



Vascular Practice Exam



EXAM SECTION**Question No:1**

Maximum Marks	4
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Answer true or false in relation to the below statements relating to beta blockers:

Choose the correct answer

- A **True** **False** are used secondary prevention of myocardial infarction
- B **True** **False** are used in treatment of pulmonary hypertension
- C **True** **False** are a Class 1 antidysrhythmic drug
- D **True** **False** increase refractory period of the AV node



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Question No:2

Maximum Marks	1
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In the immediate (type 1) hypersensitivity reaction

Choose the correct answer

- A . mast cell activation is not affected by phospholipase A₂
- B . sensitized mast cells with attached IgA antibodies are activated to release granules
- C . T helper 1 (Th 1) cell responses in Type 1 hypersensitivity reactions are typically excessive
- D . there may only be a localized reaction
- E . the late-phase reaction requires additional exposure to antigen and may last for several day



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Question No:3

Maximum Marks	4
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With respect to angiogenesis during healing

Choose the correct answer

- A **True** **False** nitric oxide (NO) production is suppressed, which stimulates sprouting of new vessels
- B **True** **False** the Notch signalling pathway ensures proper spacing of new vessels
- C **True** **False** TGF- β stimulates endothelial proliferation
- D **True** **False** fibroblast growth factors (FGFs) suppress endothelial proliferatio



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Question No:4

Maximum Marks	4
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Platelet activating factor (PAF)

Choose the correct answer

- A **True** **False** causes bronchoconstriction
- B **True** **False** increases venular permeability
- C **True** **False** production is inhibited by COX-2 inhibitors
- D **True** **False** can be produced by endothelial cell



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Question No:5

Maximum Marks	4
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After injury to the wall of a blood vessel

Choose the correct answer

- A **True** **False** platelet adhesion and aggregation contribute to the temporary haemostatic plug
- B **True** **False** activation of coagulation by the intrinsic system contributes to the definitive haemostatic plug
- C **True** **False** local vasoconstriction contributes to the temporary haemostatic plug
- D **True** **False** the conversion of fibrinogen is activated by thrombin



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Question No:6

Maximum Marks	4
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Long term compensatory mechanisms to moderate haemorrhage include

Choose the correct answer

- A **True** **False** mobilization of protein free extravascular fluid
- B **True** **False** mobilization of preformed albumin from intravascular stores
- C **True** **False** hepatic synthesis of protein
- D **True** **False** increased red cell 2,3-DPG



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Question No:7

Maximum Marks	4
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Consequences of insulin deficiency in type 1 diabetes mellitus include:

Choose the correct answer

- A **True** **False** decreased glucose uptake by cells
- B **True** **False** decreased protein catabolism
- C **True** **False** increased plasma free fatty acids
- D **True** **False** peripheral oedema



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Question No:8

Maximum Marks	4
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The inferior vena cava

Choose the correct answer

- A **True** **False** is formed anterior to the third lumbar vertebra
- B **True** **False** leaves the abdomen at the level of the eighth thoracic vertebra
- C **True** **False** is anterior to the epiploic foramen
- D **True** **False** receives the right suprarenal vein



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Question No:9

Maximum Marks	4
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Renin secretion is increased by

Choose the correct answer

- A **True** **False** decreased sodium (Na⁺) exchange in the macula densa
- B **True** **False** vasopressin
- C **True** **False** hypokalaemia
- D **True** **False** inhibition of renal sympathetic nerve activity



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Question No:10

Maximum Marks	4
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Low density lipoprotein (LDL)

Choose the correct answer

- A **True** **False** contains more triglyceride than cholesterol
- B **True** **False** contains cholesterol predominantly in the unesterified form
- C **True** **False** originates primarily in the intestine
- D **True** **False** is derived in part from VLDL in the circulation



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Question No:11

Maximum Marks	4
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Adverse effects of ionising radiation include:

Choose the correct answer

- A **True** **False** fibrosis of salivary glands
- B **True** **False** cataracts of the lens
- C **True** **False** carcinoma of the thyroid
- D **True** **False** decrease of dopamine reuptake in the central nervous system



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Question No:12

Maximum Marks	4
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With regard to unfractionated heparin

Choose the correct answer

- A **True** **False** the anticoagulant effect is more readily reversed by protamine than low molecular weight heparins
- B **True** **False** osteoporosis occurs with chronic use
- C **True** **False** heparin-induced thrombocytopenia type 2 is an absolute contraindication to continued use
- D **True** **False** hyperkalaemia can occur with prolonged use



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Question No:13

Maximum Marks	4
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Protein C

Choose the correct answer

- A **True** **False** is activated by Protein S
- B **True** **False** is activated by thrombin-thrombomodulin complex
- C **True** **False** when activated, inactivates activated factors V (Vc) and VIII (VIIIc)
- D **True** **False** when activated, inactivates plasminogen activator inhibitor



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Question No:14

Maximum Marks	4
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Factor V Leiden mutation

Choose the correct answer

- A **True** **False** is associated with venous but not arterial thromboembolic events
- B **True** **False** can be identified using polymerase chain reaction
- C **True** **False** usually presents clinically after the fifth decade of life
- D **True** **False** is characterised by protein C resistance



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Question No:15

Maximum Marks	4
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The portal vein

Choose the correct answer

- A **True** **False** runs upwards between the layers of the lesser omentum
- B **True** **False** is usually formed by the union of the splenic and superior mesenteric veins
- C **True** **False** drains blood from the stomach and oesophagus
- D **True** **False** lies medial to the hepatic artery proper



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Question No:16

Maximum Marks	4
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The external carotid artery lies

Choose the correct answer

- A **True** **False** on the middle constrictor muscle
- B **True** **False** deep to the stylohyoid muscle
- C **True** **False** superficial to the stylopharyngeus muscle
- D **True** **False** superficial to the pharyngeal branch of the vagus nerve



Question No:17

Maximum Marks	4
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The femoral nerve

Choose the correct answer

- A **True** **False** gives, directly or indirectly, branches to the hip and knee joints
- B **True** **False** gives branches to the quadriceps femoris muscle
- C **True** **False** originates from the second, third and fourth lumbar spinal nerves
- D **True** **False** supplies tensor fasciae latae



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Question No:18

Maximum Marks	4
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The great saphenous vein

Choose the correct answer

- A **True** **False** is accompanied by lymphatics that drain most of the lower limb
- B **True** **False** is the pre-axial vein of the limb
- C **True** **False** is anterior to the medial malleolus
- D **True** **False** usually drains the deep veins of the calf by a single branch close to the knee joint



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Question No:19

Maximum Marks	4
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The sympathetic trunk in the thorax

Choose the correct answer

- A **True** **False** has white rami communicantes lying proximal to the grey rami
- B **True** **False** supplies the abdomen through the hypogastric plexuses
- C **True** **False** usually has up to twelve ganglia
- D **True** **False** supplies sympathetic fibres to the eye and face via the T1 outflow



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Question No:20

Maximum Marks	4
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The hypoglossal nerve

Choose the correct answer

- A **True** **False** emerges from the medulla oblongata ventral to the olive
- B **True** **False** initially lies deep to internal jugular vein
- C **True** **False** leaves the skull through a canal in the occipital bone
- D **True** **False** supplies intrinsic but not extrinsic muscles of the tongue



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Question No:21

Maximum Marks	4
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Common predisposing causes of aortic dissection include

Choose the correct answer

- A **True** **False** cystic medial degeneration
- B **True** **False** syphilitic aortitis
- C **True** **False** systemic hypertension
- D **True** **False** aortic atherosclerosis



Question No:22

Maximum Marks	4
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Question Description

Coagulation

With regard to coagulation, an effective indicant of

Choose the correct answer

- A **True** **False** intrinsic coagulation activity is the activated partial thromboplastin time (APTT)
- B **True** **False** extrinsic coagulation activity is the prothrombin time (PT)
- C **True** **False** platelet function is the skin bleeding time
- D **True** **False** anticoagulant activity is the level of activated factor XII



Question No:23

Maximum Marks	4
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A moderate level of aerobic exercise produces

Choose the correct answer

- A **True** **False** an increase in ventilation which matches the increase in oxygen consumption
- B **True** **False** a decreased arterial pCO₂
- C **True** **False** a decrease in mixed venous oxygen levels
- D **True** **False** a decrease in plasma bicarbonate



Question No:24

Maximum Marks	4
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Chemical mediators of the inflammatory response which are derived from inactive precursors in plasma include

Choose the correct answer

- A **True** **False** Bradykinin
- B **True** **False** Prostaglandins
- C **True** **False** C3a
- D **True** **False** Serotonin



Question No:25

Maximum Marks	4
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Structures which pass between the external and the internal carotid arteries include

Choose the correct answer

- A **True** **False** the hypoglossal nerve
- B **True** **False** the glossopharyngeal nerve
- C **True** **False** a portion of the parotid gland
- D **True** **False** the stylopharyngeus muscle



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Question No:26

Maximum Marks	4
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The lateral plantar artery

Choose the correct answer

- A **True** **False** anastomoses with the medial plantar artery to complete the plantar arch
- B **True** **False** crosses the sole obliquely on the lateral side of the lateral plantar nerve
- C **True** **False** lies superficial to the flexor accessorius muscle
- D **True** **False** anastomoses with dorsalis pedis and arcuate arteries via the plantar arch



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Question No:27

Maximum Marks	4
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Factor Xa inhibitors

Choose the correct answer

- A **True** **False** can be used in the management of acute pulmonary embolism and deep venous thrombosis in selected patients
- B **True** **False** require care when co-prescribed with azole antimycotics and HIV protease inhibitors
- C **True** **False** do not require regular blood coagulation monitoring
- D **True** **False** do not have specific reversal agents available



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Question No:28

Maximum Marks	4
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With regard to Nitric oxide (NO)

Choose the correct answer

- A **True** **False** it inhibits vasodilatation
- B **True** **False** its production is induced in neutrophils and macrophages by gamma interferon
- C **True** **False** it strongly stimulates leukocyte recruitment
- D **True** **False** it reacts with superoxide to form nitrogen-derived free radicals in macrophages



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Question No:29

Maximum Marks	4
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In the Lymphatic Vascular System

Choose the correct answer

- A **True** **False** there are no valves
- B **True** **False** there is no smooth muscle in the vessel wall
- C **True** **False** the thoracic duct drains into the confluence of the right internal jugular and subclavian veins
- D **True** **False** there may be erythrocytes



Question No:30

Maximum Marks	4
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In healing skin wounds

Choose the correct answer

- A **True** **False** early provisional matrix has a high content of Type III collagen
- B **True** **False** regeneration of dermal appendages occurs over several months
- C **True** **False** fibronectin from plasma plays an important role in healing
- D **True** **False** cross-linkage of collagen is achieved by metalloproteinases



Question No:31

Maximum Marks	4
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The following structures traverse the diaphragm, but do NOT go through its three major openings:

Choose the correct answer

- A **True** **False** the left phrenic nerve
- B **True** **False** right vagal trunk
- C **True** **False** the right sympathetic trunk
- D **True** **False** the left internal thoracic artery



Question No:32

Maximum Marks	4
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Which of the following changes are seen in the inflammatory acute phase response?

Choose the correct answer

- A **True** **False** prostaglandin production
- B **True** **False** increased production of colony-stimulating factors
- C **True** **False** increased sweating
- D **True** **False** increased concentrations of serum amyloid A (SAA) protein

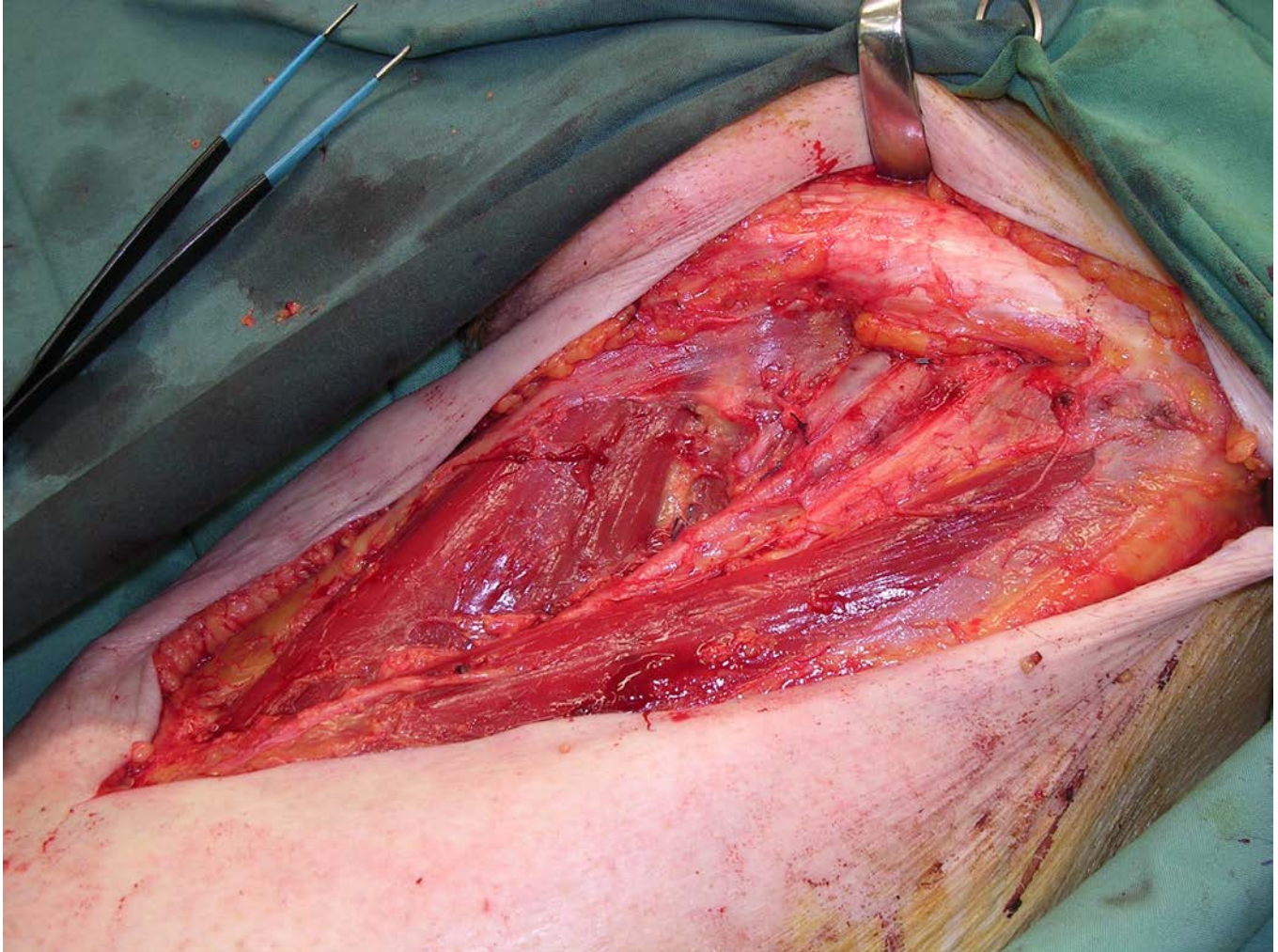


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Question No:33**Maximum Marks** | **4****Question Description**

Femoral triangle

The area demonstrated in this image of the thigh

**Choose the correct answer**

- A True False is bounded laterally by the lateral border of sartorius
- B True False contains the common femoral vein within the femoral sheath
- C True False contains the femoral nerve, separated into superficial and deep branches by the medial circumflex femoral artery
- D True False contains the common femoral artery terminating into the superficial femoral and profunda femoris arteries

Question No:34

Maximum Marks	4
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The femoral nerve

Choose the correct answer

- A **True** **False** consists of superficial and deep branches separated by the lateral circumflex femoral artery
- B **True** **False** gives rise to the lateral cutaneous nerve of the thigh within the abdomen
- C **True** **False** gives rise to the saphenous nerve
- D **True** **False** consists of fibres derived from lumbar nerves 2, 3, 4 and 5

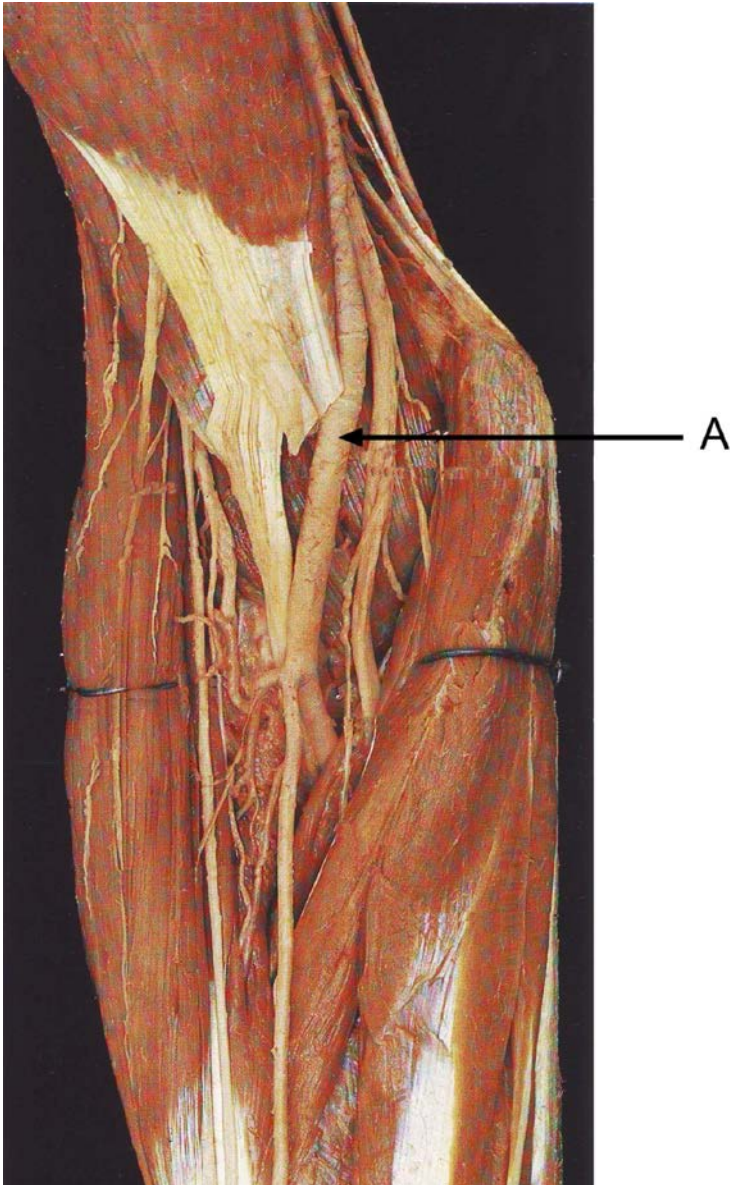


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Question No:35

Maximum Marks	4
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The structure marked 'A' in the cubital fossa



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Choose the correct answer

- A True False is a medial relation of the median nerve
- B True False is a lateral relation of the tendon of biceps brachii
- C True False gives rise to the common interosseous artery
- D True False lies superficial to the bicipital aponeurosis

Question No:36

Maximum Marks	4
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The arch of the aorta

Choose the correct answer

- A **True** **False** is crossed anteriorly and to the left by the left supreme intercostal vein
- B **True** **False** has the left brachiocephalic vein above it
- C **True** **False** usually causes an impression on the left side of the oesophagus
- D **True** **False** is crossed anteriorly and to the left by the left phrenic nerve



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Question No:37

Maximum Marks	4
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The axillary artery

Choose the correct answer

- A **True** **False** can be exposed by splitting the clavicular head of pectoralis major
- B **True** **False** has the midpoint of the clavicle as its surface marking
- C **True** **False** is continuous with the brachial artery at the inferior border of the teres major
- D **True** **False** is related to the posterior cord of the brachial plexus



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Question No:38

Maximum Marks	4
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The inferior vena cava

Choose the correct answer

- A **True** **False** enters the right atrium to the right of the fossa ovalis
- B **True** **False** enters a deep groove on the bare area of the liver, to the right of the caudate lobe
- C **True** **False** commences at level of L4
- D **True** **False** is posterior to the medial part of the right suprarenal gland

Question No:39

Maximum Marks	4
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The first rib

Choose the correct answer

- A **True** **False** has a subclavian groove containing only the subclavian artery
- B **True** **False** has a slip of serratus anterior and serratus posterior superior attached
- C **True** **False** has the suprapleural membrane attached to its inner margin, behind the subclavian groove
- D **True** **False** is the shortest, widest, flattest and most curved rib



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Question No:40

Maximum Marks	4
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Anterior relations of the right ureter include

Choose the correct answer

- A **True** **False** the root of the small bowel mesentery
- B **True** **False** the right genitofemoral nerve
- C **True** **False** the right gonadal vessels
- D **True** **False** the inferior mesenteric vessels



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Question No:41

Maximum Marks	4
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The internal carotid artery

Choose the correct answer

- A **True** **False** gives off the ophthalmic artery
- B **True** **False** usually begins about the level of the sixth cervical vertebra
- C **True** **False** is accompanied within the skull by preganglionic sympathetic nerve fibres
- D **True** **False** enters the skull through the foramen lacerum



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Question No:42

Maximum Marks	4
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Following haemorrhage of more than 20% of circulating blood volume

Choose the correct answer

- A **True** **False** the renal filtration fraction may increase
- B **True** **False** there is a fall in cardiac output and then blood pressure
- C **True** **False** the haematocrit may not fall for several hours
- D **True** **False** aldosterone takes 30 minutes to exert its effect



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Question No:43

Maximum Marks	4
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After injury to the wall of a blood vessel

Choose the correct answer

- A **True** **False** platelet adhesion and aggregation contribute to the temporary haemostatic plug
- B **True** **False** activation of coagulation by the intrinsic system contributes to the definitive haemostatic plug
- C **True** **False** local vasoconstriction contributes to the temporary haemostatic plug
- D **True** **False** the conversion of fibrinogen is activated by thrombin



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Question No:44

Maximum Marks	4
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Scatter radiation is affected by the following variables:

Choose the correct answer

- A **True** **False** Beam size
- B **True** **False** Large distances between the x-ray source and the image intensifier
- C **True** **False** Patient BMI
- D **True** **False** Gantry angulation



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Question No:45

Maximum Marks	4
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Regarding disseminated intravascular coagulation (DIC)

Choose the correct answer

- A **True** **False** there may have been intravascular release of tissue thromboplastin (tissue factor)
- B **True** **False** thrombocytopenia is common
- C **True** **False** heparin therapy is absolutely contraindicated
- D **True** **False** plasma factor VIII levels fall



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Question No:46

Maximum Marks	4
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Intact endothelium secretes

Choose the correct answer

- A **True** **False** thrombomodulin
- B **True** **False** adenosine diphosphate (ADP)
- C **True** **False** an inhibitor of plasminogen activation (tPA inhibitor)
- D **True** **False** prostacyclin (PGI₂)

Question No:47

Maximum Marks	4
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At a site of atherosclerosis

Choose the correct answer

- A **True** **False** C-reactive protein is secreted from cells in the lesion activating local endothelial cells
- B **True** **False** oxidised LDL stimulates release of growth factors from endothelial cells
- C **True** **False** IFN-gamma from T lymphocytes in the intima inhibits macrophage activation
- D **True** **False** oxidised LDL is toxic to smooth muscle cells



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Question No:48

Maximum Marks	4
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Time gain compensation

Choose the correct answer

- A **True** **False** requires adjustment depending on the tissue being scanned
- B **True** **False** is reduced using transducers with greater frequency
- C **True** **False** requires adjustment when scanning obese patients
- D **True** **False** is set objectively based on the depth of the field of view



Question No:49

Maximum Marks	4
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The superficial inguinal lymph nodes

Choose the correct answer

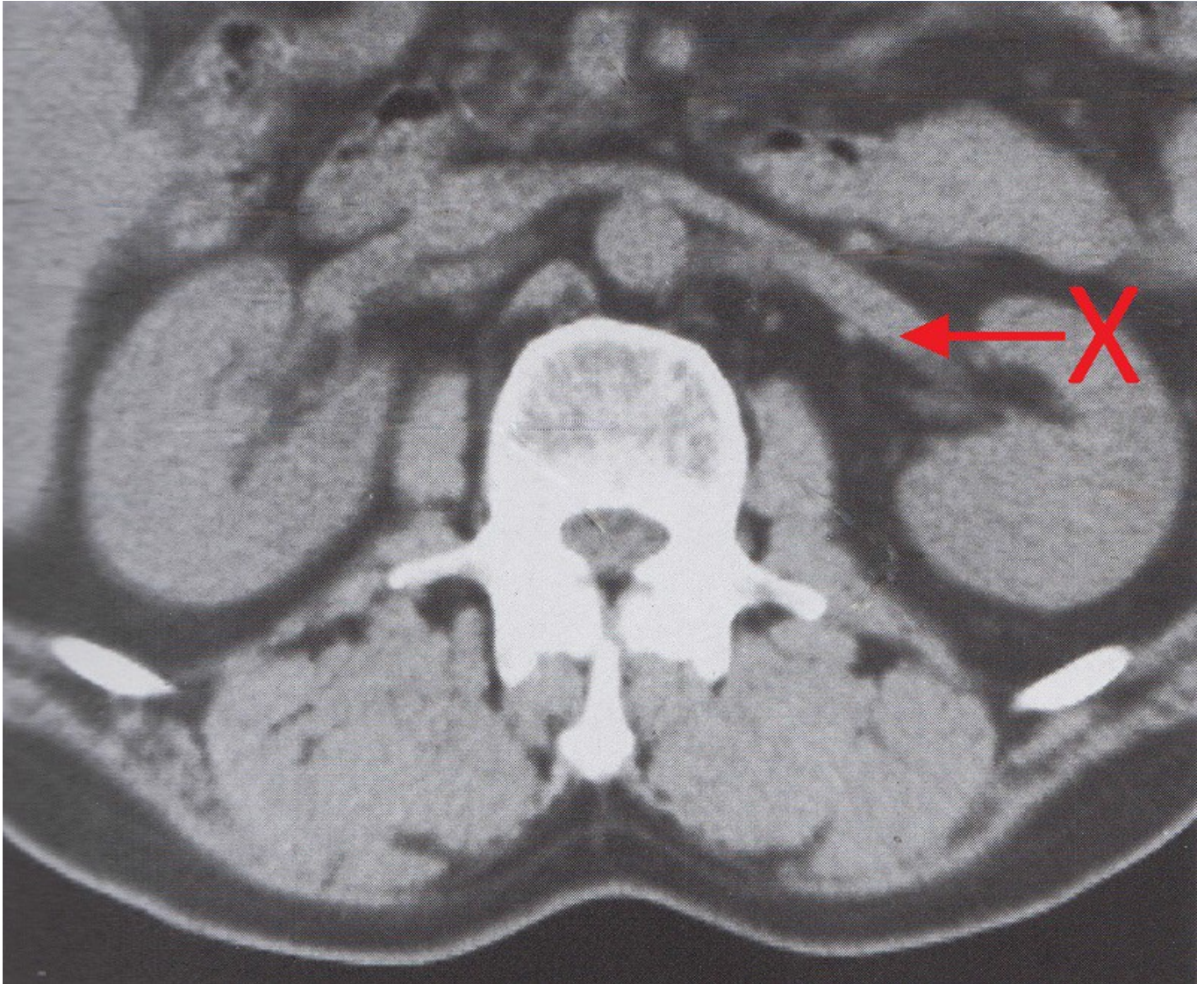
- A **True** **False** consist of medial, lateral and vertical groups
- B **True** **False** receive lymph from the anterior abdominal wall below the level of umbilicus
- C **True** **False** receive lymph from the gluteal region
- D **True** **False** receive lymph from the distal anal canal



Question No:50

Maximum Marks	4
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The structure marked X in the computed tomograph (CT) image



Choose the correct answer

- A True False lies posterior to the ureter
- B True False has the inferior mesenteric artery anterior to it
- C True False receives the gonadal vein
- D True False receives the adrenal vein

Question No:51

Maximum Marks	4
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In duplex ultrasound scanning aliasing

Choose the correct answer

- A **True** **False** occurs when the rate of sampling is less than twice the frequency of whatever is being sampled
- B **True** **False** can be overcome by decreasing the pulse repetition frequency
- C **True** **False** can be overcome by increasing the transmitted frequency
- D **True** **False** can be overcome by adjusting the baseline



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Question No:52

Maximum Marks	4
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The tibial nerve

Choose the correct answer

- A **True** **False** is superficial to the popliteal vessels in the popliteal fossa
- B **True** **False** gives branches to the muscles which dorsiflex the foot
- C **True** **False** gives branches to the knee and ankle joints
- D **True** **False** gives off the sural nerve to the medial side of the leg and foot



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Question No:53

Maximum Marks	4
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Polyarteritis nodosa

Choose the correct answer

- A **True** **False** may involve pulmonary arteries
- B **True** **False** is characterised by fibrinoid necrosis
- C **True** **False** is usually associated with ANCA's (antineutrophil cytoplasmic antibodies)
- D **True** **False** is associated with chronic Hepatitis B



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Question No:54

Maximum Marks	4
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Common predisposing causes of aortic dissection include

Choose the correct answer

- A **True** **False** idiopathic cystic medionecrosis
- B **True** **False** syphilitic aortitis
- C **True** **False** systemic hypertension
- D **True** **False** atherosclerosis



Question No:55

Maximum Marks	4
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Regarding development of the aortic arches

Choose the correct answer

- A **True** **False** an abnormal origin of the right subclavian artery passes across the midline in front of the oesophagus
- B **True** **False** a double aortic arch results from abnormal obliteration of the right 4th aortic arch
- C **True** **False** the descending aorta and subclavian arteries receive arterial inflow from the pulmonary artery when obliteration of the left 4th aortic arch occurs
- D **True** **False** contraction of the connection between the left 6th aortic arch and the left dorsal aorta results in the ligamentum arteriosum



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Question No:56

Maximum Marks	4
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Thromboangiitis obliterans (Buerger disease)

Choose the correct answer

- A **True** **False** is commonly associated with immune reactivity to intradermal injection of tobacco extracts in affected individuals
- B **True** **False** usually manifests with sharply segmental inflammation of medium-sized and small arteries
- C **True** **False** arterial thrombosis is an uncommon complication
- D **True** **False** most commonly presents in elderly individuals



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Question No:57

Maximum Marks	4
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Reperfusion injury which occurs following restoration of interrupted blood flow is

Choose the correct answer

- A **True** **False** intensified by pretreatment with antioxidants
- B **True** **False** probably dependent on influx of polymorphonuclear leukocytes to the site
- C **True** **False** associated histologically with contraction bands in myocytes
- D **True** **False** enhanced by the deposition of IgM antibodies in ischaemic tissues



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Question No:58

Maximum Marks	4
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Physiological features of septic shock include

Choose the correct answer

- A **True** **False** widespread vasodilation
- B **True** **False** reduced cardiac output
- C **True** **False** increased capillary permeability
- D **True** **False** increased cellular metabolism



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Question No:59

Maximum Marks	4
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Computed tomography (CT) Hounsfield units

Choose the correct answer

- A **True** **False** represent X-ray attenuation
- B **True** **False** vary depending on the patient
- C **True** **False** are expressed relative to air
- D **True** **False** vary depending on the tissue



Question No:60

Maximum Marks	4
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In regards to transcutaneous partial pressure of oxygen (TcPO₂)

Choose the correct answer

- A **True** **False** Reflects the quantitative assessment of the amount of oxygen in mmHg that has diffused from the capillaries, through the epidermis, to a heated electrode
- B **True** **False** The independent predictive value has been precisely determined
- C **True** **False** Most often been investigated to determine amputation level and to determine the healing potential of ulcers or amputation wounds
- D **True** **False** Is limited by the fact it is time consuming, operator dependent and measurements cover a small area of tissue



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