate. Describe briefly its role in clinical practice. 6+4
7. Discuss the clinical manifestations of local anaesthetic toxicity and its management. 5+5
8. Enumerate the different types of arrhythmias encountered in the intraoperative period. Discuss the causes and management. 4+3+3
9. What are the causes of hypercarbia during the intraoperative period? Discuss the effects and management. 3+3+4
10. What is ASA physical status classification? Briefly describe other factors that may alter the risk associated with anaesthesia. 4+6