

NEMAHA COUNTY COMMUNITY HEALTH SERVICE

P.O. Box 146

Sabetha, KS 66534

Installers Test – Wastewater Management System

Name: _____

Business Name: _____

Address: _____

Telephone Number: _____ Date: _____

INSTRUCTIONS: Questions are to be answered according to Nemaha County requirements. A copy of the Nemaha County Sanitary/Environmental Codes and K.D.H.E. Bulletin 4-2 have been provided and can be used while taking this test. Place your answer on the line provided. Read the questions carefully; some ask for minimums and some ask for maximums. Answers for questions will be in parenthesis. ()

ADMINISTRATIVE PROCESS DUTIES (1 point each)

1. When did the Sanitary/Environmental Codes of Nemaha County become effective? (see front cover)

2. This code is adopted under the legal authority granted to the (1-1.1)

3. The County Commissioners find that it is necessary to adopt a sanitation code to _____ and _____ the development of environmental conditions that are hazardous to health and safety, and promote the _____ and _____ of the land and water resources of the county.
(1-1.2)
4. The purpose of the code is: (1) To prescribe administrative procedures; (2) to prescribe rules and regulations; and, (3) to establish administrative procedures to facilitate _____ and _____ regulation while recognizing the rights of affected persons to receive _____ processing and to _____ administrative decisions.
(1-1.3)
5. The Administrative Agency for Nemaha County is _____
(1-2.1)
6. This code shall not apply to any premises under one ownership which exceeds _____ acres in area, and which is used only for _____ purposes. Agricultural purpose do not include the _____. (1-2.3)
7. _____. Any person who is designated by the Administrative Agency to administer this code. (1-2.4)

8. _____ . Any building or structure occupied by a human being on either a full or part time basis. (1-2.7)
9. _____ . Means any person designated by the County Commissioners to hear appeals from decisions of the Administrative Agency. (1-2.9)
10. _____ / _____. Means a right formally granted in writing by the Administrative Agency. (1-2.10)
11. The power and authority of the Administrative Agency to inspect, examine, and/or survey premises for compliance with the code is called the _____. (1-3.1)
12. The Administrative Agency shall begin such investigations and inspections as necessary to determine whether the permit or license should be issued or denied within _____ days after the receipt of the application. (1-3.3.2)

WASTEWATER AND DISPOSAL (1 point each)

13. The provisions of this chapter are adopted for the purpose of regulating and controlling the _____, _____ and _____ of septic systems, alternate waste water systems, privies, and the removal and disposal of materials removed from such facilities. (2-1.0)
14. _____. A configuration of onsite trenches installed to absorb sewage effluent from a septic tank. (2-3.1)
15. _____. To make different, modify or change. (2-3.2)
16. _____. Accepted or acceptable by the Administrative Agency in accordance with applicable specifications of the code. (2-3.4)
17. _____. Means horizontal unless otherwise designated. (2-3.5)
18. _____. All water borne wastes produced at family dwellings in connection with ordinary family living. (2-3.6)
19. _____. An artificial pond designed to receive raw sewage for biological decomposition. (2-3.9)
20. _____. A system that includes a septic tank, absorption field and all other elements intended to be used for management and disposal of sewage onsite. (2-3.11)
21. _____. To make good, strong or whole after damage. (2-3.15)
22. _____. The pumping out or removal of wastes, sludge or human excreta from privies, or septic systems. (2-3.16)
23. _____. An approved water tight structure installed underground to receive sewage. (2-3.17)
24. _____. An excavation or opening into the ground by which ground water is

sought or obtained. (2-3.20)

25. Prohibited practices include the use of wastewater systems that:
- a. Have been constructed after _____
 - b. Have been enjoined as a _____
 - c. Fails to comply with the provisions of the _____
 - d. Receives _____
- (2-4.1)
26. No household, industrial or commercial wastes shall be discharged into any _____, _____, _____ or _____, _____ or _____, _____ or upon the _____ shall be prohibited. In no case shall treated or untreated sewage or effluent be permitted to drain directly into a _____ or _____ (2-4.2a)
27. All sewage management systems within _____ feet of a public sewer system must Connect to that system. (2-4.3)
28. No _____ of a sewage management system can be built within a flood pool, flood plain or floodway. (2-4.4)
29. All portions of a sewage management system shall be _____ feet from a water well or suction line. (2-4.5)
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30. Plans and specification for public wastewater systems must be approved by _____. (2-5.1)
31. No person shall _____ or _____ an onsite sewage management system without obtaining construction approval from the Administrative Agency. (2-6.2a)
32. All applicants will be required to sign an application form to acknowledge the sewage system must be _____ and _____ according to the approved plan. (2-6.2b)
33. No site for a sewage system shall be approved if:
- a. connection to a _____ is feasible.
 - b. the _____, _____ and _____ violates the requirements of the code. (2-6.4)
34. Newly constructed or altered sewage management systems must be made accessible to the Administrative Agency and left uncovered for inspection. (2-6.5)
- True False
35. All persons holding a permit for use of onsite sewage management system and responsible for its operation shall operate and maintain the system in good working condition. (2-6.6)
- True False
36. Plans for construction of a single family lagoon shall be submitted to the Administrative Agency for approval and permit. (2-7.1)

- True False
37. Lots must contain no less than _____ acres of land to be considered for lagoon construction. (2-7.1)
38. Proposals for other alternatives or experimental sewage disposal systems may be submitted to the Administrative Agency. (2-7.2)
True False
39. A privy cannot be constructed or modified until the plans have been approved by the Administrative Agency for approval. (2-7.3.1)
True False
40. Dry chemical toilets can be used in special cases with the approval of the Administrative Agency. (2-7.3.6)
True False
41. Minimum standards for soil percolation rates state that a percolation rate must be more than _____ inch per _____. (2-8.0)
True False
42. A house or structure cannot be occupied until the onsite sewage management system has been approved by the Health Department. (2-3.4b)
43. An individual cannot remove domestic wastes from their own septic systems. (2-9.1)
True False
44. Individuals who remove domestic wastes from septic systems or privies other than their own shall provide the Administrative Agency with the location of the _____ and the method of _____. (2-9.1)
45. The disposal site for domestic wastes must be approved by the _____, the _____ and _____. (2-9.2)
46. No person shall offer service as wastewater/sewage system installer in Nemaha County without a valid license from the Administrative Agency. (2-10.1)
True False
47. An individual can construct or alter his/her own wastewater system without requiring said license based on the installation meeting county sanitary codes and that he/she constructs no more than one system in any one calendar year. (2-10.6)
True False

Fill in the blank

25. Design flow is estimated by multiplying the number of bedrooms by _____. (KDHE 4-2)

26. When calculating wastewater flow, note that _____ may increase water use by as much as 10 gallons per capita per day. (KDHE 4-2)
27. The soil evaluation performed by a trained and qualified person includes: _____

_____. (KDHE 4-2)
28. The septic tank is sized so that wastewater flow through the tank takes at least _____ even with the sludge and scum accumulation. (KDHE 4-2)
29. Septic tanks must have sufficient capacity for the minimum recommended volume of _____ the daily wastewater flow. (KDHE 4-2)
30. The typical precast concrete septic tank shall have a minimum wall thickness of _____. (KDHE 4-2)
31. If a two-compartment tank is used, the first compartment shall be sized to contain from _____ to _____ of the total tank capacity. (KDHE 4-2)
32. The distance between the top of the tank and the outlet invert should be at least _____ of the liquid depth with a minimum of _____. (KDHE 4-2)
33. The inlet and outlet baffle or tee and compartment baffle should extend above the liquid level to _____ below the top of the tank to allow gas to escape. (KDHE 4-2)
34. The minimum septic tank capacity for a 1 to 3 bedroom home is _____.
(KDHE 4-2)
35. The required separation distance from a septic tank to:
the foundation of a house or other building is _____ (KDHE 4-2)
the property lines _____ (KDHE 4-2)
a private well _____ (KDHE 4-2)
36. Access _____ should be at surface grade, but shall not be more than _____ inches below surface grade. (KDHE 4-2)
37. The invert of the inlet pipe shall be located at least _____ inches above the invert of the outlet when the tank is level. (KDHE 4-2)
38. The septic tank or pumping tank inlet should extend at least _____ inches below the liquid level, but should not penetrate deeper than _____ percent of the liquid depth. (KDHE 4-2)
39. The outlet tee or baffle should generally extend below the liquid surface a distance equal to _____ percent of the liquid depth. (KDHE 4-2)
40. Inlet and outlet openings shall be designed and constructed to be _____ for at least a 20 year life of the system. (KDHE 4-2)
41. The wastewater design flow is based on the number of bedrooms multiplied by _____

- gpd per bedroom. (KDHE 4-2)
42. The soil absorption area is obtained by dividing the wastewater flow in gallons per day (gpd) by the _____. (KDHE 4-2)
43. Multiply: A four bedroom home with acceptable soils shall have _____ feet of lateral.
44. The maximum gravity lateral run shall not exceed _____ feet and preferably should be less than _____ feet. (KDHE 4-2)
45. The minimum spacing for trench widths ranges from _____ inches to _____ inches. (KDHE 4-2).
46. Generally, the total trench depth should be as shallow as possible, but not less than _____ inches. (KDHE 4-2)
47. Absorption field trenches should be separated by at least _____ feet of undisturbed soil. (KDHE 4-2)
48. A minimum of _____ inches of rock or gravel shall be placed in the trench under the distribution pipe followed by enough gravel to cover the pipe by 2 inches. (KDHE 4-2)
49. The soil cover over the trench should not be less than _____ inches nor more than _____ inches. (KDHE 4-2)
50. Perforated distribution pipe shall be used, and where pressure dosing is not required, _____ inch diameter pipe is adequate. (KDHE 4-2)
51. All materials used in the plumbing wastewater line and lateral fields shall meet standards specified by _____. (KDHE 4-2)
52. _____ or _____ is commonly used as the porous media for the trench. (KDHE 4-2)
53. There shall be a minimum of _____ feet between the bottom of the trench and groundwater, bedrock or other restriction. (KDHE 4-2)
54. _____ or _____ is recommended for all sites that slope 1 ½ % or more. (KDHE 4-2)
55. For sites that slope more than 1% but less than 1 ½%, a _____ system can be used. (KDHE 4-2)
56. In gravity lateral pipes, _____ are circular, _____ inch in diameter and are placed at _____ and _____ o'clock positions on the pipe circumference. (KDHE 4-2)

*** Note: In no circumstances is slotted pipe acceptable.**

57. The distance from the wastewater lagoon to the property line shall be at least _____ feet.

(KDHE 4-2)

58. The distance from the wastewater lagoon to the dwelling foundation shall be at least _____ feet. (KDHE 4-2)

Complete this chart

(5 points)

SEPARATION DISTANCES

	Required Minimum (ft)	Recommended Minimum (ft)
Septic tank to:		
Foundation of house or other buildings		
Property line		
Well or suction line		
Surface water course		
Soil absorption system to:		
Foundation of house or building		
Property line		
Well or suction line		
Surface water course		
Waste water lagoon to:		
Property line		
Well (same as septic tank)		

Complete this layout

(10 points)

NOTE: distances from buildings, wells, property lines

NOTE: Lateral line length, distance between laterals

- DATA:
1. Existing 3 bedroom home
 2. Existing 1000 gallon septic tank (sewage possibly drains to ditch at rear of property)
 3. No absorption field.
 4. Acceptable soil.
 5. Level terrain.