

# National Board of Examinations

Question Paper Name :	DrNB INTERVENTIONAL RADIOLOGY Paper3
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## DrNB INTERVENTIONAL RADIOLOGY Paper3

Group Number :	1
Group Id :	3271872793
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100

## DrNB INTERVENTIONAL RADIOLOGY Paper3

Section Id :	3271872796
Section Number :	1
Section type :	Offline
Mandatory or Optional :	Mandatory
Number of Questions :	10
Number of Questions to be attempted :	10
Section Marks :	100
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	3271872800
Question Shuffling Allowed :	No

Question Number : 1 Question Id : 32718729214 Question Type : SUBJECTIVE Consider As Subjective : Yes

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) Discuss medical management of patients with aneurysmal sub-arachnoid hemorrhage before and after coiling the aneurysm. [4]
- b) Describe the pathophysiology of cerebral vasospasm in aneurysmal sub-arachnoid hemorrhage. [3]
- c) Discuss endovascular treatment of vasospasm in aneurysmal sub-arachnoid hemorrhage. [3]

**Question Number : 2 Question Id : 32718729215 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

A 60-year-old hypertensive male is brought to a Stroke unit with acute onset right hemiparesis and aphasia (NIHSS score 16) of 8 hours duration.

- a) Draw a flowchart to elucidate the clinical, diagnostic and management protocol in such a patient. [4]
- b) Describe the procedure of aspiration thrombectomy in acute middle cerebral artery occlusion. [3]
- c) Enumerate the essential endovascular hardware and drugs to be kept in an interventional lab where stroke patients are treated. [3]

**Question Number : 3 Question Id : 32718729216 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

- a) Enumerate different sites of head and neck paraganglioma with their principal arterial supply. [3]
- b) Describe complications of trans-arterial embolization of head and neck tumours and techniques employed to avoid the same. [4]
- c) Discuss role of direct puncture embolization in head and neck tumours. [3]

**Question Number : 4 Question Id : 32718729217 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

- a) Classify carotico-cavernous fistulae based upon the angioarchitecture. [3]
- b) Discuss the different management strategies in direct and indirect carotico-cavernous fistulae. [4]

c) Discuss role of parent artery occlusion in the treatment of carotico-cavernous fistulae. [3]

**Question Number : 5 Question Id : 32718729218 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

- a) Discuss the clinical profile and imaging findings in a patient with spinal dural arterio-venous fistula. [3]
- b) Describe the endovascular treatment planning in spinal dural arterio-venous fistulae. [4]
- c) Discuss the post procedure management and patient counselling in a patient with spinal dural arterio-venous fistula. [3]

**Question Number : 6 Question Id : 32718729219 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

- a) Discuss patient selection criteria and pre-procedure workup for carotid stenting. [4]
- b) Enumerate the differences between open cell and closed cell design carotid stents. [3]
- c) Discuss the deployment and retrieval mechanism of any one type of distal embolic protection device used in carotid stenting. [3]

**Question Number : 7 Question Id : 32718729220 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

- a) Discuss the natural history of brain arterio-venous malformations. [3]
- b) Describe in details the angioarchitecture evaluation while planning treatment in a case of brain arterio-venous malformation. [4]
- c) Describe complications during embolization of brain arterio-venous malformations with ethylene vinyl hydroxide (EVOH) liquid embolic agents. [3]

**Question Number : 8 Question Id : 32718729221 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

- a) Classify the types of Vein of Galen malformation and describe the natural history of disease. [5]
- b) Discuss the clinico-radiological evaluation and treatment plan of a neonate born with an ante-natal diagnosis of Vein of Galen malformation. [5]

**Question Number : 9 Question Id : 32718729222 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

- a) Describe the mechanism of cryoablation. [3]
- b) Discuss the application of cryoablation in soft tissue tumors. [4]
- c) Discuss the adverse events associated with cryoablation, their management and methods to prevent them. [3]

**Question Number : 10 Question Id : 32718729223 Question Type : SUBJECTIVE Consider As Subjective : Yes**

**Correct Marks : 10**

- a) Enumerate indications for intra-arterial chemotherapy in the management of retinoblastoma. [3]
- b) Enumerate the pharmacological agents (with dosage) used in intra-arterial chemotherapy for retinoblastoma. [3]
- c) Discuss the technique and complications of intra-arterial chemotherapy in retinoblastoma. [4]