Section 9. Cardiovascular system

1 The heart (cor):
is a hollow muscular organ
possesses two atria
possesses two ventricles
is a parenchymatous organ
is covered with adventitia

2 The human heart (cor) presents:
apex (apex cordis)
base (basis cordis)
sternocostal surface (facies sternocostalis)
pulmonary surface (facies pulmonalis)
vertebral surface (facies vertebralis)

3 The grooves on the heart surface:
coronary sulcus (sulcus coronarius)
posterior interventricular sulcus (sulcus interventricularis posterior)
anterior interventricular sulcus (sulcus interventricularis anterior)
costal sulcus (sulcus costalis)
anterior median sulcus(sulcus medianus anterior)

4 Coronary sulcus of the heart (sulcus coronarius):
serves to be the outer border between atria (atria cordis) and ventricles (ventriculi cordis)
contains the coronary vessels
serves to be the outer border between the right and left atria (atrium cordis dextrum/sinistrum)
serves to be the outer border between the right and left ventricles (ventriculus cordis dexter/sinister)
is proper to the pulmonary surface of heart (facies pulmonalis)

5 Heart auricles (auriculae):
are constituent components of the right and left atrium (atrium dexter/sinister)
are constituent components of the right and left ventricles (ventriculus dexter/ sinister)
contain the papillary muscles
contain the pectinate muscles
participate in the base of heart

6 Anterior and posterior interventricular sulcuses (sulcus interventricularis anterior/posterior):
connect at the apex of heart (apex cordis)
connect at the base of heart (basis cordis)
branch off from the coronary sulcus (sulcus coronarius)
divide right and left ventricles (ventriculus dexter/sinister)
contain the branches of the coronary arteries (aa.coronariae)

7 The heart presents the following surfaces:
diaphragmatic surface (facies diafragmatica)
sternocostal surface (facies sternocostalis)
pulmonary surface (facies pulmonalis)
vertebral surface (facies vertebralis)
superior surface (facies superior)

8 The apex of heart is projected on the anterior thoracic wall:
in the V-th intercostal space
on the left at 1.5 cm inside of the midclavicular line
in the III-rd intercostal space
on the left at 1.5 cm inside of the midaxillary line
on the left at 1.5 cm outside of the midclavicular line

9 Projection of the upper border of heart on the anterior thoracic wall in adult corresponds to:
the line connecting the cartilages of the III-rd ribs
the line connecting the cartilages of the V-th ribs
the line connecting the cartilages of the II-nd ribs
the line connecting the cartilages of the IV-th ribs
the line connecting the cartilages of theVI-th ribs

10 The apex of heart (apex cordis) is:
directed obliquely downwards and forwards
located on the left at 1.5 cm inside of the midclavicular line
directed obliquely upwards
located at the line connecting the cartilages of the III-rd ribs
located at the edge of sternum

11 The inferior border of heart projection corresponds to the line connecting:
the cartilage of the V-th right rib with projection of the apex of heart
the cartilage of the III-th right rib with projection of the apex of heart
the cartilage of the III-th left rib with projection of the apex of heart
the cartilage of the III-th right rib with projection of the base of heart
the cartilages of the IV-th right and left ribs

12 The inferior border of heart projection:
is formed by the edges of the right and left ventricles (ventriculus cordis dexter/sinister)
is formed by the edge of the right ventricle only (ventriculus cordis dexter)
is formed by the edge of the left ventricle only (ventriculus cordis sinister)
passes through the line connecting the cartilage of the III-rd the right rib and the apex of heart (apex cordis)
passes through the line connecting the cartilage of the V-th right rib and the apex of heart (apex cordis)

13 Right atrium (atrium dexter):
is filled with venous blood
communicates with the right ventricle via the atrioventricular orifice (ostium atrioventriculare)
is filled with arterial blood
communicates with the left atrium (atrium sinister) via foramen ovale (foramen ovale cordis)
contains papillary muscles

14 The right atrium (atrium dexter) presents the openings:
of superior vena cava (vena cava superior)
of inferior vena cava (vena cava inferior)
foramen ovale
of hepatic portal vein (vena portae hepatis)
opening of coronary sinus (ostium sinus coronarii)

15 Oval fossa (fossa ovalis) is:
located at the interatrial septum (septum interatriale)
a remnant of overgrown foramen ovale (foramen ovale cordis)
located at the interventricular septum (septum interventriculare)
located at the wall of the right ventricle (ventriculus dexter)
absent in an adult

16 Foramina that open into the left atrium (atrium cordis sinistrum) are:

openings of pulmonary veins (venae pulmonales)
left atrioventricular orifice (ostium atrioventriculare sinister)
opening of superior vena cava (vena cava superior)
opening of inferior vena cava (vena cava inferior)
opening of pulmonary trunk (truncus pulmonalis)

17 Auricles of heart (auriculae):
are accessory cavities of the atria of heart (atrium cordis dextrum/sinistrum)
their walls contain pectinate muscles (mm.pectinati)
are accessory cavities of ventricles of heart (ventriculus cordis dexter/sinister)
their walls contain trabeculae carneae (trabeculae carneae)
do not communicate with the atrial cavities

18 Right ventricle of heart (ventriculus dexter):
is filled with venous blood
possesses an opening of pulmonary trunk (ostium trunci pulmonalis)
is filled with arterial blood
possesses aortic opening (ostium aortae)
possesses openings of pulmonary veins (ostia venarum pulmonalium)

19 Inner surface of the right ventricle (ventriculus dexter):
contains trabeculae carneae (trabeculae carneae)
presents papillary muscles (mm. papillares)
is smooth
contains opening of coronary sinus (ostium sinus coronarii)
presents oval fossa (fossa ovalis)

20 Interventricular septum (septum interventriculare):
separates the right ventricle from the left (ventriculus dexter/sinister):
has a muscular part (pars muscularis)
has a membranous part (pars membranacea)
has an oval fossa (fossa ovalis)
presents pectinate muscles (mm. pectinati)

21 Openings of the left ventricle of heart (ventriculus cordis sinistrum) are:
aortic orifice (ostium aortae)

left atrioventricular orifice (ostium atrioventriculare sinistrum)
opening of inferior vena cava (ostium venae cavae inferioris)
opening of pulmonary trunk (ostium trunci pulmonalis)
foramen ovale (foramen ovale)

22 The left ventricle is characterized by the following phenomena:
the wall of the left ventricle (ventriculus cordis sinistrum) is thicker than that of the right
from the left ventricle (ventriculus cordis sinistrum) comes out aorta (aorta)
the left ventricle (ventriculus cordis sinistrum) is filled with arterial blood
the walls of the left ventricle (ventriculus cordis sinistrum) are smooth
pulmonary veins (vv.pulmonales) fall into the left ventricle (ventriculus cordis sinistrum)

23 The wall of heart (cor) is composed of:
endocardium
myocardium
epicardium
endometrium
perimetrium

24 Endocardium:
includes the endothelial layer
lines totally the inner surface of the heart wall
forms cusps of valves (valvula, cuspis valvae)
is homologous to the vascular intima (tunica intima)
is represented by visceral and parietal layers

25 Myocardium:
is formed with cardiomyocytes
in the ventricular walls is composed of 3 layers
forms papillary muscles (mm.papillares)
forms trabeculae carnea
lines the heart cavity from the inside

26 Myocardium:
is a middle layer of the cardiac wall
forms trabeculae carnea

forms papillary muscles (mm.papillares)
lines the cardiac cavity from the inside
contains components of the conducting system of heart (complexus stimulans cordis)

27 Cardiac skeleton is represented by:
fibrous rings (annulus fibrosus)
fibrous triangles (trigonum fibrosum)
trabeculae carneae (trabeculae carneae)
tendinous cords (chordae tendineae)
pericardium

28 Right and left fibrous rings of heart (annulus fibrosus dexter/sinister) are:
parts of the soft skeleton of heart (cor)
form the support of the atrioventricular valves (valvae atrioventriculares)
parts of endocardium
parts of the conducting system of heart (complexus stimulans cordis)
parts of pericardium

29 The soft skeleton of heart:
is represented by fibrous rings and triangles (anulus fibrosus,trigonum fibrosum)
separates myocardium of atria from that of ventricles
forms the support of valves (valvae cordis)
serves to be a site of the myocardial fibres origins and insertions
is rich in supplying vessels and nerves

30 Epicardium:
is the outermost layer of the cardiac wall
is a visceral layer of pericardium (lamina visceralis pericardii)
is a part of the soft skeleton of the heart (cor)
is a parietal layer of pericardium (lamina parietalis pericardii)
contains obligatory mesothelial layer

31 The right atrioventricular orifice of heart (ostium atrioventriculare dextrum):
communicates the right atrium with the right ventricl
communicates the right atrium with left ventricl
is controlled by bicuspid, mitral valve (valva atrioventricularis sinistra, valva mitralis)

is controlled by the tricuspid valve (valva atrioventricularis dextra, valva tricuspidalis)
is supported in its size by the fibrous ring (anulus fibrosus)

32 The aortic valve (valve aortae):
is composed of three semilunar cusps (valvulae semilunares)
is located in the origin of aorta
is composed of two semilunar cusps (valvulae semilunares)
functions under the action of papillary muscles (mm. papillares)
functions under the action of blood stream

33 The tricuspid valve (valva atrioventricularis dextra, valva tricuspidalis):
is located between right atrium (atrium cordis dextrum) and the left ventricle (ventriculus cordis sinister)
is composed of three cusps (cuspis)
acts under the influence of the blood stream only
acts under the influence of papillary muscles only (mm. papillares)
acts under the influence of coordinated action of blood stream and of papillary muscles (mm. papillares)

34 The left atrioventricular orifice of heart (ostium atrioventriculare sinistrum):
communicates the left atrium with the right ventricle
communicates the left atrium with left ventricle
is controlled by bicuspid, mitral valve (valva atrioventricularis sinistra, valva mitralis)
is controlled by the tricuspid valve (valva atrioventricularis dextra, valva tricuspidalis)
is supported in its size by the fibrous ring (anulus fibrosus)

35 The cusps (valvulae) of the heart valvular apparatus are derivatives of:
epicardium
myocardium
endocardium
serous pericardium
fibrose pericardium

36 The papillary muscles (mm. palillares):
are located in the atria of heart
are located in the ventricles of heart
are located both in the atria and ventricles of heart
participate in closure of corresponding ostia

serve to open the corresponding ostia

37 The papillary muscles (mm. palillares):
are independent muscles in the cardiac wall
are integral components of myocardium
act on the atrioventricular (cuspid) valves
act on the semilunar valves
participate in closure of corresponding ostia

38 The papillary muscles (mm. palillares):
are independent muscles in the cardiac wall
are integral components of myocardium
act on the atrioventricular (cuspid) valves
act on the semilunar valves
participate in closure of corresponding ostia

39 Semilunar valves (valvae semilunares):
are located in the aortic orifice (ostium aortae)
are located in the ostium of pulmonary trunk (ostium trunci pulmonalis)
are located in the left atrioventricular orifice (ostium atrioventriculare sinistrum)
are located in the right atrioventricular orifice (ostium atrioventriculare dextrum)
act under the influence of blood stream only

40 The components of the conducting system of heart (complexus stimulans cordis) are among others:
atrioventricular bundle (fasciculus atrioventricularis)
sinu-atrial node (nodus sinuatrialis)
atrioventricular node (nodus atrioventricularis)
pectinate muscles (mm. pectinati)
tendinous cords (chordae tendineae)

41 The sinu-atrial node of the conducting system of heart is located:
in the right atrium wall (atrium cordis dextrum) between the orifice of the superior vena cava and right auricle
in the posterior wall of the right atrium wall (atrium cordis dextrum)
inside the interventricular septum (septum interventriculare)
inside the lower part of the interatrial septum (septum interatriale)
in the left atrial wall (atrium sinistrum)

42 Atrioventricular node of the conducting system of heart (nodus atrioventricularis) is located:
inside the lower part of the interatrial septum (septum interatriale)
in the right atrium wall (atrium cordis dextrum) to the right of the superior vena cava opening (ostium venae cavae superioris)
in the right atrium wall (atrium cordis dextrum) to the right of its auricle
inside the interventricular septum (septum interventriculare)
in the left atrial wall (atrium cordis sinistrum)

43 Atriolventricular bundle (fasciculus atriolventricularis, bundle of His) of the conducting system of heart:
ends in myocardium of ventricles with the subendocardial terminal branches (rami subendocardiales, fibres of Purkinje)
divides into right and left branches (crus dexter/sinister)
passes in the interventricular septum (septum interventriculare)
divides into anterior and posterior branches (crus anterior/posterior)
is composed of nerve fibres

44 Pericardium as a whole:
is represented by fibrous and serous components
composes the walls of pericardial cavity (cavitas pericardiaca)
is adherent to the mediastinal pleura (pars mediastinalis pleurae)
encircles the heart and initial/terminal parts of large blood vessels
continues into the endothoracic fascia (fascia endothoracica)

45 The fibrous pericardium:
is of connective tissue nature
is adherent to the mediastinal pleura (pars mediastinalis pleurae)
is attached to the serous pericardium (pericardium serosum)
continues into the adventitia of large blood vessels of greater and lesser circulations
is composed of visceral and parietal layers (lamina visceralis/parietalis)

46 The serous pericardium:
is similar in its nature to pleura and peritoneum
is similar in its nature to fasciae
is composed of visceral and parietal layers (lamina visceralis/parietalis)
is adherent to the fibrous pericardium, heart and initial/terminal parts of large blood vessels of greater and lesser circulations
forms directly the walls of pericardial cavity (cavitas pericardiaca)

47 Pericardial cavity (cavitas pericardiaca):
is located between the layers of the serous pericardium
is located between the serous and fibrous pericardium
contains the serous fluid
contains fatty tissue
encircles the heart and initial/terminal parts of large blood vessels of greater and lesser circulations

48 There are following sinuses in the pericardial cavity (sinus pericardii):
transverse sinus (sinus transversus pericardii)
oblique sinus (sinus obliquus pericardii)
costodiaphragmatic sinus (recessus costodiaphragmaticus)
costomediastinal sinus (recessus costomediastinalis)
phrenicomediastinal sinus (recessus phrenicomediastinalis)

49 The transverse sinus of pericardium (sinus transversus pericardii):
is associated with the base of heart (basis cordis)
is filled with the serous fluid
limited by the serous covering of aorta (aorta) and of pulmonary trunk
is associated with the apex of heart (apex cordis)
is bounded by the serous covering of inferior vena cava (vena cava inferior)

50 Oblique sinus of pericardium (sinus obliquus pericardii):
is associated with the diaphragmatic surface of heart (facies diaphragmatica)
is located behind the serous covering of the left atrium (atrium sinistrum)
is bounded by the serous covering of venae cavae and of pulmonary veins (vena cava sup./inf., vv. pulmonales)
is associated with the sternocostal surface of heart (facies sternocostalis)
limited by the serous covering of aorta (aorta) and of pulmonary trunk

51 Right coronary artery of heart (arteria coronaria dextra):
lies in the coronal sulcus (sulcus coronarius)
originates from the ascending aorta (pars accendens aortae)
lies in the interventricular sulcus(sulcus interventricularis)
originates from the thoracic aorta (pars thoracica aortae)
divides into two terminal branches

52 The site of coronary arteries origin is:

aortic bulb (bulbus aortae)
aortic arch (arcus aortae)
pulmonary trunk (truncus pulmonalis)
left ventricle (ventriculus sinister)
thoracic aorta (pars thoracica aortae)

53 Right coronary artery:
is a vessel of magistral type
is a vessel of terminal type
continues as posterior interventricular branch (ramus interventricularis post.)
ends giving rise to terminal branches
supplies namely the walls of the right atrium and of the right ventricle

54 Right coronary artery supplies among other parts of cardiac walls:
posterior third of interventricular septum (septum interventriculare)
posterior papillary muscle of the right ventricle (m.papillaris posterior ventriculi dextri)
posterior papillary muscle of left ventricle (m.papillaris posterior ventriculi sinistri)
anterior two thirds of the interventricular septum (septum interventriculare)
the totality of the right ventricle wall

55 Left coronary artery:
is a vessel of magistral type
is a vessel of terminal type
continues as anterior interventricular branch (ramus interventricularis ant.)
ends giving rise to two terminal branches
supplies namely the walls of the left atrium and of the left ventricle

56 The terminal branches of the left coronary artery (arteria coronaria sinistra) are:
circumflex branch (r. circumflexus)
anterior interventricular branch (r. interventricularis anterior)
posterior interventricular branch (r. interventricularis posterior)
left marginal artery (ramus marginalis sinister)
right marginal artery (ramus marginalis dexter)

57 Left coronary artery supplies among other parts of cardiac walls:
anterior two thirds of interventricular septum (septum interventriculare)

anterior papillary muscle of the right ventricle (m. papillaris anterior ventriculi dextri)
anterior papillary muscle of left ventricle (m.papillaris anterior ventriculi sinistri)
the totality of the interventricular septum (septum interventriculare)
the totality of the left ventricle wall

58 The notion of the left coronary type of heart walls blood supply means that:
the right coronary artery is absent
the left coronary artery dominates in number of branches and in its area of supply
the right coronary artery dominates in number of branches and in its area of supply
both arteries provide the balanced blood supply of the heart walls
the blood supply of the heart walls is troubled as a result of the left coronary artery underdevelopment

59 The pathways of the heart walls venous drainage are:
into the coronary sinus (sinus coronarius)
directly into the cardiac cavities
directly into the superior vena cava (v. cava superior)
directly into the inferior vena cava (v. cava inferior)
directly into the brachiocephalic veins (vv. brachicephalicae)

60 Heart veins that are tributaries of the coronary sinus (sinus coronarius) are:
middle cardiac vein (v. cardiaca media)
great cardiac vein (v. cardiaca magna)
oblique vein of the left atrium (v. obliqua atrii sinistri)
small cardiac vein (v. cardiaca parva)
anterior veins of the right ventricle (vv. ventriculi dextri anteriores)

61 Coronary sinus of heart (sinus coronarius):
is located inside of the coronary sulcus posterior part (sulcus coronarius)
opens into the right atrium (atrium cordis dextrum)
is located inside of the coronary sulcus anterior part (sulcus coronarius)
collects venous blood from the heart walls
opens into the superior vena cava (v. cava superior)

62 The veins of the heart walls that open directly into the right atrium (atrium cordis dextrum):
small cardiac veins (vv. cardiacae minimae)
anterior veins of the right ventricle (vv. ventriculi dextri anteriores)

great cardiac vein (v. cardiaca magna)
oblique vein of the left atrium (v. oblique atrii sinistri)
middle cardiac vein (v. cardiaca media)

63 The main compartments of the vascular system are:
arterial bed
venous bed
microcirculatory bed
lymphatic bed
interstitial bed

64 The greater circulation:
its initial vessel is aorta that originates from the left ventricle (ventriculus sinister)
its terminal vessels are venae cavae that open into the right atrium (atrium dextrum)
its initial vessel is aorta that originates from the right ventricle (ventriculus dexter)
its terminal vessels are venae cavae that open into the right ventricle (ventriculus dexter)
does not function in foetal life

65 The lesser circulation:
its initial vessel is aorta that originates from the right ventricle (ventriculus dexter)
its initial vessel is pulmonary trunk that originates from the right ventricle (ventriculus dexter)
its terminal vessels are venae cavae that open into the right atrium (atrium dextrum)
its terminal vessels are pulmonary veins (venae pulmonales) that open into the left atrium (atrium sinistrum)
does not function in foetal life

66 Aorta:
is the initial vessel in greater circulatuion
is the vessel of magistral type
is the vessel of terminal type
is the main axial artery in human bod
terminates in the pelvic cavity

67 Aorta:
originates from the left ventricle (ventriculus sinister)
originates from the right ventricle (ventriculus dexter)
is located mostly in the posterior mediastinum and the retroperitoneal space

terminates at the level of L4
terminates at the level of S2

68 The brachiocephalic trunk (truncus brachiocephalicus):
is an artery, branch of ascending aorta (aorta ascendens)
is a vein giving origin to the superior vena cava (v. cava superior)
is located in the superior mediastinum
is a paired vessel
is an unpaired vessel

69 The branches of the brachiocephalic trunk (truncus brachiocephalicus) are:
right subclavian artery (a.subclavia dextra)
right common carotid artery (a.carotis communis dextra)
left subclavian artery (a.subclavia sinistra)
left common carotid artery (a.carotis communis sinistra)
right internal thoracic artery (a.thoracica interna)

70 The common carotid artery (a.carotis communis):
is a vessel of terminal type
is a vessel of magistral type
bifurcates at the level of the superior edge of thyroid cartilage (cartilage thyroidea)
bifurcates at the level of the jugular notch of sternum (incisura jugularis sterni)
does not possess usually any collateral branches

71 Aortic arch branches (arcus aortae) are:
brachiocephalic trunk (truncus brachiocephalicus)
left common carotid artery (a.carotis communis sinistra)
left subclavian artery (a.subclavia sinistra)
right subclavian artery (a.subclavia dextra)
right common carotid artery (a.carotis communis dextra)

72 The anterior branches of the external carotid artery (a.carotis externa) are:
facial artery (a.facialis)
lingual artery (a.lingualis)
superior thyroid artery (a.thyroidea superior)
maxillary artery (a.maxillaris)

superficial temporal artery (a.temporalis superficialis)

73 The medial branches of the external carotid artery (a.carotis externa) are:
ascending pharyngeal artery (a.pharyngea ascendens)
superficial temporal artery (a.temporalis superficialis)
maxillary artery (a.maxillaris)
ascending palatine artery (a.palatina ascendens)
facial artery (a.facialis)

74 The terminal branches of the external carotid artery (a.carotis externa) are:
superficial temporal artery (a.temporalis superficialis)
maxillary artery (a.maxillaris)
facial artery (a.facialis)
middle meningeal artery (a. meningea media)
superior thyroid artery (a.thyroidea superior)

75 The vessels that give directly rise to the thyroid arteries (aa.thyroideae sup., inf.) are:
brachiocephalic trunk (truncus brachiocephalicus)
external carotid artery (a.carotis externa)
vertebral artery (a.vertebralis)
thyrocervical trunk (truncus thyrocervicalis)
subclavian artery (a.subclavia)

76 The branches of the facial artery (a.facialis) among others are:
angular artery (a.angularis)
inferior labial artery (a.labialis inferior)
superior labial artery (a.labialis superior)
dorsal artery of the nose (a.dorsalis nasi)
transverse facial artery (a.transversa faciei)

77 The facial artery (a.facialis):
is a branch of external carotid artery (a.carotis externa)
is a branch of maxillary artery (a.maxillaris)
crosses in its course the zygomatic arch (arcus zygomaticus)
crosses in its course the edge of mandible (mandibula)
anastomoses with the branches of the ophthalmic artery (a. ophthalmica)

78 The terminal branch of the facial artery (a.facialis) is:
angular artery (a.angularis)
ophthalmic artery (a.ophthalmica)
supratrochlear artery (a.supratrochlearis)
supraorbital artery (a.supraorbitalis)
maxillary artery (a.maxillaris)

79 The facial artery (a.facialis) anastomoses with:
branches of the ophthalmic artery (a.ophthalmica)
branches of superficial temporal artery (a.temporalis superficialis)
branches of the subclavian artery (a.subclavia)
branches of the basilar artery (a.basilaris)
does not participate in the formation of anastomoses

80 In facial hemorragy the arterial bleeding may be stopped by squeezing of the facial artery (a.facialis) to:
the lower edge of mandible at the level of its angle (angulus mandibulae)
the zygomatic arch (arcus zygomaticus)
the lower edge of mandible at the level of its angle (angulus mandibulae)
the lower edge of mandible at the level of the anterior border masseter insertion
the mandible at the level of its mental tubercle (tuberculum mentale)

81 Soft tissues of the face are supplied with blood by:
facial artery (a.facialis)
maxillary artery (a.maxillaris)
supraorbital artery (a.supraorbitalis)
vertebral artery (a.vertebralis)
subclavian artery (a.subclavia)

82 The course of the facial artery (a.facialis):
from the lower edge of mandible to the medial corner of the eye
parallel to the zygomatic arch and below it
from the angle of the mandible to the lateral corner of the eye
from the mental foramen to the lower lip
from the supercilliary arch to the medial corner of the eye

83 The maxillary artery (a.maxillaris) supplies via its branches among other objects:
the soft tissues of a face
tongue (lingua)
upper and lower teeth
dura mater cranialis
brain

84 The maxillary artery (a.maxillaris) supplies or participates in supply via its branches among other objects:
the masticatory muscles (mm. masticatorii)
the walls of certain paranasal sinuses (sinus paranasales)
the walls of nasal cavity (cavitas nasi)
the soft palate and the walls of pharynx
the walls of larynx

85 The middle meningeal artery (a.meningea media):
arises from the maxillary artery (a.maxillaris) in the infratemporal fossa (fossa infratemporalis)
arises from the external carotid artery (a. carotis externa)
arises from the facial artery (a. facialis) in the submandibular fossa (fossa submandibularis)
enters the cranial cavity through foramen spinosum
supplies the cranial dura mater (dura mater cranialis)

86 The maxillary artery (a.maxillaris) in the pterygopalatine fossa (fossa pterygopalatina) gives rise to:
sphenopalatine artery (a.sphenopalatina)
descending palatine artery (a.palatina descendens)
infraorbital artery (a.infraorbitalis)
middle meningeal artery (a.meningea media)
superficial temporal artery (a.temporalis superficialis)

87 The blood supply of the upper teethis provided by the direct branches of:
maxillary artery (a.maxillaris)
infraorbital artery (a.infraorbitalis)
descending palatine artery (a.palatina descendens)
sphenopalatine artery (a.sphenopalatina)
mental artery (a.mentalis)

88 The maxillary artery (a.maxillaris) in its coursein the infratemporal fossa (fossa infratemporalis) gives rise among others to:

inferior alveolar artery (a.alveolaris inferior)
middle meningeal artery (a.meningea media)
superior posterior alveolar artery (a. alveolaris superior posterior)
buccal artery (a.buccalis)
lingual artery (a.lingualis)

89 In certain cases the arterial bleeding in a head may be reduced by squeezing of the superficial temporal artery (a.temporalis superficialis) to:
the zygomatic bone (os zygomaticum)
the most anterior part of the zygomatic arch (arcus zygomaticus)
the most posterior part of the zygomatic arch (arcus zygomaticus)
the mastoid process (processus mastoideus)
the angle of mandible (angulus mandibulae)

90 The branches of the superficial temporal artery (a.temporalis superficialis) are among others:
parotid branches (rr.parotidei)
frontal branch (r.frontalis)
parietal branch (r.parietalis)
transverse facial artery (a.transversa faciei)
infraorbital artery (a.infraorbitalis)

91 The superficial temporal artery (a.temporalis superficialis) is:
the terminal branch of external carotid artery (a.carotis externa)
the collateral branch of external carotid artery (a.carotis externa)
the terminal branch of facial artery (a.facialis)
the collateral branch of facial artery (a.facialis)
the terminal branch of deep temporal artery (a.temporalis profunda)

92 The system of superficial temporal artery (a.temporalis superficialis) provides or participates in blood supply of:
the soft tissues of the frontal and parietal regions
the soft tissues of the temporal region
the parotid gland (glandula parotidea)
the auricle and external acustic meatus (auricula, meatus acusticus externus)
the eyeball (bulbus oculi)

93 Parts of the internal carotid artery (a.carotis interna):

cerebral (pars cerebralis)
cavernous (pars cavernosa)
petrous (pars petrosa)
cervical (pars cervicalis)
submandibular part (pars submandibularis)

94 The internal carotid artery (a.carotis interna):
is a terminal brahch of the common carotid artery (a.carotis communis)
is a collateral brahch of the common carotid artery (a.carotis communis)
passes into cranial cavity through the petrous part of temporal bone (pars petrosa)
passes into cranial cavity through foramen magnum
in the cranial cavity is partly surrounded by the cavernous sinus (sinus cavernosus)

95 The branch(es) of the petrous part of the internal carotid artery (a.carotis interna) is/are:
caroticotympanic arteries (aa.caroticotympanicae)
anterior cerebral artery (a.cerebri anterior)
anterior ethmoid artery (a.ethmoidalis anterior)
angular artery (a.angularis)
ophthalmic artery (a.ophthalmica)

96 The internal carotid artery (a.carotis interna) arises from the common carotid artery:
at the level of the superior edge of thyroid cartilage
at level of the 1-st rib
at the level of the inferior edge of the thyroid cartilage
at the level of mandibular angle
at the level of the foramen magnum

97 The branch(es) of the internal carotid artery (a.carotis interna) is/are among others:
ophthalmic artery (a.ophthalmica)
middle cerebral artery (a. cerebri media)
posterior cerebral artery (a. cerebri posterior)
infraorbital artery (a. infraorbitalis)
anterior cerebral artery (a. cerebri anterior)

98 Branches of the ophthalmic artery (a.ophthalmica) are among others:
lacrimal artery (a.lacrimalis)

central retinal artery (a.centralis retinae)
supratrochlear artery (a.supratrochlearis)
supraorbital artery (a.supraorbitalis)
infraorbital artery (a.infraorbitalis)

99 The branches of the ophthalmic artery (a.ophthalmica) are among others:
central retinal artery (a.centralis retinae)
supratrochlear artery (a.supratrochlearis)
supraorbital artery (a.supraorbitalis)
middle meningeal artery (a.meningea media)
transverse facial artery (a.transversa faciei)

100 Ophthalmic artery (a.ophthalmica) is a branch of:
internal carotid artery (a.carotis interna)
external carotid artery (a.carotis externa)
facial artery (a.facialis)
superficial temporal artery (a.temporalis superficialis)
maxillary artery (a.maxillaris)

101 Ophthalmic artery (a.ophthalmica):
is a branch of internal carotid artery (a.carotis interna) in its cerebral part
is a branch of internal carotid artery (a.carotis interna) in its petrous part
is a branch of maxilla artery (a.facialis) in its pterygopalatine part
enters the orbit through the optic canal (canalis opticus)
enters the orbit through the inferior orbital fissure (fissura orbitalis inferior)

102 Ophthalmic artery (a.ophthalmica) supplies or participates in blood supply via its branches:
eyeball (bulbus oculi) and its muscles
lacrymal gland (glandula lacrymalis)
walls of the nasal cavity (cavitas nasi)
eyelids (palpebrae)
parotid gland (glandula parotidea)

103 The facts of particular clinical importance are that:
the central retinal artery (a.centralis retinae) is the only arterial vessel suppling via its branches the totality of the retina
the system of the central retinal artery (a.centralis retinae) is deprived of any anastomoses with the orther arteries of eyeball and

becomes very vulnerable
the system of the central retinal artery (a.centralis retinae) is rich in anastomoses and may be easly compensated in vascular troubles
the state of the retinal vessels may be directly estimated in ophthalmoscopy

the state of the retinal vessels demonstrates the overall state of the vascular bed of the body

104 Anterior communicating artery (a.communicans anterior) connects directly:
right and left anterior cerebral arteries (aa.cerebri anterior dextra et sinistra)
anterior and middle cerebral arteries (aa.cerebri anterior et media)
middle and posterior cerebral arteries (aa.cerebri posterior et media)
right and left internal carotid arteries (aa.carotis internae dextra et sinistra)
internal and external carotid arteries (aa.carotis interna et externa)

105 The terminal branches of the basilar artery (a.basilaris):
posterior cerebral arteries (aa.cerebri post.)
middle cerebral arteries (aa.cerebri med.)
superior cerebellar arteries (aa.cerebellares sup.)
ophthalmic artery (a.ophthalmica)
superficial temporal artery (a.temporalis superficialis)

106 The cerebral arterial circle of Willis (circulus arteriosus cerebri) is composed of:
anterior communicating artery (a.communicans anterior)
anterior cerebral arteries (aa.cerebri ant.)
posterior cerebral arteries (aa.cerebri post.)
posterior communicating arteries (aa.communicantes anterior)
superior cerebellar arteries (aa.cerebellares sup.)

107 The arterial blood supply of a brain is provided by:
the system of the left internal carotid artery (a. carotis interna dextra)
the system of the right internal carotid artery (a. carotis interna sinistra)
the vertebrobasilar system (aa.vertebrales, a.basilaris)
the system of the right external carotid artery (a. carotis externa sinistra)
the system of the left external carotid artery (a. carotis externa sinistra)

108 The systems of both internal carotid arteries (aa. carotis internae) supply:

the totality of the brain (encephalon)
the totality of the telencephalon
the totality of the brainstem (truncus encephali)
the frontal, parietal and partly temporal and occipital lobes of hemispheria
the eyeballs, basal nuclei and diencephalon

109 The vertebrobasilar system (aa.vertebrales, a.basilaris) supplies:
the totality of the brainstem (truncus encephali)
cerebellum
certain parts of temporal and occipital lobes of one cerebral hemispherium
certain parts of temporal and occipital lobes of both cerebral hemispheria
the cervical segments of the spinal cord (medulla spinalis)

110 The main cerebral arteries (aa. cerebri ant., med., post.):
take their origins inside of the cranial cavity
are the terminal branches of their initial vessels
are the collateral branches of their initial vessels
follow their course and ramify in the subarachnoid space (spatium subarachnoideum)
follow their course and ramify inside of the brain matter

111 The subclavian artery (a. subclavia):
is a vessel of terminal type
is a vessel of magistral type
originates fromthe aortic arch on the left and from brachiocephalic trunk on the right
originates from the aortic arch on the right and from brachiocephalic trunk on the left
provides the blood supply of the upper limb, neck and brain

112 The subclavian artery (a.subclavia) is located in its course:
in the superior mediastinum
in the posterior mediastinum
inside of the interscalenic space (spatium interscalenum)
on the 1-st rib (costa prima) outside of the interscalenic space (spatium interscalenum)
in the antescalenic space (spatium antescalenum)

113 The branches that arise from the subclavian artery (a.subclavia) before it enters the interscalenic space are:
internal thoracic artery (a.thoracica interna)

thyrocervical trunk (tr.thyrocervicalis)
costocervical trunk (truncus costocervicalis)
deep cervical artery (a.cervicalis profunda)
vertebral artery (a.vertebralis)

114 The branches of thyrocervical trunk (tr.thyrocervicalis) are:
suprascapular artery (a.suprascapularis)
inferior thyroid artery (a.thyroidea inferior)
ascending cervical artery (a.cervicalis ascendens)
vertebral artery (a.vertebralis)
superior thyroid artery (a.thyroidea superior)

115 Inferior thyroid artery (a.thyroidea inferior):
is a branch of thyrocervical trunk (tr.thyrocervicalis)
belongs to the system of subclavian artery (a. subclavia)
belongs to the system of external carotid artery (a. carotis externa)
supplies via its branches the organs of the neck
supplies via its branches the thyroid gland only (glandula thyroidea)

116 The vertebral artery (a.vertebralis):
is a collateral branch of subclavian artery (a. subclavia)
is in closest interrelationship with the cervical vertebral column (columna vertebralis) being contained in vertebral canal
is of great importance in blood supply of the central nervous system
is in closest interrelationship with the cervical vertebral column (columna vertebralis) being contained in its foramina transversaria
terminates with bifurcation

117 There are following parts of the vertebral artery (a.vertebralis):
prevertebral part (pars prevertebralis)
cervical part (pars cervicalis, transversaria)
atlantic part (pars atlantica)
intracranial part (pars intracranialis)
intracerebral part (pars intracerebralis)

118 The direct branches of the intracranial part of vertebral artery (a.vertebralis) are:
anterior spinal artery (a.spinalis ant.)
posterior inferior cerebellar artery (a.cerebellaris post.inf.)

posterior spinal artery (a. spinalis post.)
superior cerebellar artery (a.cerebellaris sup.)
posterior cerebral artery (a. cerebri post.)

119 The basilar artery (a.basilaris):
is a vessel of terminal type
is a vessel of magistral type
terminates with bifurcation giving rise to posterior cerebral arteries (aa.cerebri post.)
composes the vertebrobasilar arterial system of a brain together with the vertebral arteries (aa.vertebrales)
supplies via its branches the posterior 2/3-rds of a brain

120 The branch(es) of subclavian artery (a.subclavia) originating in the interscalenic space is/are:
costocervical trunk (tr.costocervicalis)
superficial cervical artery (a.cervicalis superficialis)
supraclavicular artery (a.supraclavicularis)
thyrocervicaltrunk (tr.thyrocervicalis)
transverse cervical artery (a.transversa colli)

121 The main venous trunks in a head and neck are:
internal jugular veins (vv. jugulares int.)
external jugular veins (vv. jugulares ext.)
common jugular veins (vv. jugulares communes)
brachiocephalic veins (vv.brachiocephalicae)
axillary veins (vv.axillares)

122 The internal jugular vein (v. jugularis int.):
takes its origin inside of the cranial cavity via the fusion of cerebral veins
takes its origin in the neck via the fusion of cervical veins
takes its origin at level of jugular foramen (foramen jugulare) as a prolongement of the sigmoid venous sinus (sinus sigmoideus)
takes its origin at level of foramen magnum as a prolongement of the main cerebral veins
is the main vessel providing the venous outflow from the brain

123 The internal jugular vein (v. jugularis int.):
is a component of main vasculonervous bundle of the neck
accompanies the common carotid artery (a. carotis int.) and vagus nerve (n. vagus)
accompanies the vertebral artery (a. vertebralis)

with the accompanied artery is contained in a common fascial vagina
belongs to the system of superior vena cava (v. cava sup.)

124 The internal jugular vein (v. jugularis int.):
terminates by fusion with the similar vein of the opposite side to form the trunk of superior vena cava (v. cava sup.)
terminates by fusion with the subclavian vein (v.subclavia) to form the brachiocephalic vein (v. brachiocephalica)
terminates by fusion with the external jugular vein (v.jugularis ext.) to form the brachiocephalic vein (v. brachiocephalica)
has no tributaries in the neck
participates in venous outflow from the cervical organs

125 Thyroid veins (vv.thyroideae) are tributaries of:
internal jugular veins (vv.jugulares int.)
brachiocephalic veins (vv.brachiocephalicae)
external jugular veins (vv.jugulares ext.)
facial veins (vv.faciales)
superficial temporal veins (vv.temporales superficiales)

126 Tributaries of the external jugular vein (v.jugularis ext.) are among others:
suprascapular vein (v.suprascapularis)
transverse cervical vein (v.transversa colli)
facial vein (v.facialis)
lingual vein (v.lingualis)
subclavian vein (v.subclavia)

127 Ophthalmic veins (vv.ophthalmicae):
are contain bed in the orbit
collect the venous blood from the eyeball and the other content of the orbit
are in number of two in every orbit
are tributaries of the internal jugular vein system
are tributaries of the external jugular vein system

128 Ophthalmic veins (vv.ophthalmicae) open into:
cavernous sinus (sinus cavernosus)
anterior jugular vein (v.jugularis ant.)
superficial temporal vein (v.temporalis superficialis)
sigmoid sinus (sinus sigmoideus)

facial vein (v.facialis)

129 The famous venous anastomosis described as "anastomose of the inner angle of the eye":
is located in the skin and the soft tussues of this region
represents a peripheral connection of the superior ophthalmic and facial veins roots (v. ophthalimaca sup., v. facialis)
is an intersystemic anastomosis of the internal and external jugular veins systems (v. jugularis int., v. jugularis ext.)
may serve to be a pathway of vitally dangerous inflammatory propagation from the face onto the intracranial contents
is an intrasystemic anastomosis of the internal jugular vein roots

130 The intracranial venous bed:
is represented by the cerebral veins, their roots, the meningeal veins and dural venous sinuses (vv. cerebri, vv. meningeae, sinus durae matri)
possesses the transcranial connections with the extracranial superficial veins
is drained almost totally into the internal jugular vein system (v. jugularis int.)
is drained equally into the internal and external jugular veins systems (v. jugularis int., v. jugularis ext.)
is deprived of any transcranial communications

131 The transcranial connections of the intracranial venous bed:
communicate mostly the dural venous sinuses (sinus durae matris) with extracranial superficial veins
are represented mostly by the emissary veins (vv. emissariae)
participate in regulation of intracranial venous pressure
may serve to be a pathway of vitally dangerous inflammatory propagation from the superficial soft tissues of a head onto the intracranial venous bed
are accompanied with the corresponding arterial connections

132 The emissary veins (vv.emissariae):
are very short veins that pierce the bones of neurocranium
are the important transcranial connections of the intracranial venous bed
join the dural venous sinuses (sinus durae matris) and extracranial superficial veins
are represented notably by parietal, mastoid, condylar veins (vv. parietalis, mastoidea, condylaris)
disappear in aging

133 Diploic veins (vv.diploici):
are very short veins that pierce the bones of neurocranium
are the particular venous vessels situated between the tables (laminae) of neurocranial bones
play role of elongated anastomoses of dural venous sinuses (sinus durae matris) with the extracranial veins

participate in blood supply of cranial bones
occupy the diploic canals of cranial bones (canales diploici)

134 The extracranial tributaries of the internal jugular vein (v.jugularis int.) are:
lingual vein (v.lingualis)
pharyngeal veins (vv.pharyngeae)
facial vein (v.facialis)
superior thyroid vein (v.thyroidea sup.)
anterior jugular vein (v.jugularis ant.)

135 The cerebral veins (vv. encephali):
are classified as superficial and deep
are all the tributaries of the internal jugular vein system (v.jugularis int.)
open initially into the dural venous sinuses (sinus durae matris)
open directly into the trunk the internal jugular vein (v.jugularis int.)
possess the numerous direct anastomoses with the extracranial venous bed

136 The great cerebral vein (v. magna cerebri, Galen's vein):
is the main collector of the superficial cerebral veins
is the main collector of the deep cerebral veins
opens directly into the trunk the internal jugular vein (v.jugularis int.)
open directly into the stright dural sinus (sinus rectus)
results from a fusion of two internal cerebral veins (vv. internae cerebri) contained in the choroid tela of the 3-rd ventricle

140 On the left the subclavian artery (a.subclavia) originates from:
aortic arch (arcus aortae)
brachiocephalic trunk (tr.brachiocephalicus)
common carotid artery (a.carotis communis)
thoracic aorta (pars thoracica aortae)
ascending part of aorta (pars ascendens aortae)

141 On the right the subclavian artery (a. subclavia) originates from:
brachiocephalic trunk (tr.brachiocephalicus)
common carotid artery (a.carotis communis)
aortic arch (arcus aortae)
thoracic aorta (pars thoracica aortae)

ascending part of aorta (pars ascendens aortae)

142 The parietal branches of the thoracic part of aorta are:
superior phrenic arteries (aa.phrenicae sup.)
bronchial branches (rr.bronchiales)
oesophageal branches (rr.oesophageales)
pericardial branches (rr.pericardiaci)
posterior intercostal arteries (aa.intercostales post.)

143 Every of the posterior intercostal arteries being in its nature a segmental vessel gives rise to:
superior, middle and inferior branches
medial, intermedial and lateral branches
anterior, posterior and spinal branches
parietal and visceral branches
superficial, intermedial and deep branches

144 The posterior intercostal arteries provide or participate in blood supply of:
anterolateral thoracic wall
anterolateral abdominal wall
skin and muscles of a back
spinal cord and spinal meninges
intrathoracic organs

145 The descending aorta (pars descendens aortae):
is a prolongement of the aortic arch (arcus aortae)
is represented by thoracic and abdominal parts (pars thoracica, pars abdominalis aortae)
is contained in the posterior mediastinum and retroperitoneal space (mediastinum post., spatium retroperitoneale)
is a vessel of the magistral type
terminates in the lesser pelvis (pelvis minor) by bifurcation

146 The internal thoracic artery (a.thoracica interna) arises from:
subclavian artery (a.subclavia)
internal carotid artery (a.carotis interna)
external carotid artery (a.carotis externa)
axillary artery (a.axillaris)
brachial artery (a.brachialis)

147 The system of the internal thoracic artery (a.thoracica interna) provides or participates in blood supply of:
lungs (pulmones)
anterior thoracic wall
anterior abdominal wall
mammary glands (glandulae mammariae)
pericardium and diaphragm

148 The terminal branches of the internal thoracic artery (a.thoracica interna) are:
musculophrenic artery (a.musculophrenica)
superior epigastric artery (a. epigastrica sup.)
pericardiacophrenic artery (a.pericardiacophrenica)
superior phrenic artery (a.phrenica sup.)
inferior epigastric artery (a. epigastrica inf.)

149 The parietal branch/es of the abdominal aorta is/are:
inferior phrenic artery (a. phrenica inf.)
lumbar arteries (aa.lumbales)
suprarenal arteries (aa. suprarenales)
median sacral artery (a.sacralis mediana)
ileal arteries (aa.ileales)

150 The abdominal aorta (pars abdominalis aortae):
is retroperitoneally located
terminates by bifurcation at the level of L4
terminates by bifurcation at the level of S1
is located on the right to the inferior vena cava
is located on the left to the inferior vena cava

151 Blood supply of the diaphragm is carried out by:
superior phrenic arteries (aa.phrenicae sup.)
inferior phrenic arteries (aa.phrenicae inf.)
pericardiacophrenic arteries (aa.pericardiacophrenicae)
lower posterior intercostal arteries (aa.intercostales post.)
superior mesenteric artery (a.mesenterica sup.)

152 The paired visceral branches of abdominal aortae are:
renal artery (a. renalis)
testicular/ovarian artery (a. testicularis/ovarica)
middle suprarenal artery (a. suprarenalis media)
inferior phrenic artery (a.phrenica inf.)
inferior mesenteric artery (a.mesenterica inf.)

153 The unpaired visceral branches of abdominal aortae are:
coeliac trunk (truncus coeliacus)
superior mesenteric artery (a.mesenterica sup.)
splenic artery (a. splenica)
inferior mesenteric artery (a.mesenterica inf.)
middle suprarenal artery (a. suprarenalis media)

154 The system of the coeliac trunk (truncus coeliacus) provides the blood supply of:
stomach and duodenum (gaster, duodenum)
pancreas and spleen (pancreas, splen)
liver and kidney (hepar, ren)
liver and gallbladder (hepar, vesica biliaris)
abdominal part of oesophagus (pars abdominalis oesophagei)

155 The coeliac trunk (truncus coeliacus):
is a vessel of terminal type
takes its origin retroperitoneally at the level of Th12 from aorta
takes its origin retroperitoneally at the level of L1 and is one of the roots of hepatic portal vein (v. portae hepatis)
realizes the arterial supply of a number of abdominal organs
realizes the venous outflow into the hepatic portal vein (v. portae hepatis) from a number of abdominal organs

156 The left gastric artery (a. gastrica sin.):
belongs to the coeliac trunk system
comes to the cardia of a stomach (cardia, pars cardiaca)
supplies stomach and abdominal part of oesophagus
possesses anastomoses with other gastric arteries
follows the greater curvature of stomach (curvatura major)

157 The hepatic artery proper (a. hepatica propria):

belongs to the coeliac trunk system
is a vessel of terminal type
terminates inside the liver giving rise to eight terminal branches
terminates outside the liver giving rise to two terminal branches
supplies liver and gallbladder (hepar, vesica biliaris)

158 The gastroduodenal artery (a. gastroduodenalis):
is the coeliac trunk branch (truncus coeliacus) of the 2-nd order
is the common hepatic artery branch (a. hepatica communis) of the 1-st order
supplies stomach, duodenum, pancreas
lies behind the first part of duodenum
lies anteriorly to the first part of duodenum

159 The splenic artery (a. splenica, lienalis):
is the coeliac trunk branch (truncus coeliacus) of the 1-st order
lies retroperitoneally along the superior border of pancreas
supplies stomach, spleen, pancreas (gaster, splen/lien, pancreas)
gives rise to the both gastro-omental arteries (aa. gastro-omentales dext., sin.)
having no any anastomoses is different from other coeliac branches

160 The lesser curvature of a stomach (curvatura major) is followed by:
left gastric artery (a. gastrica sin.)
right gastric artery (a. gastrica dext.)
right gastro-omental artery (a. gastro-omentalis dext.)
left gastro-omental artery (a. gastro-omentalis sin.)
short gastric arteries (aa. gastricae breves)

161 The hepatic artery proper (a. hepatica propria) arrives to the liver:
retroperitoneally
inside the lesser omentum (omentum minus)
inside the greater omentum (omentum majus)
via the hepatoduodenal ligament (lig. hepatoduodenale)
via the hepatophrenic ligament (lig. hepatophrenicum)

162 The most peripheral intrahepatic ramifications of the hepatic artery proper (a. hepatica propria):
form in the liver an independent microvascular bed

join the most peripheral intralobular ramifications of the hepatic portal vein (v. portae hepatis)
connect directly the hepatic artery proper system with the roots of the hepatic veins (vv. hepaticae)
connect directly the hepatic artery proper system with the roots of the hepatic bile ducts (ductus hepatici)
connect directly the hepatic artery proper system with the lymphatic microvascular bed

163 The arterial supply of pancreas is provided from:
the system of common hepatic artery (a. hepatica communis)
the system of splenic/lienal artery (a. splenica/lienalis)
the system of superior mesenteric artery (a. mesenterica sup.)
the system of of inferior mesenteric artery (a. mesenterica inf.)
directly from the abdominal aorta

164 The superior mesenteric artery (a. mesenterica sup.):
originates at the level of L1 from abdominal aorta
originates from the coeliac trunk (truncus coeliacus) at the level of Th12
follows in the root of mesentery (radix mesenterii)
supplies the totality of intestine (intestinum)
supplies the small intestine and part of the large one (intestinum tenue, crassum)

165 The branches of the superior mesenteric artery (a. mesenterica sup.) are among others:
right colic artery (a. colica dext.)
left colic artery (a. colica sin.)
middle colic artery (a. colica media)
ileocolic artery (a. ileocolica)
ileal arteries (aa.ileales)

166 The branches of the inferior mesenteric artery (a. mesenterica inf.) are among others:
inferior pancreaticoduodenal artery (a. pancreaticoduodenalis inf.)
middle colic artery (a. colica media)
left colic artery (a. colica sin.)
superior rectal artery (a. rectalis sup.)
ileocolic artery (a. ileocolica)

167 The inferior mesenteric artery (a. mesenterica inf.):
is classified as a paired branch of abdominal aorta
is a branch of coeliac trunk (truncus coeliacus):

arises at the level of L3
is the main artery for the pelvic organs
supplies only a part of the large intestine (intestinum crassum)

168 Renal arteries (aa. renales):
are paired visceral branches of abdominal aorta
originate at the level of L2
are located retroperitoneally
give rise to the miraculous arterial network of kidney (rete mirabile arteriosum)
give rise to the miraculous venous network of kidney (rete mirabile venosum)

169 The notion of the miraculous arterial network of kidney (rete mirabile arteriosum) signifies that:
efferent vessels issuing from the renal capillary glomeruli are arterioles in their nature
terminal renal arterioles transform directly into venules
mode of renal artery branching is quite unusual
capillary network in the renal cortex is double in its construction
renal veins carry arterial blood

170 Azygos vien is a continuation of:
right ascending lumbar vein (v.lumbalis ascendens dextra)
inferior vena cava (v. cava inf.)
hemiazygos vein (v. hemiazygos)
paraumbilical vein (v. paraumbilicalis)
testicular vein (v. testicularis)

171 Hemiazygos vien (v.hemiazygos) is a continuation of:
left ascending lumbar vein (v.lumbalis ascendens sin.)
inferior vena cava (v. cava inf.)
azygos vein (v. azygos)
paraumbilical vein (v. paraumbilicalis)
internal thoracic vein (v. thoracica interna)

172 The components of the the azygos vein system (v.azygos) are among others:
hemiazygos vein (v.hemiazygos)
posterior intercostal veins (vv.intercostales post.)
oesophageal veins (vv. oesophageales)

hepatic veins (vv. hepaticae)
internal thoracic vein (v.thoracica interna)

173 The azygos vein (v.azygos) is a component of the:
superior vena cava system (v.cava sup.)
inferior vena cava system (v.cava inf.)
hepatic portal vein system (v.portae hepatis)
brachiocephalic vein system (v.brachiocephalica)
internal jugular vein system (v.jugularis int.)

174 The tributaries of the hemiazygos vein (v.hemiazygos) are among others:
accessory hemiazygos vein (v.hemiazygos acessoria)
left posterior intercostal veins (vv.intercostales post.)
right posterior intercostal veins (vv.intercostales post.)
oesophageal veins (vv. oesophageales)
internal thoracic vein (v.thoracicainterna)

175 Every of the posterior intercostal veins being a segmental vessel in its nature assures the venous outflow from:
anterolateral thoracic wall
posterior thoracic wall
muscles and skin of the back
internal and external vertebral venous plexuses (plexus venosus vertebralis int., ext.)
organs contained in mediastinum

176 The parietal tributaries of the inferior vena cava (v.cava inf.) are:
inferior phrenic veins (vv.phrenicae inf.)
superior phrenic veins (vv.phrenicae sup.)
hepatic veins (vv.hepaticae)
iliolumbar veins (vv.iliolumbales)
lumbar veins (vv.lumbales)

177 The visceral tributaries of the inferior vena cava (v.cava inf.) are:
renal veins (vv.renales)
ovarian/testicular veins (vv.ovaricae/testiculares)
hepatic veins (vv.hepaticae)
hepatic portal vein (v.portae hepatis)

inferior mesenteric vein (v.mesenterica inf.)

178 Every of the lumber veins (vv.lumbales) being a segmental vessel in its nature assures the venous outflow from:
lateral abdominal wall
posterior abdominal wall
muscles and skin of the back
internal and external vertebral venous plexuses (plexus venosus vertebralis int., ext.)
retroperitoneal abdominal organs

179 Lumbar veins form with the roots of the superior vena cava (v.cava sup.) the cava-caval anastomoses:
at the posterior abdominal wall
inside the anterior abdominal wall
inside the vertebral canal (canalis vertebralis)
in the walls of the small intestine (intestinum tenue)
in the walls of the large intestine (intestinum crassum)

180 The outflow of blood from the diaphragm is carried out into the system of:
inferior vena cava (v.cava inferior)
superior vena cava (v.cava superior)
hepatic portal vein (v.portae hepatis)
internal jugular veins (vv.jugulares int.)
pulmonary veins (vv. pulmonales)

181 In the thickness of the anterior abdominal wall a cava-caval anastomosis is formed between:
superior et inferior epigastric veins (vv.epigastricae sup., inf.)
azygos, hemiazygos and lumbar veins (v.azygos, v.hemiazygos, vv.lumbales)
superior epigastric (v.epigastrica sup.) and paraumbilical veins (vv.paraumbilicales)
oesophageal veins (vv.oesophageales) and left gastric vein (v.gastrica sin.)
superior and inferior mesenteric vein (vv. mesentericae sup., inf.)

182 At the posterior abdominal wall a cava-caval anastomosis is formed between:
azygos, hemiazygos veins (v.azygos, v.hemiazygos) and lumbar veins (vv.lumbales)
superior et inferior epigastric veins (vv.epigastricae sup., inf.)
oesophageal veins (vv.oesophageales) and left gastric vein (v.gastrica sin.)
inferior and superior rectal veins (vv.rectales inf., sup.)
superior epigastric and paraumbilical veins (v.epigastrica sup., vv.paraumbilicales)

183 In the formation of cava-caval anastomosis within the vertebral canal participate:
posterior intercostal veins (vv. intercostales post.)
lumbar veins (vv.lumbales)
internal vertebral venous plexus (plexus venosus vertebralis int.)
superior epigastric veins (vv.epigastricae sup.)
left gastric vein (v.gastrica sin.)

184 The components of the superior vena cava system (v.cava sup.) are among others:
superior epigastric veins (vv.epigastricae sup.)
internal jugular veins (vv.jugulares int.)
azygos vein (v.azygos)
lumbar veins (vv.lumbales)
left gastric vein (v.gastrica sin.)

185 The system of the superior vena cava (v.cava sup.) includes among others:
hemiazygos vein (v.hemiazygos)
subclavian veins (vv.subclaviae)
brachiocephalic veins (vv.brachiocephalicae)
pulmonary veins (vv.pulmonales)
hepatic veins (vv.hepaticae)

186 The inferior vena cava system (v.cava inf.) includes among other components:
inferior epigastric veins (vv.epigastricae inf.)
internal iliac veins (vv. iliacae int.)
testicular/ovarien veins (vv.testiculares/ovaricae)
inferior mesenteric vein vein (v.mesenterica)
hepatic veins (vv.hepaticae)

187 The direct tributaries of the inferior vena cava (v.cava inf.) are:
lumbar veins (vv.lumbales)
renal veins (vv.renales)
hepatic portal vein (v.portae hepatis)
superior rectal vein (v.rectalis sup.)
common iliac veins (vv.iliacae communes)

188 The veins which participate in a porto-caval anastomosis in the thickness of the anterior abdominal wall are:
superior epigastric veins (vv.epigastricae sup.)
inferior epigastric veins (vv.epigastricae inf.)
paraumbilical veins (vv.paraumbilicales)
oesophageal veins (vv.oesophageales)
superficial veins of the anterior wall of trunk

189 The veins which participate in a porto-caval anastomosis in the area of gastric cardia are:
oesophageal veins (vv.oesophageales)
left gastric vein (v.gastrica sin.)
superior epigastric veins (vv.epigastricae sup)
paraumbilical veins (vv.paraumbilicales)
superior mesenteric vein (v.mesenterica sup.)

190 The veins which participate in a porto-caval anastomosis in the wall of rectum are:
middle rectal veins (vv.rectales mediae)
superior rectal vein (v.rectalis sup.)
inferior rectal veins (vv.rectales inf.)
rectal venous plexus (plexus venosus rectalis)
lumbar veins (vv.lumbales)

191 The hepatic portal vein system (v.portae hepatis) includes among others:
left gastric vein (v. gastrica sin.)
superior rectal vein (v.rectalis sup.)
superior mesenteric vein (v.mesenterica sup.)
renal veins (vv.renales)
inferior rectal vein (v.rectalis inf.)

192 The trunk of the hepatic portal vein (v.portae hepatis):
takes its origin inside the root of mesentery (radix mesenterii)
takes its origin retroperitoneally behind the head of pancreas (caput pancreatis)
takes its origin in site of fusion of the superior mesenteric and splenic/lienal veins (v.mesenterica sup., v. splenica/lienalis)
passes to the liver inside the hepatoduodenal ligament (lig. hepatoduodenale)
passes to the inferior vena cava (v.cava inf.) inside the hepatorenal ligament (lig. hepatorenale)

193 The trunk of the hepatic portal vein (v.portae hepatis):

terminates opening into the inferior vena cava (v.cava inf.)
terminates ramifying inside the liver (hepar) giving rise to eight branches of the 1-st order
terminates ramifying outside the liver (hepar) giving rise to two branches of the 1-st order
follows to the liver inside the hepatoduodenal ligament (lig. hepatoduodenale)
follows to the inferior vena cava (v.cava inf.) inside the hepatorenal ligament (lig. hepatorenale)

194 The arteries that anastomose in the intercostal spaces (spatia intercostales) are:
posterior intercostal arteries (aa.intercostales post.)
anterior intercostal branches (rr.intercostales ant.)
the branches of the thoracic aorta and of the sublavian arteries systems
the branches namely of the thoracic aorta system
the branches of the thoracic aorta and of the common carotid arteries systems

195 In the thickness of the diaphragm the anastomosing arteries are:
superior phrenic arteries (aa.phrenicae sup.)
inferior phrenic arteries (aa.phrenicae inf.)
lower posterior intercostal arteries (aa.intercostales post.)
pericardiacophrenic arteries (aa. pericardiacophrenicae)
superior and inferior epigastric arteries (aa.epigastricae sup., inf.)

196 Posterior intercostal arteries anastomose with vertebral arteries systems:
on the surfaces of the thoracic and lumbar spinal cord segments
in the posterior mediastinum (mediastinum post.)
in middle mediastinum (mediastinum medium)
in the diaphragm (diaphragm)
in the back (dorsum)

197 The anastomosing arteries in the oesophageal wall are:
oesophageal branches of the thoracic aorta (rr.oesophageales aortae)
oesophageal branches of the inferior thyroid arteries (aa.thyroideae inf.)
oesophageal branches of the left gastric arteries (a.gastrica sin.)
pericardiacophrenic arteries (aa. pericardiacophrenicae)
mediastinal branches of the thoracic aorta (aorta thoracica)

198 The arteries that form an anastomosis in the abdominal part of the oesophagus are:
oesophageal branches of the thoracic part of aorta (rr.oesophageales) and of the left gastric artery (a.gastrica sin.)

oesophageal branches of the thoracic part of the aorta (rr.oesophageales) and pericardial branches (rr.pericardiaci)
oesophageal branches of the thoracic part of the aorta (rr.oesophageales) and mediastenal branches (rr.mediastinales)
mediastenal branches (rr.mediastinales) and left gastric artery (a.gastrica sin.)
mediastinal branches (rr.mediastinales) and pericardial branches (rr.pericardiaci)

199 In the thickness of the anterior abdominal wall anastomose the branches deriving from the systems of the:
subclavian arteries (aa.subclaviae) and external iliac arteries (aa.iliacae ext.)
coeliac trunk (truncus coeliacus) and the superior mesenteric artery (a.mesenterica sup.)
superior and inferior mesenteric arteries (a.mesenterica sup., inf.)
the inferior mesenteric artery (a.mesenterica sup.) and the internal iliac arteries (aa.iliacae int.)
abdominal part of the aorta (pars abdominalis aortae) and internal iliac arteries (a.iliacae int.)

200 In the thickness of the anterior abdominal wall an anastomosis is formed with participation of:
superior epigastric arteries (aa.epigastricae sup.)
inferior epigastric arteries (aa.epigastricae inf.)
superior phrenic arteries (aa.phrenicae sup.)
inferior phrenic arteries (aa.phrenicae inf.)
umbilical arteries (aa.umbilicales)

201 In the transverse mesocolon (mesocolon transversum) an anastomose forms by the branches of the :
superior mesenteric artery (a.mesenterica sup.)
inferior mesenteric artery (a.mesenterica inf.)
splenic/lienal artery (a. splenica/lienalis)
inferior epigastric artery (a.epigastrica inf.)
sigmoid arteries (aa.sigmoideae)

202 The arteries that form the intersystemic anastomosis in the transverse mesocolon are:
middle colic artery (a.colica media) and left colic artery (a.colica sin.)
superior and inferior epigastric arteries (a.epigastrica sup., inf.)
superior and inferior pancreatoduodenal arteries (a.pancreatoduodenalis sup., inf.)
left colic artery (a.colica sin.) and sigmoid arteries (aa.sigmoideae)
ileocolic artery (a.ileocolica) and sigmoid arteries (aa.sigmoideae)

203 The main source in blood supply of the pelvic organs and pelvic girdle are:
internal iliac arteries (aa.iliaci int.)
inferior mesenteric artery (a.mesenterica inf.)

umbilical arteries (aa.umbilicales)
internal pudendal arteries (aa.pudendae int.)
external iliac arteries (aa.iliaci ext.)

204 The group of iliac arteries (aa.iliacae) is represented by:
internal iliac arteries (aa.iliacae int.)
common iliac arteries (aa.iliacae communes)
external iliac arteries (aa.iliacae ext.)
anterior iliac arteries (aa.iliacae ant.)
dorsal iliac arteries (aa.iliacae dors.)

205 The parietal branches of the internal iliac artery (aa.iliaca int.) are among others:
iliolumbar artery (a.iliolumbalis)
lateral sacral arteries (aa.sacrales lat.)
obturator artery (a.obturatoria)
internal pudendal artery (a.pudenda int.)
uterine artery (a.uterina)

206 The artery/ies that leave/s pelvic cavity via the infrapiriform foramen (foramen infrapiriforme) are:
superior gluteal artery (a.glutea sup.)
inferior gluteal artery (a.glutea inf.)
obturator artery (a.obturatoria)
internal pudendal artery (a.pudenda int.)
umbilical artery (a.umbilicalis)

207 The main sources in blood supply of the perineum are:
internal pudendal arteries (aa.pudendae int.)
inferior gluteal arteries (aa.gluteae inf.)
obturator arteries (aa.obturatoriae)
inferior rectal arteries (aa.rectales inf.)
inferior vesical arteries (aa.vesicales sup.)

208 The common iliac arteries (aa.iliacae communes):
originate at the level of L4
are the vessels of a magistral type
provide the arterial supply of the pelvic organs, pelvic girdle and lower limbsml

participate in blood supply of the abdominal walls
are accompanied with tributaries of the hepatic portal vein (v.portae hepatis)

209 The uterine artery (a.uterina):
is the only visceral branch of internal iliac artery (a.iliaca int.)
is located in the base of the broad ligament of uterus (lig. latum uteri)
in its course crosses the ureter
possesses anastomoses with the ovarian artery (a.ovarica)
supplies vagina besides the uterus

210 The uterus (uterus):
is vascularized by the branches of two uterine arteries (aa.uterinae)
may be vascularized with partial participation of the ovarian arteries branches (aa.ovaricae)
its venous plexusis (plexus venosus uterinus) drained by the tributaries of the internal iliac veins (vv.iliacae int.)
its venous plexus (plexus venosus uterinus) is drained by the tributaries of the hepatic portal vein (v.portae hepatis)
contains the uterine venous plexus (plexus venosus uterinus)

211 The branches of the internal iliac artery (a.iliaca int.) participating in blood supply of the roots of spinal cord and its meninges are:
lateral sacral arteries
superior gluteal arteries (aa.gluteae sup.)
inferior gluteal arteries (aa.gluteae inf.)
iliolumbar arteries (aa. iliolumbales)
obturator arteries (aa.obturatoriae)

212 The arteries that leave the lesser pelvis to vascularize the extrapelvic structures are:
superior gluteal arteries (aa.gluteae sup.)
inferior gluteal arteries (aa.gluteae inf.)
obturator arteries (aa.obturatoriae)
internal pudendal arteries (aa.pudendae int.)
middle rectal arteries (aa.rectales mediae)

213 The blood vessels that form anastomoses in the rectal wall are:
the branches of the superior mesenteric artery (a.mesenterica sup.)
the branches of the inferior mesenteric artery (a.mesenterica inf.)
the branches of the internal iliac arteries (aa.iliacae int.)
the tributaries of the hepatic portal vein system (v.portae hepatis)

the tributaries of the inferior vena cava system (v.cava inf.)

214 The umbilical artery (a.umbilicalis):
functions in a full manner only in prenatal life carrying blood from placenta to foetus
functions in a full manner only in prenatal life carrying blood from foetus to placenta
later transforms at its greater length into fibrous cord
in its initial part gives rise to vesical arteries (aa.vesicales)
supplies also the anterior abdominal wall

215 The sites of location of the porta-caval anastomoses are mostly:
gastric cardia (cardia) and abdominal part of oesophagus
anterior abdominal wall
wall of rectum
abdominal retroperitoneal space
vertebral canal

216 The ovarian artery (a.ovarica):
is a branch of the internal iliac artery (a.iliaca int.)
is a branch of the abdominal aorta
is contained in suspensory ligament of ovary (lig. suspensorium ovarii)
supplies the ovary (ovarium) and uterine tube (tuba uterina)
passes in inguinal canal (canalis inguinalis)

217 The internal pudendal artery (a.pudenda int.):
is a branch of the internal iliac artery (a.iliaca int.)
is a branch of the inferior rectal artery (a.rectalis inf.)
is contained in the infrapiriform foramen (foramen infrapiriforme)
is contained in the lesser sciatic foramen (foramen ischiadicum minus)
is contained in the ischio-anal fossa (fossa ischioanalis)

218 The pelvic venous bed:
is drained mostly by the tributaries of the internal iliac vein (v.iliaca int.)
is drained mostly by the tributaries of the external iliac vein (v.iliaca ext.)
is partly drained by the tributaries of the hepatic portal vein (v.portae hepatis.)
contains numerous extra- and intraorganic venous plexuses
participates in porta-caval anastomosis

219 The landmark for a site of transition of the subclavian artery (a.subclavia) into the axillary one (a. axillaris) is:
the external edge of the 1-st rib
the internal edge of the 1-st rib
the upper edge of the pectoralis major
the inner edge the pectoralis minor
the inferior edge of the pectoralis major

220 The landmark for a site of transition of the axillary artery (a. axillaris) into the brachial one is:
the external edge of the 1-st rib (costa prima)
the internal edge of the 1-st rib
the upper edge of the pectoralis major (m. pectoralis major)
the outer edge the pectoralis minor (m. pectoralis minor)
the inferior edge of the pectoralis major (m. pectoralis major)

221 Within the projection of the clavipectoral triangle (trigonum clavipectorale) the axillary artery (a. axillaris) gives rise to:
superior thoracic artery (a. thoracica sup.)
thoraco-acromial artery (a.thoracoacromialis)
lateral thoracic artery (a. thoracica lat.)
thoracodorsal artery (a.thoracodorsalis)
circumflex scapular artery (a.circumflexa scapulae)

222 Within the the projection of the pectoral triangle (trigonum pectorale) the axillary artery (a. axillaris) gives rise to:
superior thoracic artery (a. thoracica sup.)
thoraco-acromial artery (a.thoracoacromialis)
lateral thoracic artery (a. thoracica lat.)
thoracodorsal artery (a.thoracodorsalis)
circumflex scapular artery (a.circumflexa scapulae)

223 Within the the projection of the subpectoral triangle (trigonum subpectorale) the axillary artery (a. axillaris) gives rise to:
thoraco-acromial artery (a.thoracoacromialis)
lateral thoracic artery (a. thoracica lat.)
subscapular artery
anterior circumflex humeral artery (a.circumflexa humeri ant.)
posterior circumflex humeral artery (a.circumflexa humeri post.)

224 From the axillary artery (a.axillaris) arise:
superior thoracic artery (a.thoracicasuperior)
posterior circumflex humeral artery (a.circumflexa humeri posterior)
subscapular artery (a.subscapularis)
lateral thoracic artery (a.thoracica lateralis)
thyrocervical trunk (truncus thyrocervicalis)

225 The triangular space (foramen trilaterum) contains:
circumflex scapular artery (a.circumflexa scapulae)
posterior circumflex humeral artery (a.circumflexa humeri post.)
anterior circumflex humeral artery (a.circumflexa humeri ant.)
subscapular artery (a.subscapularis)
suprascapular artery (a.suprascapularis)

226 The quadrangular space (foramen quadrilaterum) contains:
posterior circumflex humeral artery (a.circumflexa humeri post.)
lateral thoracic artery (a.thoracica lateralis)
subscapular artery (a.subscapularis)
circumflex scapular artery (a.circumflexa scapulae)
anterior circumflex humeral artery (a.circumflexa humeri ant.)

227 The subscapular artery (a.subscapularis) divides into:
thoracodorsal artery (a.thoracodorsalis)
circumflex scapular artery (a.circumflexa scapulae)
superior thoracic artery (a.thoracica sup.)
lateral thoracic artery (a.thoracica lat.)
posterior circumflex humeral artery (a.circumflexa humeri post.)

228 The lateral thoracic artery (a.thoracica lat.):
is a branch of axillary artery in projection of the pectotal triangle (trigonum pectorale)
is a branch of axillary artery in projection of the clavipectotal triangle (trigonum clavipectorale)
descends traversing the serratus anterior (m. serratus ant.) and vascularizing it
participates in blood supply of the mammary gland (glandula mammaria)
descends traversing the pectoralis major (m. pectoralis major) and vascularizing it

229 The system of the axillary artery (a. axillaris) provides or participates in blood supply of:

muscles of the schoulder/pectoral girdle (cingulum pectoral)
joints of the schoulder/pectoral girdle (cingulum pectoral)
mammary gland (glandula mammaria)
free part of upper limb
vertebral column, proper muscles of the back and spinal cord (medulla spinalis)

230 The brachial artery (a.brachialis):
is a continuation of axillary artery (a.axillaris)
is a continuation of subclavian artery (a.subclavia)
the site of its origin corresponds to the lower edge of the pectoralis major (m.pectoralis major)
is a vessel of magistral type
possesses both collateral and terminal branches

231 The brachial artery (a.brachialis) gives rise to:
muscular branches (rr.musculares)
superior ulnar collateral artery (a.collateralis ulnaris sup.)
inferior ulnar collateral artery (a.collateralis ulnaris inf.)
profunda brachii artery/deep artery of arm (a.profunda brachii)
posterior circumflex humeral artery (a.circumflexa humeri post.)

232 The branches of the profunda brachii artery/deep artery of arm (a.profunda brachii) are among others:
posterior circumflex humeral artery (a.circumflexa humeri post.)
anterior circumflex humeral artery (a.circumflexa humeri post.)
middle collateral artery (a.collateralis media)
radial collateral artery (a.collateralis radialis)
inferior ulnar collateral artery (a.collateralis ulnaris inf.)

233 The arteries originating in the arm that participate in cubital arterial anastomosis (rete articulare cubiti) are:
superior ulnar collateral artery (a.collateralis ulnaris sup.)
inferior ulnar collateral artery (a.collateralis ulnaris inf.)
radial collateral artery (a.collateralis radialis)
middle collateral artery (a.collateralis media)
recurrent interosseous artery (a.interossea recurrens)

234 The arteries originating in the forearm that participate in cubital arterial anastomosis (rete articulare cubiti) are:
radial recurrent artery (a.recurrens radialis)

ulnar recurrent artery (a.recurrens ulnaris)
recurrent interosseous artery (a.interossea recurrens)
middle collateral artery (a.collateralis media)
inferior ulnar collateral artery (a.collateralis ulnaris inf.)

235 The particular practical significance of the cubital arterial anastomosis (rete articulare cubiti) is that it :
may assure the collateral blood circulation in troubles of brachial artery
provides the blood supply of the elbow joint (art. cubiti)
provides the blood supply of the neighbouring muscles
provides the blood supply of the neighbouring nerves
may be easily injured in trauma

236 In the blood supply of the posterior group of the arm muscles are involved:
posterior circumflex humeral artery (a.circumflexa humeri post.)
profunda brachii artery/deep artery of arm (a.profunda brachii)
superior ulnar collateral artery (a.collateralis ulnaris sup.)
inferior ulnar collateral artery (a.collateralis ulnaris inf.)
suprascapular artery (a.suprascapularis)

237 The brachial artery (a. brachialis) passes in:
medial bicipital groove (sulcus bicipitalis medialis)
cubital fossa (fossa cubitalis)
lateral bicipital groove (sulcus bicipitalis lateralis)
humeromuscular canal (canalis humeromuscularis)
ulnar groove (sulcus radialis)

238 The branches that arise from the ulnar artery (a.ulnaris) are among others:
ulnar recurrent artery (a.recurrens ulnaris)
common interosseous artery (a.interossea communis)
palmar carpal branch (r.carpalis palmaris)
dorsal carpal branch (r.carpalis dorsalis)
superficial palmar branch (r.palmaris superficialis)

239 The branches that arise directly from the ulnar artery (a.ulnaris) are among others:
deep palmar branch (r.palmaris profundus)
ulnar recurrent artery (a.recurrens ulnaris)

superficial palmar branch (r.palmaris superficialis)
inferior ulnar collateral artery (a.collateralis ulnaris inf.)
recurrent interosseous artery (a.interossea recurrens)

240 The ulnar artery (a.ulnaris) passes through:
medial bicipital groove (sulcus bicipitalis medialis)
cubital fossa (fossa cubitalis)
ulnar groove (sul.ulnaris)
canalis carpi ulnaris
carpal tunnel (canalis carpi)

241 The terminal branches of the common interosseous artery (a.interossea communis) are:
anterior interosseous artery (a.interossea anterior)
posterior interosseous artery (a.interossea posterior)
recurrent interosseous artery (a.interossea recurrens)
palmar carpal branch (r.carpalis palmaris)
dorsal carpal branch (r.carpalis dorsalis)

242 The common interosseous artery (a.interossea communis) in the forearm:
is a branch of ulnar artery (a.ulnaris)
is a branch of radial artery (a.radialis)
participates via its branches in formation of the cubital arterial anastomosis (rete articulare cubiti)
participates via its branches in formation of the dorsal carpal arch (rete carpale dorsale)
is a vessel of magistral type

243 The branches of the radial artery (a.radialis) are among others:
palmar carpal branch (r.carpalis palmaris)
superficial palmar branch (r.palmaris superficialis)
radial recurrent artery (a.recurrens radialis}
common interosseous artery (a.interossea communis)
dorsal carpal branch (r.carpalis dorsalis)

244 The radial artery (a.radialis) passes in the following topographical formations:
cubital fossa (fossa cubitalis)
radial groove (sulcus radialis)
anatomical snuff-box

ulnar groove (sulcus ulnaris)
canalis carpi radialis

245 The vessels participating in formation of the cubital arterial anastomosis (rete articulare cubiti) are the direct branches of:
axillary artery (a.axillaris)
brachial artery (a.brachialis)
ulnar artery (a.ulnaris)
radial artery (a.radialis)
profunda brachii artery (a.profunda brachii)

246 Dorsal carpal arch (rete carpale dorsale) is formed by:
posterior interosseous artery (a. interossea posterior)
anterior interosseous artery (a. interossea anterior)
dorsal carpal branch of radial artery (r. carpalis dorsalis a. radialis)
dorsal carpal branch of ulnar artery (r. carpalis dorsalis a. ulnaris)
common interosseous artery (a. interossea communis)

247 From the arterial dorsal carpal arch (rete carpale dorsale) arise/s:
dorsal metacarpal arteries (aa.metacarpales dorsales)
palmar carpal branch (r.carpalis palmaris)
artery of thumb (a.princeps pollicis)
dorsal carpal branch (r.carpalis dorsalis)
palmar metacarpal arteries (aa.metacarpales palmares)

248 The arterial dorsal carpal arch (rete carpale dorsale) supplies via its branches:
radiocarpal joint (art. radiocarpalis)
dorsum of hand (dorsum manus)
dorsal parts of fingers (digiti manus)
thenar muscles (mm. thenaris)
hypothenar muscles (mm.hypothenaris)

249 The dorsal metacarpal arteries (aa. metacarpales dorsales) are divided into:
dorsal digital arteries (aa. digitales dorsales)
perforating branches (rr. perforantes)
proper digital palmar arteries (aa. digitales palmares proprii)
deep palmar branches (r. palmaris profundus)

superficial palmar branches (r. palmaris superficialis)

250 The superficial palmar arch (arcus palmaris superficialis) is formed by:
superficial palmar branch (r. palmaris superficialis) of radial artery
ulnar artery (a. ulnaris)
superficial palmar branch (r. palmaris superficialis) of ulnar artery
anterior interosseous artery (a.interossea ant.)
radial artery (a. radialis)

251 The superficial palmar arch (arcus palmaris superficialis) gives rise to:
common palmar digital arteries (aa. digitales palmares communes)
dorsal metacarpal arteries (aa. metacarpals dorsales)
palmar metacarpal arteries (aa. metacarpals palmares)
proper palmar digital arteries (aa. digitales palmares proprii)
dorsal digital arteries (aa. digitales dorsales)

252 The deep palmar arch (arcus palmaris profundus) is formed by:
radial artery (a. radialis)
deep palmar branch (r. palmaris profundus) of ulnar artery
ulnar artery (a. ulnaris)
deep palmar branch (r. palmaris profundus) of radial artery
posterior interosseous artery (a. interossea post.)

253 The deep palmar arch (arcus palmaris profundus) gives rise to:
palmar metacarpal arteries (aa. metacarpals palmares)
princeps pollicis artery (a. princips pollicis)
common palmar digital arteries (aa. digitales palmares communes)
dorsal metacarpal arteries (aa. metacarpales dorsales)
dorsal carpal branch (r.carpalis dorsalis)

254 The terminal branches of the common palmar digital arteries (aa. digitales palmares communes) are:
proper palmar digital arteries (aa. digitales palmares propriae)
perforating branches (rr. perforantes)
palmar carpal branch (r. carpalis palmaris)
dorsal carpal branch (r. carpalis dorsalis)
interosseous arteries (aa. interosseae)

255 In principle every of the fingers of hand (digiti manus) is directly supplied with blood by arteries that are:
proper palmar digital arteries (aa. digitales palmares proprii)
dorsal digital arteries (aa. digitales dorsales)
interosseous arteries (aa. interosseae)
in total number of 4
in total number of 2

256 The arterial anastomosis on the dorsal side of the wrist is:
called the dorsal carpal arch (rete carpale dorsale)
formed mostly by the dorsal carpal branches of radial and ulnar arteries (rr. carpales dorsales)
site of origin of dorsal metacarpal arteries (aa.metacarpales dorsales)
called the deep palmar arch (arcus palmaris profundus)
site of origin of interosseous arteries (aa. interosseae)

257 The veins of the upper limb (venae membri superioris) are officially classified as:
superficial veins (vv. superficiales)
deep veins (vv. profundae)
anterior veins (vv. anteriores)
posterior veins (vv. posteriores)
lateral veins (vv. laterales)

258 The deep veins of limbs (venae membri sup., inf.) in contrast to the superficial ones:
accompany the homonymous arteries
are double at the important part of their course
are located under fascia
cannot be seen under usual conditions
are not accompanied by the lymph vessels

259 Superficial veins of the upper limb (vv. superficiales membri superioris):
cephalic vein/lateral subcutaneous vein of arm (v. cephalica)
baslic vein/medial subcutaneous vein of arm (v. basilica)
median cubital vein (v. mediana cubiti)
median antebrachial vein (v. mediana antebrachii)
brachial vein (v.brachialis)

260 Cephalic vein/lateral subcutaneous vein of arm (v. cephalica) passes in:
lateral bicipital groove (sulcus bicipitalis lat.)
deltopectoral groove (sulcus deltoideopectoralis)
radial groove (sulcus radialis)
medial bicipital groove (sulcus bicipitalis med.)
radial groove (sulcus radialis)

261 Cephalic vein/lateral subcutaneous vein of arm (v. cephalica):
is an extension of the cephalic vein of forearm (v. cephalica antebrachii)
at the level of elbow (cubitus) anastomoses with the basilic vein (v.basilica)
joins the axillary vein (v.axillaris)
joins the brachial vein (v.brachialis)
joins the subclavian vein (v.subclavia)

262 Basilic vein/ medial subcutaneous vein of arm (v.basilica):
is an extension of the basilic vein of forearm (v. basilica antebrachii)
at the level of elbow (cubitus) anastomoses with the cephalic vein (v.cephalica)
joins the brachial vein (v.brachialis)
joins the subclavian vein (v.subclavia)
joins the axillary vein (v.axillaris)

263 The cephalic and basilic veins of upper limb anastomose in the cubital region via:
median cubital vein (v. mediana cubiti)
ulnar vein (v. ulnaris)
radial vein (v. radialis)
brachial vein (v. brachialis)
median antebrachial vein (v. mediana antebrachii)

264 The main arteries related to the upper limb, every accompanied by two homonymous veins, are:
radial artery (a. radialis)
ulnar artery (a. ulnaris)
brachial artery (a. brachialis)
subclavian artery (a. subclavia)
axillary artery (a. axillaris)

265 The lymphatic vessels (vasa lymphatica) of upper limb are officially classified as::

superficial lymph vessels (vasa lymphatica superficialia)
deep lymph vessels (vasa lymphatica profunda)
superior lymph vessels (vasa lymphatica superiores)
inferior lymph vessels (vasa lymphaticainferiores)
inner lymphatic vessels (vasa lymphatica internae)

266 Deep lymphatic vessels (vasa lymphatica profunda) of the upper limb:
accompany the deeply located blood vessels
are located under fasciae
are interrupted in every group of the deep lymph nodes located in their course
drain the skin and subcutaneous tissues
come to the axillary lymph nodes without any interruption in their course

267 The main groups of the upper limb lymph nodes (nodi lymphoidei) are situated:
in cubital fossa (fossa cubitalis)
in axillary cavity (cavum axillare)
in ulnar groove (sulcus ulnaris)
in carpal tunnel (canalis carpi)
in humeromuscular canal (canalis humeromuscularis)

268 The first lymph nodes that receive lymph through the lateral group of the superficial lymphatic vessels of upper limb (vasa lymphatica lateralia) are mostly:
axillary lymph nodes (nodi lymphoidei axillares)
ulnar lymph nodes (nodi lymphoidei cubitales)
brachiocephalic lymph nodes (nodi lymphoidei brachiocephalici)
parasternal lymph nodes (nodi lymphoidei parasternales)
cervical lymph nodes (nodi lymphoidei cervicales)

269 The first lymph nodes that receive lymph through the medial group of the superficial lymphatic vessels of upper limb (vasa lymphatica superficialia) are mostly:
ulnar lymph nodes (nodi lymphoidei cubitales)
axillary lymph nodes (nodi lymphoidei axillares)
brachiocephalic lymph nodes (nodi lymphoidei brachiocephalici)
parasternal lymph nodes (nodi lymphoidei parasternales)
cervical lymph nodes (nodi lymphoidei cervicales)

270 The first lymph nodes that receive lymph through the deep lymphatic vessels of upper limb (vasa lymphatica profunda) are:
ulnar lymph nodes (nodi lymphoidei cubitales)
axillary lymph nodes (nodi lymphoidei axillares)
brachiocephalic lymph nodes (nodi lymphoidei brachiocephalici)
parasternal lymph nodes (nodi lymphoidei parasternales)
cervical lymph nodes (nodi lymphoidei cervicales)

271 The external iliac artery (a. iliaca externa):
is the main source in blood supply of lower limb
is a collateral branch of common iliac artery (a. iliaca communis)
originates at the level of the sacroiliac joint
provides the blood supply of the pelvic organs and of lower limb
provides the blood supply of lower limb, of pelvic and abdominal walls

272 The collateral branches of the external iliac artery (a. iliaca externa) are:
inferior epigastric artery (a. epigastrica inferior)
deep circumflex iliac artery (a. circumflexa ilium profunda)
superficial epigastric artery (a. epigastrica superficialis)
obturator artery (a.obturatoria)
inferior gluteal artery (a.glutea inf.)

273 The internal iliac artery (a. iliaca interna):
is the only source in arterial blood supply of the pelvic organs and walls
is a terminal branch of common iliac artery (a. iliaca communis)
originates at the level of the sacroiliac joint
leaves the pelvis via the vascular space (lacuna vasorum)
is the main source in arterial blood supply of lower limb

274 The system of the internal iliac artery (a. iliaca interna) cooperates in arterial blood supply of the pelvic organs with:
the system of coeliac trunk (truncus coeliacus)
the system of superior mesenteric artery (a.mesenterica sup.)
the system of inferior mesenteric artery (a.mesenterica inf.)
direct branches of abdominal aorta (aorta abdominalis)
the system of external iliac artery (a. iliaca externa)

275 The branches of the internal iliac artery (a. iliaca interna) that leave the lesser pelvis to supply the pelvic muscles and perineum

are:
superior gluteal artery (a.glutea sup.)
inferior gluteal artery (a.glutea inf.)
obturator artery (a.obturatoria)
internal pudendal artery (a. pudenda interna)
deep circumflex iliac artery (a.circumflexa ilium profunda)

276 The superior gluteal artery (a.glutea sup.):
is a branch of the internal iliac artery (a. iliaca interna)
leaves the pelvic cavity through the suprapiriform foramen (foramen suprapiriforme)
leaves the pelvic cavity through the infrapiriform foramen (foramen infrapiriforme)
supplies the muscles of the gluteal region
supplies the muscles of the gluteal region, rectum and perineum

277 The inferior gluteal artery (a.glutea inf.):
is a branch of the external iliac artery (a. iliaca ext.)
leaves the pelvic cavity through the suprapiriform foramen (foramen suprapiriforme)
leaves the pelvic cavity through the infrapiriform foramen (foramen infrapiriforme)
supplies the muscles of the gluteal region
supplies the muscles of the gluteal region, rectum and perineum

278 The obturator artery (a.obturatoria):
is a branch of the internal iliac artery (a. iliaca interna)
leaves the pelvic cavity through the obturator canal (canalis obturatorius) to appear between the medial muscles of thigh
leaves the pelvic cavity through the obturator canal (canalis obturatorius) to appear between the muscles of gluteal region
may often form the clinically dangerous anastomosis with the inferior epigastric artery (a.epigastrica inf.)
supplies the muscles of the gluteal region, rectum and perineum

279 The “crown of death” - corona mortis – is a frequent and clinically important arterial anastomosis that:
is a connection of the obturator and inferior epigastric arteries (a. obturatoria, a.epigastrica inf.)
is a connection of the obturator and internal pudendal arteries (a. obturatoria, a.pudenda int.)
is located in proximity to the femoral and inguinal canals (can.femoralis, can.inguinalis)
is located in proximity to the lesser sciatic foramen (foramen ischiadicum minus)
may be a cause of the mortally dangerous bleeding in its injury

280 The internal pudendal artery (a.pudenda int.):

takes its origin in the greater pelvis (pelvis major)
takes its origin in the lesser pelvis (pelvis minor)
leaves the pelvic cavity via the infrapiriform foramen (foramen infrapiriforme)
reaches the perineum through the lesser sciatic foramen (foramen ischiadicum minus)
supplies perineum, rectum, genitalia and partly the pelvic muscles

281 The femoral artery (a.femoralis):
is a vessel of terminal type
originates at the level of inquinal ligament (lig.inquinale) being a continuation of the external iliac artery (a.iliaca ext.)
originates at the level of inquinal ligament (lig.inquinale) being one of the terminal branches of the external iliac artery (a.iliaca ext.)
is the main source in blood supply of the whole free part of lower limb
is the lateral component of the vascular space (lacuna vasorum)

282 The collateral branches of femoral artery (a.femoralis) provide or participate in blood supply of:
abdominal wall
external genitalia
muscles and skin of thigh
gluteal muscles
knee joint

283 In the adductor canal (canalis adductorius) the femoral artery (a.femoralis):
is accompanied by the saphenous nerve (n.saphenus)
is accompanied by the femoral vein (v.femoralis)
is accompanied by the femoral nerve (n.femoralis)
gives rise to the deep artery of thigh (a.profunda femoris)
gives rise to the descending genicular artery (a.descendens genus)

284 In the area of femoral triangle (trigonum femorale) the femoral artery (a.femoralis) gives off among others:
superficial circumflex iliac artery (a.circumflexa ilium superficialis)
superficial epigastric artery (a.epigastrica superficialis)
deep circumflex iliac artery (a.circumflexa ilium profunda)
inferior epigastric artery (a.epigastrica inferior)
descending genicular artery (a.descendens genus)

285 In the region of the femoral triangle (trigonum femorale) the femoral artery (a. femoralis) gives off among others:

deep artery of thigh (a.profunda femoris)
superficial epigastric artery (a.epigastrica superficialis)
external pudendal arteries (aa.pudendae externae)
inferior epigastric artery (a.epigastrica inf.)
perforating arteries (aa.perforantes)

286 Deep artery of thigh (a.profunda femoris):
arises from the femoral artery in the area of the femoral triangle (trigonum femorale)
ends in the thigh with perforating arteries (aa.perforantes)
lies behind the femoral artery (a.femoralis)
arises from the femoral artery at the level of the inguinal ligament (lig.inguinale)
ends in popliteal fossa (fossa poplitea)

287 Deep artery of thigh (a.profunda femoris) gives off the following branches:
medial circumflex femoral artery (a.circumflexa femoris med.)
lateral circumflex femoral artery (a.circumflexa femoris lat.)
perforating arteries (aa.perforantes)
descending genicular artery (a.descendens genus)
deep circumflex iliac artery (a.circumflexa ilium profunda)

288 Deep artery of thigh (a.profunda femoris):
is a collateral branch of femoral artery (a.femoralis)
is a terminal branch of femoral artery (a.femoralis)
is the main source in blood supply of thigh
possesses numerous important anastomoses that are capable to restore the troubled blood supply of lower limb
is deprived of any clinically important anastomoses

289 The main source in blood supply of the posterior muscle group of thigh are:
perforating arteries (aa.perforantes) of the deep artery of thigh (a.profunda femoris)
branches of the obturator artery (a.obturatoria)
branches of the inferior gluteal artery (a.glutea inf.)
branches of the popliteal artery (a.poplitea)
branches of the internal pudendal artery (a.pudenda int.)

290 The main source in blood supply of the anterior muscle group of thigh are:
branches of the deep artery of thigh (a.profunda femoris)

branches of the obturator artery (a.obturatoria)
branches of the external iliac artery (a.iliaca ext.)
branches of the popliteal artery (a.poplitea)
descending genicular artery (a.descendens genus)

291 Popliteal artery (a.poplitea):
is a continuation of the femoral artery (a.femoralis) at the level of adductor hiatus (hiatus adductorius)
is a vessel of terminal type
is located anteriorly to the popliteal vein (v. poplitea)
is a collateral branch of the femoral artery (a.femoralis)
is located posteriorly to the popliteal vein (v. poplitea)

292 The popliteal artery (a. poplitea):
goes on the bottom of the popliteal fossa (fossa poplitea)
participates in formation of the genicular anastomosis (rete articulare genus)
is the only source in the arterial blood supply of the leg and foot
terminates at the level of the ancle joint (art. talocruralis)
gives off three terminal branches

293 The genicular anastomosis (rete articulare genus):
is an anastomotic arterial network around the knee joint and is formed by the branches related to the systems of the femoral and popliteal arteries
provides the blood supply of the knee joint and surrounding tissues
in principle is able to provide the collateral circulation in troubles of the magistral vessels
is superficially located under the skin
can be visually explored

294 In formation of the genicular anastomosis (rete articulare genus) participate:
five genicular arteries from the femoral artery system (aa. genus)
five genicular arteries from the popliteal artery system
the peripheral branches of the deep artery of thigh system (a.profunda femoris)
the recurrent vessels from the arteries of the leg
the descending genicular artery (a.descendens genus) from the femoral artery

295 Posterior tibial artery (a. tibialis post.) is:
a terminal branch of the popliteal artery (a.poplitea)

a collateral branch of the femoral artery (a.femoralis)
a branch of the anterior tibial artery (a. tibialis ant.)
contained in the cruropopliteal canal (canalis cruropopliteus)
passes between the muscles of the posterior muscular group of the leg

296 The anterior tibial artery (a. tibialis ant.):
is a terminal branch of the popliteal artery (a.poplitea)
pierces the interosseous membrane of the leg (membrana interossea cruris)
passes between the muscles of the anterior muscular group of the leg
is contained in the cruropopliteal canal (canalis cruropopliteus)
gives rise to the plantar arteries (aa.plantares)

297 Fibular/peroneal artery (a. fibularis/peronea):
is a branch of the posterior tibial artery (a. tibialis post.)
is a continuation of the popliteal artery (a. poplitea)
passes along the fibula between the muscles of the posterior muscular group of the leg
passes along the fibula between the muscles of the anterior muscular group of the leg
participates in malleolar and calcaneal arterial anastomoses (rete malleolare, rete calcaneum)

298 Posterior tibial artery (a.tibialis post.):
is a terminal branch of the popliteal artery (a.poplitea)
descends between the muscles of the posterior muscular group of the leg
passes behind the lateral malleolus (malleolus medialis)
continues into the dorsal artery of foot (a.dorsalis pedis)
gives origin to the plantar arteries (aa.plantares med., lat.)

299 Anterior tibial artery (a.tibialis ant.):
is a collateral branch of the popliteal artery (a.poplitea)
continues into the dorsal artery of foot (a.dorsalis pedis)
supplies the anterior muscular group of the leg and dorsum of foot (dorsum pedis)
supplies the lateral muscular group of the leg and sole of foot (planta)
its pulsation can be palpated

300 The anterior muscular group of the leg is mostly supplied with blood by the collateral branches of:
anterior tibial artery (a. tibialis ant.)
popliteal artery (a. poplitea)

peroneal artery (a. fibularis)
femoral artery (a.femoralis)
posterior tibial artery (a. tibialis post.)

301 The posterior muscular group of the leg is mostly supplied with blood by the collateral branches of:
posterior tibial artery (a. tibialis post.)
popliteal artery (a. poplitea)
anterior tibial artery (a. tibialis ant.)
peroneal artery (a. fibularis)
femoral artery (a. femoralis)

302 The lateral muscular group of the leg is mostly supplied with blood by the collateral branches of:
posterior tibial artery (a. tibialis post.)
popliteal artery (a. poplitea)
anterior tibial artery (a. tibialis ant.)
peroneal artery (a. fibularis)
femoral artery (a. femoralis)

303 A deep plantar arch (arcus plantaris profundus) is formed by:
lateral plantar artery (a. plantaris lat.)
deep branch (r. profundus) of the medial plantar artery (a. plantaris med.)
dorsalis pedis artery/ dorsal artery of foot (a. dorsalis pedis)
medial plantar artery (a. plantaris med.)
deep plantar branch (a. plantaris profunda) of the dorsal artery of the foot (a. dorsalis pedis)

304 The deep plantar arch (arcus plantaris profundus) gives off:
plantar metatarsal arteries (aa. metatarsals plantares)
perforating branches (rr. perforantes)
superficial branch (r. superficialis)
deep plantar artery (a. plantaris profunda)
arcuate artery (a. arcuata)

305 The main anastomosis of dorsal and plantar arteries of foot:
is represented by the deep plantar artery (a. plantaris profunda)
is located in the first intermetatarsal interval
join the dorsalis pedis artery/ dorsal artery of foot (a. dorsalis pedis) and lateral plantar artery (a. plantaris lateralis)

is represented by the arcuate artery (a.arcuata)
is represented by the first dorsal metatarsal artery (a. metatarsalis dorsalis prima)

306 The arcuate artery of foot (a. arcuata) is a direct branch of:
dorsalis pedis artery/ dorsal artery of foot (a. dorsalis pedis)
lateral plantar artery (a. plantaris lat.)
medial plantar artery (a. plantaris med.)
anterior tibial artery (a. tibialis ant.)
posterior tibial artery (a. tibialis post.)

307 The veins of the lower limbs:
are classified as superficial and deep veins (vv.superficiales, vv.profundae)
are classified as external and internal veins (vv.externae, vv.internae)
are the composants of the inferior vena cava system (v. cava inf.)
are richly provided with the valves (valvulae venosae)
forms numerous anastomoses

308 The superficial veins of the lower limbs (vv.superficiales):
are represented mainly by the great saphenous vein (v. sapbena magna) and the small saphenous vein (v. saphena parva)
are represented by the great and small saphenous veins (vv. sapbenae magna et parva), anterior and posterior tibial veins (vv.tibiales ant.,post.)
are located above the proper fascia (fascia propria)
accompany the arterial bed of the limb
are deprived of the valves (valvulae venosae)

309 The deep veins of the lower limbs (vv.profundae):
are represented mainly by the great saphenous vein (v. sapbena magna) and the small saphenous vein (v. saphena parva)
are represented by the anterior and posterior tibial, popliteal,femoral veins (vv.tibiales ant.,post., v.poplitea, v.femoralis) and their inflows
are located deeper to the proper fascia (fascia propria)
accompany the arterial bed of the limb
are deprived of the valves (valvulae venosae)

310 The inflows of the great saphenous vein (v. saphena magna) in its uppest part are:
external pudendal veins (vv. pudendae externae)
superficial epigastric vein (v. epigastrica superficialis)

superficial circumflex iliac vein (v. circumflexa ilium superficialis)
deep circumflex iliac vein (v. circumflexa ilium profunda)
inferior epigastric vein (v. epigastrica inf.)

311 The great saphenous vein (v. saphena magna):
belongs to the superficial veins of the lower limbs (vv.superficiales)
is a continuaton of the popliteal vein (v. poplitea)
follows mainly the medial border of the lower limb
opens into femoral vein (v.femoralis) at the level of the saphenous opening (hiatus saphenous)
opens into popliteal vein (v.poplitea) at the level of the adductor hiatus (hiatus adductorius)

312 The small saphenous vein (v. saphena parva):
belongs to the superficial veins of the lower limbs (vv.superficiales)
follows mainly the posterior surface of the leg
accompanies the corresponding vasculonervous bundle
falls into femoral vein (v.femoralis) at the level of the saphenous opening (hiatus saphenous)
falls into popliteal vein (v.poplitea) at the level of popliteal fossa (fossa poplitea)

313 The inflows of the femoral vein (v.femoralis) in the region of the femoral triangle (trigonum femorale) are:
great saphenous vein (v. saphena magna)
profunda femoris vein/deep vein of thigh (v. profunda femoris)
deep circumflex iliac vein (v. circumflexa ilium profunda)
inferior epigastric vein (v. epigastrica inf.)
internal pudendal vein (v. pudenda interna)

314 The systems of the great and the small saphenous veins (v. saphena magna, parva):
are composed of the superficial veins of lower limb
are spatially arranged like arterial bed of the limb
anastomose largely with each other and with the deep veins
possess no anastomoses with the deep veins
can often be exposed to varicose disease

315 The primary (central) organs of the immune system are:
bone marrow (medulla ossium)
spleen (splen, lien)
lymph nodes (nodi lymphoidei)

thymus (thymus)
tonsils (tonsillae)

316 The secondary (peripheral) organs of the immune system are:
bone marrow (medulla ossium)
spleen (splen, lien)
lymphoid nodules (noduli lymphoidei)
thymus (thymus)
lymph nodes (nodi lymphoidei, lymphatici)

317 Thoracic duct (ductus thoracicus):
originates at the level of the XII thoracic - II lumbar vertebrae (Th12- L2) dorsally to the aorta
originates at the level of IV - V lumbar vertebrae (L4 – L5) dorsally to the aorta
is mostly result of two lumber trunks fusion
carries lymph into the left venous angle (angulus venosus sin.)
carries lymph into the right venous angle (angulus venosus dext.)

318 The inflows of the thoracic duct (ductus thoracicus) are:
lumbar trunks (trunci lumbales)
left and right bronchomediastenal, subclavian and jugular trunks (trunci bronchomediastinales, subclavii, jugulares)
right bronchomediastenal, subclavian and jugular trunks (truncus bronchomediastinalis, subclavius, jugularis)
left bronchomediastenal, subclavian and jugular trunks (truncus bronchomediastinalis, subclavius, jugularis)
right lymphatic duct (ductus lymphaticus dext.)

319 Thoracic duct (ductus thoracicus):
carries lymph from the ¾ of the human body
originates frequently with the cisterna chyli
lies in the posterior mediastinum just medially to the azygos vein (v.azygos)
lies in the posterior mediastinum just medially to the hemiazygos vein (v.hemiazygos)
lies in the anterior mediastinum just medially to the internal thoracic vein (v.thoracica int.)

320 The parts of the thoracic duct (ductus thoracicus) are:
abdominal (pars abdominalis)
thoracic (pars thoracica)
cervical (pars cervicalis)
arch (arcus)

cephalic (pars cephalica)

321 Cysterna chyli (cysterna chyli):
is very frequent dilation of the thoracic duct (ductus thoracicus) in its very origin
is a dilation of the thoracic duct (ductus thoracicus) in its very termination
are successive dilations of the lymphatic vessels between their valvules (valvulae lymphaticae)
is a local dilation of the left venous angle (angulus venosus sin.)
is a local dilation of the right venous angle (angulus venosus dext.)

322 The inflows of the right lymphatic duct (ductus lymphaticus dext.) are:
right bronchomediastenal trunk (truncus bronchomediastinalis dext.)
right lumbar trunk (truncus lumbalis dext.)
right jugular trunk (truncus jugularis dext.)
left bronchomediastenal trunk (truncus bronchomediastinalis sin.)
right subclavian trunk (truncus subclavius dext.)

323 The practical importance of knowing the ways of lymph outflow from a particular organ into a particular group of lymph nodes is that:
the wall of the lymphatic capillaries is particularly permeable for the tissue breakdown products or tumor cells in relation to the blood capillaries
the tumor cells or tissue breakdown products in the transported lymph can affect the receiving lymph nodes provoking in them the secondary tumor (metastasis) or inflammation
their detection can be a diagnostic key and the basis for the decision on the treatment strategy of the patient
this knowledge represents much more theoretical than the practical interest
this knowledge is practically useless because of the impossibility to reveal the state of the lymph nodes

324 The axillary lymph nodes (nodi lymphoidei axillares):
are located in the axillary cavity (cavum axillare)
are composed of several groups
participate in lymphatic drainage of the free part of upper limb only
participate in lymphatic drainage of the free part of upper limb and of the shoulder girdle region only
participate in lymphatic drainage of the free part of upper limb, of the shoulder girdle region and of the mammary gland

325 The coeliac lymph nodes (nodi lymphoidei coeliaci):
are located retroperitoneally
are located in proximity to the coeliac trunk (truncus coeliacus)

participate in lymphatic drainage of the organs of the upper storey of the abdominal cavity
obtain the lymph from the nodes located along the branches of the coeliac trunk
are situated in the lesser omentum (omentum minor)

326 The lumbar lymph nodes (nodi lymphoidei lumbales):
are located retroperitoneally
are arranged in chains along the abdominal aorta and inferior vena cava (aorta abdominalis, v.cava inf.)
participate in lymphatic drainage of all abdominal organs and walls only
participate in lymphatic drainage of the organs of the lower storey of the abdominal cavity only
participate in lymphatic drainage of all the organs of the abdominal cavity, its walls, of the pelvic organs with the genital glands

327 The iliac lymph nodes (nodi lymphoidei iliaci):
are arranged in groups in nearest proximity to the iliac vessels (aa., vv.iliacae comm., ext., int.)
are included in the lymphatic drainage pathways from the lower limbs
are included in the lymphatic drainage pathways from all of the pelvic organs
are included in the lymphatic drainage pathways from all of the pelvic organs excepting the upper rectum and, in females, ovaries, uterine tubes and fundus of uterus
are in further connection with the lumbar lymph nodes (nodi lymphoidei lumbales)

328 The most numerous group of the lymph nodes (nodi lymphoidei) is located:
in the pelvis
in the axillary cavity (cavum axillare)
in the posterior mediastinum (mediastinum post.)
in the neck
in the mesentery (mesenterium)

329 The first lymph nodes at the way of the lymph outflow from the ovary are:
obturator nodes (nodi obturatorii)
lumbar nodes (nodi lumbales)
internal iliac nodes (nodi iliaci interni)
inferior mesenteric nodes (nodi mesenterici inferiors)
common iliac nodes (nodi iliaci communes)

330 The first lymph nodes at the way of the lymph outflow from the lateral quadrants of the mammary gland are mostly:
prevertebral nodes (nodi prevertebrales)
parasternal nodes (nodi parasternales)

intercostal nodes (nodi intercostales)
axillary nodes (nodi axillares)
supraclavicular nodes (nodi supraclaviculares)

331 The first lymph nodes at the way of the lymph outflow from the lungs (pulmones) are:
intrapulmonary and bronchopulmonary nodes (nodi intrapulmonales, bronchopulmonales)
parasternal nodes (nodi parasternales)
intercostal nodes (nodi intercostales)
axillary nodes (nodi axillares)
supraclavicular nodes (nodi supraclaviculares)

332 The first possible lymph nodes at the way of the lymph outflow from the lower rectum and anal canal are:
inguinal nodes (nodi lymphoidei inguinales)
sacral nodes (nodi sacrales)
obturator nodes (nodi obturatorii)
internal iliac nodes (nodi iliaci interni)
gluteal nodes (nodi gluteales)