

National Board of Examinations

Question Paper Name :	DrNB Cardiac Anaesthesia Paper1
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Actual Answer Key :	No

DrNB Cardiac Anaesthesia Paper1

Group Number :	1
Group Id :	3271871379
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Group Marks :	100
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

DrNB Cardiac Anaesthesia Paper1

Section Id :	3271871382
Section Number :	1
Section type :	Offline

Mandatory or Optional : Mandatory

Number of Questions to be attempted : 10

Section Marks : 100

Enable Mark as Answered Mark for Review and Clear Response : Yes

Maximum Instruction Time : 0

Sub-Section Number : 1

Sub-Section Id : 3271871386

Question Shuffling Allowed : No

Is Section Default? : null

Question Number : 1 Question Id : 32718712862 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

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) Enumerate the various methods used for noninvasive cardiac output measurement. [4]
- b) Describe the pulse contour analysis in detail. [6]

Question Number : 2 Question Id : 32718712863 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

- a) What are the determinants of coronary blood flow? [5]
- b) What is fractional flow reserve? How is it measured? [3+2]

Question Number : 3 Question Id : 32718712864 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

- a) Draw a self-explanatory diagram of the normal pressure-volume loop. [4]
- b) How does it look in mitral stenosis and aortic regurgitation? (only diagram). [3+3]

Question Number : 4 Question Id : 32718712865 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

- a) Enumerate various modalities of neurological monitoring used in cardiac surgery. [4]
- b) Describe the principle of Near infra-red spectroscopy (NIRS) and its importance as an intraoperative monitor. [2+4]

Question Number : 5 Question Id : 32718712866 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Describe various techniques to prevent/minimize blood transfusion in pediatric cardiopulmonary bypass management. [10]

Question Number : 6 Question Id : 32718712867 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Briefly describe the protamine reactions post CPB. [10]

Question Number : 7 Question Id : 32718712868 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Correct Marks : 10

What are various safety mechanisms in heart-lung machine? [10]

Question Number : 8 Question Id : 32718712869 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

Related to pulmonary artery catheter (Swan-Ganz catheter):

- a) Enumerate parameters obtained using pulmonary artery catheter and mention normal value ranges to each parameter. [4]
- b) What are the contraindications of pulmonary artery catheter? [2]
- c) What are the probable complications while securing pulmonary artery catheter? [4]

Question Number : 9 Question Id : 32718712870 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

- a) Enumerate reasons of low venous return to reservoir while going on cardiopulmonary bypass. [4]
- b) How will you manage massive cerebral arterial gas embolism during cardio pulmonary bypass? [6]

Question Number : 10 Question Id : 32718712871 Question Type : SUBJECTIVE Consider As Subjective : Yes Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 10

- a) Which factors influence hypoxic pulmonary vasoconstriction? [4]
- b) What are the concerns of hypoxic pulmonary vasoconstriction during lung surgery? [6]