

# National Board of Examinations

<b>Question Paper Name :</b>	DrNB Neuro Anaesthesia Paper1
<b>Subject Name :</b>	DrNB Neuro Anaesthesia Paper1
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## DrNB Neuro Anaesthesia Paper1

<b>Group Number :</b>	1
<b>Group Id :</b>	327187364
<b>Group Maximum Duration :</b>	0
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<b>Show Attended Group? :</b>	No
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<b>Break time :</b>	0
<b>Group Marks :</b>	100
<b>Is this Group for Examiner? :</b>	No

## DrNB Neuro Anaesthesia Paper1

<b>Section Id :</b>	327187367
<b>Section Number :</b>	1
<b>Section type :</b>	Offline
<b>Mandatory or Optional :</b>	Mandatory

<b>Number of Questions :</b>	10
<b>Number of Questions to be attempted :</b>	10
<b>Section Marks :</b>	100
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	327187371
<b>Question Shuffling Allowed :</b>	No

**Question Number : 1 Question Id : 3271872161 Question Type : SUBJECTIVE**

**Correct Marks : 10**

- a) Elucidate the venous drainage of the brain. [5]
- b) Which surgical position is associated with the highest risk of venous air embolism? [1]
- c) Why is the risk of venous air embolism highest in this position? [4]

**Question Number : 2 Question Id : 3271872162 Question Type : SUBJECTIVE**

**Correct Marks : 10**

- a) Discuss the functional anatomy of the cerebellopontine angle. [5]
- b) What are the various surgical positions that can be used for resection of a cerebellopontine tumor? [2]
- c) What intraoperative neuromonitoring techniques would you use during resection of a cerebellopontine tumor? [3]

**Question Number : 3 Question Id : 3271872163 Question Type : SUBJECTIVE**

**Correct Marks : 10**

- a) Enumerate the neuromonitoring techniques that can be used for monitoring cerebral oxygenation and cerebral blood flow. [2+2]
- b) Enumerate the advantages and disadvantages of the commonly used techniques. [6]

**Question Number : 4 Question Id : 3271872164 Question Type : SUBJECTIVE**

**Correct Marks : 10**

- a) Discuss the relationship between intracranial volume and intracranial pressure. [5]
- b) What is cerebrovascular pressure reactivity index? [5]

**Question Number : 5 Question Id : 3271872165 Question Type : SUBJECTIVE**

**Correct Marks : 10**

- a) What is the influence of PaCO<sub>2</sub> levels on the cerebral blood flow? [5]
- b) What is the effect of anaesthetic agents on cerebral autoregulation and cerebrovascular reactivity to CO<sub>2</sub>? [5]

**Question Number : 6 Question Id : 3271872166 Question Type : SUBJECTIVE**

**Correct Marks : 10**

- a) Differentiate between vasogenic and cytotoxic edema. [3]
- b) How is cerebral edema identified on neuroimaging? [3]
- c) Which of these neuroimaging modalities is useful for differentiating between cytotoxic and vasogenic edema? [2]
- d) What are the indications for use of corticosteroids in cerebral edema? [2]

**Question Number : 7 Question Id : 3271872167 Question Type : SUBJECTIVE**

**Correct Marks : 10**

- a) Elucidate the key features of focal brain ischemia and the rationale behind "therapeutic time frames" for management of Acute Ischemic stroke. [5]
- b) What is the "therapeutic time window" for administering intravenous thrombolysis in an eligible patient with an acute ischemic stroke? [1]
- c) What is the "therapeutic time window" for mechanical thrombectomy in an eligible patient with an acute ischemic stroke? [1]
- d) Enumerate the complications of recanalization therapy in acute ischemic stroke. [3]

**Question Number : 8 Question Id : 3271872168 Question Type : SUBJECTIVE**

**Correct Marks : 10**

Differentiate between:

- a) Primary and secondary brain injury. [5]

b) Necrosis and apoptosis. [5]

**Question Number : 9 Question Id : 3271872169 Question Type : SUBJECTIVE**

**Correct Marks : 10**

a) What is the mechanism of action of Tranexamic Acid? [3]

b) Discuss its role in neurosurgery, neurological emergencies and neuro-intensive care. [7]

**Question Number : 10 Question Id : 3271872170 Question Type : SUBJECTIVE**

**Correct Marks : 10**

Describe the mechanism of action, pharmacodynamics, potential indications (neurosurgery/ neurological emergencies/ neuro-intensive care) and significant adverse effects of:

(a) Vasopressin. [5]

(b) Desmopressin. [5]