

APRIL - 2001

[KD 060]

Sub. Code : 1851

M.Ch. DEGREE EXAMINATION

(Higher Specialities)

Branch VIII — Vascular Surgery

(Revised Regulations)

Paper I — BASIC SCIENCES APPLIED TO
VASCULAR SURGERY

Time : Three hours

Maximum : 100 marks

Answer ALL questions

1. Discuss haemodynamics, pathophysiology and management of arteriovenous fistulae. (25)
 2. What is critical limb ischaemia? Discuss aetiology, pathophysiology assessment and management of this condition. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Physiological and Biological aspects of vascular grafts
 - (b) Smoking and Vascular diseases
 - (c) Role of Prostaglandin in Vascular surgery
 - (d) Radio nucleide angiography
 - (e) Role of free radicals in ischaemic limb.
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NOVEMBER - 2001

[KE 060]

Sub. Code : 1851

M.Ch. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch VIII — Vascular Surgery

Paper I — BASIC SCIENCES APPLIED TO
VASCULAR SURGERY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Describe the anatomy of abdominal aorta and its major branches with illustrations. Give a detailed account of mesenteric collateral circulation. (25)
 2. Discuss aetio-pathogenesis of vascular diseases with particular emphasis to atherosclerosis. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Anatomy of great saphenous vein and its clinical uses
 - (b) Low molecular weight Heparin
 - (c) Major arterial collateral circulation around gluteal and knee regions
 - (d) Blood supply to spinalcord
 - (e) Atheroembolism.
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MARCH - 2002

[KG 060]

Sub. Code : 185]

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VIII — Vascular Surgery

Paper I — BASIC SCIENCES APPLIED TO
VASCULAR SURGERY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the anatomy of extra cranial carotid and vertebral arteries including an account of their collateral circulation. (25)
2. Discuss physiology of coagulation and clinical pharmacology of anticoagulants and antiplatelet drugs in vascular practice. (25)
3. Write short notes on : (5 × 10 = 50)
 - (a) Collateral systemic venous circulation (to IVC) in abdomen.
 - (b) IO HEXOL.
 - (c) Myointimal hyperplasia.
 - (d) Anatomy of profundafemoris artery.
 - (e) Mesenteric Angina.

SEPTEMBER - 2002

[KH 060]

Sub. Code : 1851

M.Ch. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch VIII — Vascular Surgery

Paper I — BASIC SCIENCES APPLIED TO
VASCULAR SURGERY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the anatomy of the thoracic outlet and the management of thoracic outlet syndrome. (25)
 2. Discuss the aetiopathology of disseminated intravascular coagulation. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) An ideal vascular graft
 - (b) Riolan's arc
 - (c) Post phlebotic syndrome
 - (d) Myoglobinuria
 - (e) Collateral circulation around the knee joint.
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AUGUST - 2004

[KL 060]

Sub. Code : 1851

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VIII — Vascular Surgery

**Paper I — BASIC SCIENCES APPLIED TO
VASCULAR SURGERY**

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(2 × 15 = 30)

(1) Discuss in detail the evaluation of a patient coming with the history of lower limb claudication.

(2) Discuss the aetiopathogenesis of aortic aneurysms.

II. Write short notes on :

(10 × 5 = 50)

- (1) Alexis carrel**
- (2) Persistent sciatic artery**
- (3) Porosity of vascular grafts**
- (4) Ankle-brachial pressure index**
- (5) Ulnar nerve conduction velocity**
- (6) Shunting for carotid endarterectomy**
- (7) Fontaine classification of chronic leg ischaemia**
- (8) Classification of lymphoedema**
- (9) Oral anticoagulants**
- (10) Vascular complications of drug abuse.**

AUGUST - 2006

[KP 060]

Sub. Code : 1851

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VIII — Vascular Surgery

Paper I — BASIC SCIENCES APPLIED TO
VASCULAR SURGERY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(1) Discuss Atherogenesis and importance of intima - Media thickness in vascular surgery. (20)

(2) Discuss pathogenesis of venous ulceration and natural course of venous hypertension. (15)

(3) Discuss the pathophysiological changes in the chronic venous insufficiency. (15)

II. Short notes :

(6 × 5 = 30)

- (a) Vascular wall calcification
 - (b) Splenic artery Aneurysm
 - (c) Brachial artery injuries
 - (d) Pulse volume recordings
 - (e) Hyper coagulability
 - (f) Diabetes and lipids in relation to vascular bypass.
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August-2007

[KR 060]

Sub. Code : 1851

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VIII — Vascular Surgery

Paper I — BASIC SCIENCES APPLIED TO
VASCULAR SURGERY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay :

1. Discuss in detail the functions of the intima of an artery. (20)
2. Discuss the etiopathogenesis of abdominal aortic aneurysm. (15)
3. Describe the anatomy of popliteal artery with reference to its surgical exposure. (15)

II. Short notes :

(6 × 5 = 30)

- (a) Porosity of vascular grafts.
 - (b) Fontaine classification chronic limb ischaemia.
 - (c) International Normalised Ratio. (INR)
 - (d) Complications of long-term Heparin Therapy.
 - (e) Diabetic Nephropathy.
 - (f) Development of Inferior vena cava.
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August 2008

[KT 060]

Sub. Code: 1851

M.Ch. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch VIII – VASCULAR SURGERY

Paper I – BASIC SCIENCES APPLIED TO VASCULAR SURGERY

Q.P. Code: 181851

Time: Three hours

Maximum: 100 Marks

ANSWER ALL QUESTIONS

Draw suitable diagrams wherever necessary.

I. Essays:

(2 x 20 = 40)

1. Discuss Genetic manipulations in vascular disease.
2. Discuss the anatomy and physiology of the autogeneous vein and techniques of vein graft preparation.

II. Write short notes on:

(10 x 6 = 60)

1. Development of lower extremity arterial system.
 2. Plaque morphology and evolution of atherosclerotic lesions.
 3. Physiological indices in assessment of PAOD.
 4. Types of plethysmography and significance in management of venous disorder.
 5. IA DSA.
 6. Direct thrombin inhibitors.
 7. Protamine sulphate.
 8. Role of prostaglandins in vascular surgery.
 9. CPRS.
 10. APLA syndrome.
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August 2011

[KZ 060]

Sub. Code: 1851

MASTER OF CHIRURGIAE (M.Ch.) DEGREE EXAMINATION
(SUPER SPECIALITIES)

BRANCH VIII – VASCULAR SURGERY

BASIC SCIENCES AS APPLIED TO VASCULAR SURGERY

Q.P. Code:181851

Time : 3 hours
(180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

Pages Time Marks
(Max.) (Max.) (Max.)

- | | | | |
|--|----|----|----|
| 1. Discuss in detail about the etiopathogenesis and management of Takayasu's arteritis. | 11 | 35 | 15 |
| 2. Discuss in detail about the anatomy of arterial wall and thrombo modulation by endothelium. | 11 | 35 | 15 |

II. Write notes on :

- | | | | |
|-------------------------------------|---|----|---|
| 1. Anomalies of IVC. | 4 | 10 | 7 |
| 2. Unfractionated Heparin. | 4 | 10 | 7 |
| 3. Laplace law. | 4 | 10 | 7 |
| 4. Lipoprotein (a). | 4 | 10 | 7 |
| 5. Fondaparinux. | 4 | 10 | 7 |
| 6. Radiation Arteritis. | 4 | 10 | 7 |
| 7. Venous Aneurysms. | 4 | 10 | 7 |
| 8. Peroneal artery exposure. | 4 | 10 | 7 |
| 9. Persistent sciatic artery. | 4 | 10 | 7 |
| 10. Abdominal compartment syndrome. | 4 | 10 | 7 |

August 2009

[KV 060]

Sub. Code: 1851

MASTER OF CHIRURGIAE (M.Ch.) DEGREE EXAMINATIONS

(Super Specialities)

Branch VIII – VASCULAR SURGERY

(Revised Regulations)

Paper I– BASIC SCIENCES APPLIED TO VASCULAR SURGERY

Q.P. Code: 181851

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

(2 x 20 = 40)

1. Describe the anatomy and physiological features of the arterial wall and describe briefly the regulation of thrombosis by the endothelium.
2. Describe the anatomy and surgical exposure of the carotid bifurcation and internal carotid artery.

II. Write short notes on:

(10 x 6 = 60)

1. Platelet derived growth factor (PDGF).
2. Aprotinin.
3. Vitamin K dependent coagulation factors.
4. Protein C and Protein S.
5. Fibrous plaque.
6. Antioxidants.
7. Risk factors for atherosclerotic disease.
8. Expanded polytetrafluoro ethylene graft.
9. Popliteal entrapment syndrome.
10. L arginine.

[LB 025]

AUGUST 2012

Sub. Code: 1851

M.Ch – VASCULAR SURGERY

Paper – I BASIC SCIENCES AS APPLIED TO VASCULAR SURGERY

Q.P. Code: 181851

Time : 3 hours
(180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

Pages Time Marks
(Max.)(Max.)(Max.)

- | | | | |
|---|----|----|----|
| 1. Describe the anatomy of abdominal aorta and its major Branches with illustrations. Give a detailed account of Mesenteric-collateral circulation. | 16 | 35 | 15 |
| 2. Discuss the Hemodynamics, patho physiology and Current management of Arterio-Venous Fistula. | 16 | 35 | 15 |

II. Write notes on:

- | | | | |
|--|---|----|---|
| 1. Exposure of left Subclavian Artery. | 4 | 10 | 7 |
| 2. Anatomy of Deep-Femoral Artery. | 4 | 10 | 7 |
| 3. Popliteal Artery Aneurysms. | 4 | 10 | 7 |
| 4. Persistent Sciatic Artery. | 4 | 10 | 7 |
| 5. Blood Supply to Spinal Cord. | 4 | 10 | 7 |
| 6. Smoking and Vascular Disease. | 4 | 10 | 7 |
| 7. Anatomy and importance of arches of the foot. | 4 | 10 | 7 |
| 8. Surgical exposure of Peroneal Artery. | 4 | 10 | 7 |
| 9. Graft surveillance. | 4 | 10 | 7 |
| 10. Pharmacology of Fonda. | 4 | 10 | 7 |

(LD 025)

AUGUST 2013

Sub. Code:1851

M.Ch. – VASCULAR SURGERY
Paper – I BASIC SCIENCES AS APPLIED TO VASCULAR SURGERY
Q.P.Code: 181851

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Biology of arterial wall and discuss in detail endothelial dysfunction and chemical mediators.
2. Non invasive arterial physiologic assessment in vascular laboratory.

II. Write notes on:

(10X7=70)

1. Development of Abdominal Aorta.
2. Persistent Sciatic Artery.
3. Collateral pathways in Aorto iliac occlusion.
4. Calf Muscle pump.
5. Trans Cranial Doppler.
6. Anatomy of Circle of Willis.
7. Reperfusion Injury.
8. Intra Vascular Ultra Sound.
9. Intimal Hyperplasia.
10. N-acetyl cysteine.
