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The West Bengal University of Health Sciences
D.M. (Cardiac Anesthesiology) Examination, November- December 2021

Full Marks : 100

Time : 3 hours

Paper : I

Attempt all questions. All Questions carry 10marks each.

1. Describe the mechanism of flow of ion through ion channels for cardiac electrical excitability. 10
2. Write short notes on potential therapies for prevention of inflammation related complications of cardiopulmonary bypass. 10
3. Write short notes on G-protein couple receptors. 10
4. Discuss in brief on adenosine signalling. 10
5. Write short note on possible role of genetic factors combined with peri-operative insults in post surgical anaesthetic outcomes. 10
6. Discuss on the treatment protocol of different stages of heart failure recommended by ACCF / AHA guideline 2013. 10
7. Write short notes on: 5+5
 - a) Vernakalant
 - b) Natural frequency and damping coefficient for pressure measurement system
8. Write short notes on: 5+5
 - a) Fick principal
 - b) Bio impedance and Bio reactance technology
9. Describe echocardiographic techniques used to estimate intracardiac and intravascular pressure gradients. 10
10. Write short notes on physiologic basis of electroencephalography. 10