Complete the following:

1. A layer of ___________________ cells lines each vessel in the vascular system. This layer is a passive barrier that keeps cells and proteins from going into tissues; it also contains substances that control the ___________________ of underlying smooth muscle.

2. The arterioles contain more smooth muscle and are under more nervous system control. They are the main ______________ vessels and regulate the force against which the heart must pump, or the afterload.

3. Arterioles vasoconstriction will narrow the circulatory highway, increasing _____________ and systemic vascular resistance.

4. Vasodilation relaxes the smooth muscle layers in the vessels and _____________ afterload and lowers blood pressure.

5. _______________ is the amount of blood returning to the heart and contained in the ventricles before a contraction.

6. _______________ is the extent to which the pressure of the vascular system increases as volume increases.

7. Blood pressure is controlled by centers in the brain that respond to changes in the ___________________ in the arterial system.

8. Blood pressure (BP) = cardiac output (CO) X ___________ __________________________.

9. Anything that increases CO or TPR will _______________ blood pressure and vice versa.

10. Anything that decreases heart rate, diminishes stroke volume, or decreases total peripheral resistance will _______________ blood pressure.

11. Hypertension can be characterized by an _______________ in systolic blood pressure, diastolic blood pressure, or both.

12. _______________ identifies patients whose blood pressure is likely to increase to the hypertension classification.

13. _______________ _______________ disease may include left ventricular hypertrophy, transient ischemic attacks, peripheral vascular disease, retinopathy, or protein in the urine.
14. Many people with hypertension are ____________________________.

15. __________________________________ work on different parts of the blood pressure equation
to either decrease cardiac output or decrease total peripheral resistance.

16. __________________________ lifestyle modification treatment is preferred for hypertension.

17. The goal blood pressure should be less than ______ mmHg unless the patient has diabetes,
chronic kidney disease, or coronary artery disease which the goal should be less than
________ mmHg.

18. __________________ hypotension occurs when blood pressure drops as the patient moves
from a sitting to a standing position.

19. A2-receptors block the release of ______________________ and this blockage causes
vasodilation and reduces blood pressure.

20. Clonidine is an example of ___ ______________________________ agonists.

21. A1-blockers or antagonists block receptors in both arterioles and veins, thus causing
____________________ .

22. __________________________ are well known for their ability to cause orthostatic
hypotension.

23. Minipress is a common ____________________________.

24. B-blockers inhibit sympathetic activity and __________________ the rate and force of
contraction, thus lowering blood pressure.

25. Lopressor is a common be ____________________________.

26. ______________________ basically do not allow sodium to be reabsorbed back into the
peritubular capillary system.

27. Different diuretics work on different sites in the kidney, and they are classified according to the
site in the ____________________________ where they work.
28. __________________ diuretics are preferred as antihypertensives unless the patient has severe kidney disease.

29. Thiazide diuretics lower blood volume by __________________ sodium and water excretion and therefore lower blood pressure.

30. Three different classes of diuretics are used to treat hypertension: thiazides, loop, and __________________.

31. Side effects of __________________ may include hypokalemia, hypomagnesemia, hyperuricemia and hyperglycemia.

32. __________________ diuretics decrease sodium, chloride, and water absorption at the loop of Henle by blocking absorption of chloride into the blood stream.

33. Loop diuretics are the most __________________ diuretics and are generally reserved for patients with severe chronic kidney failure.

34. Lasix is an example of a __________ diuretic.

35. __________________ diuretics do not allow potassium to be excreted along with the sodium as thiazides or loop diuretics.

36. Spironolactone is an example of a potassium-sparing __________________.

37. The kidneys are involved in blood pressure regulation through the __________________ system.

38. Ace inhibitors decrease blood levels of angiotensin II and aldosterone by __________________ the renin-angiotensin-aldosterone system and thereby lowering blood pressure.

39. ACE inhibitors have up to a 20% incidence of ______________ as a side effect.

40. Vasotec is a common __________ ________________.

41. __________ inhibit angiotensin II at receptor sites on the blood vessels and therefore act differently than ACE inhibitors.

42. ARBs are an __________________ for patients with a cough side effect from an ACE inhibitor.
43. Cozaar is a common ______ ________________.

44. ______________ produce arteriole relaxation by blocking calcium needed for vascular smooth muscle contraction resulting in vasodilation.

45. The most common side effect of CCBs is ___________________________ ___________ and dizziness.

46. Norvasc is a common ______.

47. Vasodilators are usually considered ________________ therapy for non-acute hypertension treatment.

48. Vasodilators can cause a reflex ________________ and peripheral edema so they are frequently combined with a b-blocker and a diuretic.

49. Hydralazine is a common ____________________________.

50. Systolic blood pressure greater or equal to 180 mmHg or diastolic blood pressure greater or equal to 120 mmHg can be immediately ____________________________.

51. ________ drugs are usually used for hypertensive urgencies, while _____ medications are reserved for hypertensive emergencies.

52. Nitropress is a potent agent that is used for minute-to-minute control of hypertensive ________________.

53. IV nitroglycerin is especially useful when hypertension occurs concurrently with ________________ because it dilates both arterioles and veins, reducing both preload and afterload.

54. The goal of anticoagulant therapy is to ___________________________ clot formation in patients at risk and to prevent clot extension and ___________________________.

55. Antiplatelet drugs inhibit the ___________________________ and release of thromboplastin to begin the process.

56. Fibrinolytics actually dissolve and liquefy the ________________ of the existing clot.
Chapter 10 Worksheet

Blood Pressure and Antithrombotic Agents

57. Anticoagulants _____________ steps in the clotting cascade leading to fibrin formation and do not dissolve existing clots.

58. ___________ is a parenteral anticoagulant that binds with antithrombin to inhibit the conversion by thrombin of fibrinogen to fibrin.

59. The therapeutic goals, depending on the heparin indication, are aimed at increasing the _______________ _______________ _______________ time to a certain laboratory-defined range.

60. The activated partial thromboplastin time (aPTT) lab test is used to make _______________ adjustments for heparin.

61. The _______________ _______________ lab test, which is used to make dosage adjustments for warfarin.

62. Heparin can cause _______________ and even osteoporosis with long-term use.

63. _______________ is the most important side effect of heparin.

64. Warfarin agents are ___________ anticoagulants.

65. Warfarin works on vitamin K-dependent liver synthesis of certain clotting factors by _______________ vitamin K, which is vital to the clotting process.

66. _______________ is being researched as a new oral anticoagulant that does not require dosage and laboratory monitoring adjustment, and which may be an alternative to warfarin.

67. Anything that increases _______________ , such as yellow or green leafy vegetables, can also affect warfarin response.

68. Patients on _______________ need to be monitored for bleeding gums, nose bleeds, petechiae, or blood in the urine or stools.

69. Patients taking warfarin are instructed to not take _______________ concurrently.

70. ___________ is a point-of-care test done bedside for direct thrombin inhibitors.

71. _______________ agents inhibit the platelet phase of clotting and are also called antithrombotic drugs.
72. Platelet glycoprotein IIb/IIIa receptor inhibitors are administered parenterally and __________ with and ___________ GP IIb/IIIa receptors, which initiate platelet aggregation.

73. Fibrinolytics stimulate __________________________ mechanisms to dissolve existing clots.

74. There are two main types of __________________________; enzymes and tissue plasminogen activators (tPAs).

75. The tPAs are produced commercially by ________ technology.