

Laws and Regulations Quiz

**2007 C.L. Davis, DVM Foundation
Topics in Laboratory Animal Medicine**

May 18, 2007

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This is not an ACLAM sanctioned presentation

All information is deemed reliable and correct

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Question 1

Under the Good Laboratory Practices Regulations (Food and Drug Administration, 1978) which of the following is false?

- a. Every GLP study must have a study director.**
- b. Basic research studies, clinical or field trials in animals are covered by the GLP regulations.**
- c. FDA inspections of commercial laboratories are conducted without prior notification.**
- d. Each institution performing GLP studies, must also have a quality assurance unit**

Question 1

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- b. Basic research studies, clinical or field trials in animals are covered by the GLP regulations.**
- c. FDA inspections of commercial laboratories are conducted without prior notification.**
- d. Each institution performing GLP studies, must also have a quality assurance unit**

Answer: b.

Reference: Laboratory Animal Medicine. Fox, J.G., et al. pg 26-27.

Question 2

The Convention on International Trade in Endangered Species (CITES) is enforced by which agency?

- a. USDA**
- b. U.S Center for Disease Control and Prevention**
- c. U.S. Fish and Wildlife Service**
- d. U.S. Department of Endangered Species**

Question 2

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- a. USDA**
- b. U.S Center for Disease Control and Prevention**
- c. U.S. Fish and Wildlife Service**
- d. U.S. Department of Endangered Species**

Answer c.

Reference: LAM pg.30

Question 3

Regarding Biosafety Level-2, when etiologic agents are in use, the biohazard sign at the lab entrance does not need to include?

- a. personal protective equipment requirements**
- b. required immunizations**
- c. procedures required for exiting the lab**
- d. veterinary emergency contact info**

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- d. veterinary emergency contact info**

Answer: d.

Reference: BMBL 4th edition, pg 21

Question 4

According to the Guide, which of the following is NOT listed as a necessary member of the IACUC?

- a. committee chair**
- b. doctor of veterinary medicine**
- c. practicing scientist**
- d. a public member**

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- b. doctor of veterinary medicine**
- c. practicing scientist**
- d. a public member**

Answer: a.

Reference: The Guide, pg. 9

Question 5

According to the A.W.A, primary enclosures used to transport nonhuman primates must be clearly marked in English with the words _____ in letters at least 1” high.

- a. Danger, Nonhuman primates**
- b. Do not touch or Keep hands away**
- c. Live animals or Wild animals**
- d. Frugivore, feed accordingly**

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- d. Frugivore, feed accordingly**

Answer: c

Reference: AWA 3.87, f.

Question 6

An official USDA tag must have all the following except:

- a. identification number**
- b. the letters “USDA”**
- c. numbers and letters identifying the state and dealer**
- d. animal’s date of birth**

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Answer: d.

Reference: AWA 2.51,b.

Question 7

Research facilities that obtain dogs or cats from sources other than dealers, exhibitors, and persons who are exempt from licensing regulations must hold the animals for ____ full days before using them in a research project, not including the day of acquisitions or time in transit.

- a. 3**
- b. 5**
- c. 7**
- d. 10**

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- a. 3**
- b. 5**
- c. 7**
- d. 10**

Answer: b.

Reference: AWA 2.38,j.

Question 8

The National Fire Protection Association has classified fires into four types. A Class B fire could be caused by which of the following groups of materials?

- a. Lab equipment, lighting systems**
- b. Combustible metals**
- c. Bedding, paper gowns**
- d. Flammable solvents**

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- b. Combustible metals**
- c. Bedding, paper gowns**
- d. Flammable solvents**

Answer: d.

Reference: Occupational Health and Safety in the Care and Use of Research Animals. 1997. pg 35.

Question 9

Research facilities must have a mechanism in place for ensuring that animals are reported in the appropriate pain category on the annual report (APHIS Form 7023). In what column should animals experiencing pain or distress, which is alleviated with anesthetics, analgesics, sedatives, and/or tranquilizers reported in?

- a. Column B**
- b. Column C**
- c. Column D**
- d. Column E**

Question 9

Research facilities must have a mechanism in place for ensuring that animals are reported in the appropriate pain category on the annual report (APHIS Form 7023). In what column should animals experiencing pain or distress, which is alleviated with anesthetics, analgesics, sedatives, and/or tranquilizers reported in?

- a. Column B**
- b. Column C**
- c. Column D**
- d. Column E**

Answer: c.

**Reference: Animal Care Policy #11-Painful/Distressful Procedures-
April 14, 1997**

Question 10

Which class of lasers can produce injury if viewed directly?

- a. Class I**
- b. Class II**
- c. Class IIIa**
- d. Class IIIb**
- e. Class IV**

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- c. Class IIIa**
- d. Class IIIb**
- e. Class IV**

Answer: d.

Reference: Occ. Health and Safety in the Care and Use of Res. Animals. 197. pg 37.

Question 11

During surface transportation, inside primary conveyance, what ambient temperature range must be kept at all times?

- a. 35-75° F**
- b. 40-70° F**
- c. 45-85° F**
- d. 50-90° F**

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- b. 40-70° F**
- c. 45-85° F**
- d. 50-90° F**

Answer: c.

Reference: AWA 3.88,e.

Question 12

Which document defines an animal as “any live vertebrate animal used or intended for use in research, research training, experimentation or biological testing or for related purposes”?

- a. Public Health Service Policy**
- b. Animal Welfare Act**
- c. The Guide for the Care and Use of Laboratory Animals**
- d. The Health Research Extension Act**

Question 12

Which document defines an animal as “any live vertebrate animal used or intended for use in research, research training, experimentation or biological testing or for related purposes”?

- a. Public Health Service Policy**
- b. Animal Welfare Act**
- c. The Guide for the Care and Use of Laboratory Animals**
- d. The Health Research Extension Act**

Answer: a.

Reference: PHS Policy on Humane Care and Use of Laboratory Animals III. A. 1996.

Question 13

According to the 2000 AVMA Panel on Euthanasia, manual cervical dislocation is a humane technique for rats that weigh _____?

- a. There is no weight limit for this technique in rats**
- b. <400grams**
- c. <300grams**
- d. <200grams**

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Answer: d.

Reference: 2000 AVMA Panel on Euthanasia.

Question 14

When conducting studies with laboratory rodents experimentally infected with *Bacillus anthracis*, what level of biosafety is recommended for personnel protection?

- a. BSL 1**
- b. BSL 2**
- c. BSL 3**
- d. BSL 4**

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- b. BSL 2**
- c. BSL 3**
- d. BSL 4**

Answer: b.

Reference: BMBL, Section VII-A-Bacterial Agents, pg 88.

Question 15

What is the correct order of preference for euthanasia of small animals (<7kg) with inhalant anesthetics?

- a. Desflurane-methoxyflurane-sevoflurane-isoflurane-enflurane-halothane**
- b. Sevoflurane-isoflurane-enflurane-halothane-desflurane-methoxyflurane**
- c. Methoxyflurane-sevoflurane-isoflurane-enflurane-halothane-desflurane**
- d. Halothane-enflurane-isoflurane-sevoflurane-methoxyflurane-desflurane**

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- b. Sevoflurane-isoflurane-enflurane-halothane-desflurane-methoxyflurane**
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- d. Halothane-enflurane-isoflurane-sevoflurane-methoxyflurane-desflurane**

Answer: d.

Reference: 2000 AVMA Panel of Euthanasia

Question 16

In the Guide, laboratory animals are defined as:

- a. Any live or dead animal used in research, teaching, or testing**
- b. Any live or dead dog, cat or NHP, GP, hamster or rabbit or any other warm blooded animal used for research teaching, testing, experimentation or exhibition.**
- c. Any vertebrate animal used in research, teaching or testing.**
- d. Any live vertebrate animal used or intended for use in research, research training, experimentation or biological testing or for related purposes.**

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- c. Any vertebrate animal used in research, teaching or testing.**
- d. Any live vertebrate animal used or intended for use in research, research training, experimentation or biological testing or for related purposes.**

Answer: c.

Reference: The Guide, Introduction, pg. 1

Question 17

During transportation, how often should a 5 year old nonhuman primate be offered food and water?

- a. Food once every 24 hr; water once every 12 hr**
- b. Food once every 12 hr; water once every 12 hr**
- c. Food once every 8 hr; water once every 8 hr**
- d. Food ad lib; water by bottle continuously**

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- c. Food once every 8 hr; water once every 8 hr**
- d. Food ad lib; water by bottle continuously**

Answer: a.

Reference: AWA 3.89,a.

Question 18

If dogs are exempt from the exercise program due to their health, condition, or well-being, and the basis for the exemption is not permanent, how often must the attending veterinarian review the need for the exemption?

- a. Annually**
- b. Every 90 days**
- c. Every 60 days**
- d. Every 30 days**

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- a. Annually**
- b. Every 90 days**
- c. Every 60 days**
- d. Every 30 days**

Answer: d.

Reference: AWA 3.8,a.

Question 19

According to the Guide, which of the following would not adequately justify multiple major survival surgeries?

- a. To conserve scarce animal resources**
- b. To save time for research group and also reduce financial outlay**
- c. Scientifically justified and approved by the IACUC**
- d. If additional surgeries are needed for clinical reasons**

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- c. Scientifically justified and approved by the IACUC**
- d. If additional surgeries are needed for clinical reasons**

Answer: b.

Reference: The Guide, Multiple Major Surgical Procedures, pg12.

Question 20

According to PHS Policy regarding institutional status, what is the difference between Category 1 and Category 2 institutions?

- a. Size of the institution**
- b. Presence of non-human primates at the institution**
- c. AAALAC accreditation**
- d. Attending veterinarian is an ACLAM Diplomate**

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Answer: c.

Reference: PHS Policy IV.A.2.

Question 21

According to the Guide, storage areas for dead animals and animal-tissue waste should be kept below what temperature?

- a. 0° C (32° F)**
- b. 4° C (39.2° F)**
- c. 7° C (44.6° F)**
- d. 10° C (50° F)**

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- d. 10° C (50° F)**

Answer: c.

Reference: The Guide, pg 77.

Question 22

Urine is a major source of allergens from which of the following species?

- a. Mouse, rat, guinea pig**
- b. Mouse, rabbit, ferret**
- c. Mouse, rat, reptile**
- d. Mouse, dog, cat**

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- b. Mouse, rabbit, ferret**
- c. Mouse, rat, reptile**
- d. Mouse, dog, cat**

Answer: a.

Reference: Occupational Health and Safety in the Care and Use of Research Animals. 1997. pg 54-59.

Question 23

Which of the following correctly represents the meaning of the acronym HEPA?

- a. Highly Energized Partitions in Air**
- b. Horizontal Escalating Particulate Air**
- c. High Efficiency Particulate Air**
- d. High Efficiency Partitioned Air**

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Answer: c.

Reference: LAM 2nd edition, pg 919.

Question 24

The official definition of a HEPA filter is a filter that:

- a. Filters out 99.00% of all particles $\geq 0.3\mu\text{m}$**
- b. Filters out 97.00% of all particles $\geq 0.3\mu\text{m}$**
- c. Filters out 99.97% of all particles $\geq 0.5\mu\text{m}$**
- d. Filters out 99.97% of all particles $\geq 0.3\mu\text{m}$**

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- c. Filters out 99.97% of all particles $\geq 0.5\mu\text{m}$**
- d. Filters out 99.97% of all particles $\geq 0.3\mu\text{m}$**

Answer: d.

Reference: LAM 2nd edition, pg 919.

Question 25

When conducting studies utilizing nonhuman primates and guinea pigs experimentally or naturally infected with *Mycobacterium tuberculosis*, what level of biosafety is recommended for personnel protection? (Select the single best answer)

- a. BSL 3 for NHP's; BSL 3 for guinea pigs**
- b. BSL 3 for NHP's; BSL 2 for guinea pigs**
- c. BSL 2 for NHP's; BSL 2 for guinea pigs**
- d. BSL 2 for NHP's' BSL 3 for guinea pigs**

Question 25

When conducting studies utilizing nonhuman primates and guinea pigs experimentally or naturally infected with *Mycobacterium tuberculosis*, what level of biosafety is recommended for personnel protection? (Select the single best answer)

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- b. BSL 3 for NHP's; BSL 2 for guinea pigs**
- c. BSL 2 for NHP's; BSL 2 for guinea pigs**
- d. BSL 2 for NHP's' BSL 3 for guinea pigs**

Answer: b.

Reference: BMBL; Agent Summary- Bacteria. pg 104.

Question 26

Who is responsible for insuring that personnel performing surgical procedures on animals are appropriately qualified and trained?

- a. Principal investigator**
- b. Individual performing the surgical procedure**
- c. Attending veterinarian**
- d. Institutional Animal Care and Use Committee**

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- c. Attending veterinarian**
- d. Institutional Animal Care and Use Committee**

Answer: d.

Reference: The Guide, pg.61.

Question 27

According to the Guide, at least how often should the IACUC meet?

- a. Monthly**
- b. Quarterly**
- c. Every 6 months**
- d. Every 12 months**

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- a. Monthly**
- b. Quarterly**
- c. Every 6 months**
- d. Every 12 months**

Answer: c.

Reference: The Guide, pg. 9

Question 28

Which entity is responsible for requesting, negotiating, approving, disapproving, restricting, or withdrawing approval of Public Health Service Assurance?

- a. USDA**
- b. Department of Health and Human Services**
- c. OLAW**
- d. APHIS**

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- a. USDA**
- b. Department of Health and Human Services**
- c. OLAW**
- d. APHIS**

Answer: c.

Reference: PHS Policy IV. A.

Question 29

According to PHS Policy, who makes appointments to the IACUC?

- a. Attending veterinarian**
- b. Institutional official**
- c. IACUC Chairperson**
- d. Chief Executive Officer**

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- d. Chief Executive Officer**

Answer: d.

Reference, PHS Policy IV.A.3.a

Question 30

In the United States, which of the following is responsible for enforcing the Lacey Act?

- a. Department of the Interior, U.S. Fish and Wildlife Service**
- b. Department of Health and Human Services**
- c. The Environmental Protection Agency**
- d. Department of Agriculture, APHIS**

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- a. Department of the Interior, U.S. Fish and Wildlife Service**
- b. Department of Health and Human Services**
- c. The Environmental Protection Agency**
- d. Department of Agriculture, APHIS**

Answer: a.

Reference: LAM 2nd edition, pg. 30.

Question 31

In accordance with the Animal Welfare Act, at what interval must research facilities, intermediate handlers, and common carriers of regulated species register with the USDA?

- a. Every year**
- b. Every 2 years**
- c. Every 3 years**
- d. Every 4 years**

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- a. Every year**
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- c. Every 3 years**
- d. Every 4 years**

Answer: c.

Reference: LAM 2nd edition, pg. 21.

Question 32

How often must importers of nonhuman primates register with the CDC?

- a. Every year**
- b. Every 2 years**
- c. Every 3 years**
- d. Every 4 years**

Question 32

How often must importers of nonhuman primates register with the CDC?

- a. Every year**
- b. Every 2 years**
- c. Every 3 years**
- d. Every 4 years**

Answer: b.

Reference: LAM 2nd edition, pg 30.

Question 33

The Animal Welfare Act authorizes the USDA to develop regulations based on the act. The USDA is required to publish any new regulations or changes in existing regulations in the Federal Register. The public is allowed a specific time period during which to comment. What is the allowed time period?

- a. 30 days**
- b. 60 days**
- c. 90 days**
- d. 120 days**

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- b. 60 days
- c. 90 days
- d. 120 days

Answer: b.

Reference: LAM 2nd edition, pg 21.

Question 34

Dogs and cats acquired by a dealer or exhibitor from a contract animal pound or shelter must be held for at least how many days?

- a. 3 days**
- b. 5 days**
- c. 7 days**
- d. 10 days**

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- a. 3 days**
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- c. 7 days**
- d. 10 days**

Answer: d.

Reference: LAM 2nd edition, pg 21.

Question 35

Which of the following is NOT true regarding use of tricaine methane sulfonate (MS 222) when used for euthanasia?

- a. A concentration of ≥ 250 mg/L is recommended and fish should be left in solution for at least 10 minutes**
- b. There is a 21-day withdrawal time for MS 222**
- c. MS 222 solutions can be highly basic and should be buffered HCl before use with animals**
- d. MS 222 is appropriate for euthanasia of amphibians as well as fish species.**

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Which of the following is NOT true regarding use of tricaine methane sulfonate (MS 222) when used for euthanasia?

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- b. There is a 21-day withdrawal time for MS 222**
- c. MS 222 solutions can be highly basic and should be buffered HCl before use with animals**
- d. MS 222 is appropriate for euthanasia of amphibians as well as fish species.**

Answer: c.

Reference: 2000 AVMA Panel of Euthanasia.

Question 36

When working with *Mycobacterium tuberculosis*, liquefaction and concentration of sputa for acid-fast staining may be conducted safely on the open bench _____ (pick the best answer that makes this a TRUE statement).

- a. By first treating the specimen in a Class I or II safety hood with an equal volume of 5% sodium hypochlorite solution (household bleach) and waiting 15 minutes**
- b. Refrigeration prior to use at $<4^{\circ}$ C**
- c. Without any prior treatment or precautions**
- d. When flame drying slides only**

Question 36

When working with *Mycobacterium tuberculosis*, liquification and concentration of sputa for acid-fast staining may be conducted safely on the open bench _____ (pick the best answer that makes this a TRUE statement).

- a. By first treating the specimen in a Class I or II safety hood with an equal volume of 5% sodium hypochlorite solution (household bleach) and waiting 15 minutes
- b. Refrigeration prior to use at $<4^{\circ}\text{C}$
- c. Without any prior treatment or precautions
- d. When flame drying slides only

Answer: a.

Reference: BMBL, Agent Summary Statements, Bacteria.

Question 37

UV-B or UV-C radiation should not be used in the presence of chlorinated solvents because of the possibility of producing what potent lung irritant?

- a. Ammonia**
- b. Trichloroethanol**
- c. Chlorofluorocarbons**
- d. Phosgene**

Question 37

UV-B or UV-C radiation should not be used in the presence of chlorinated solvents because of the possibility of producing what potent lung irritant?

- a. Ammonia**
- b. Trichloroethanol**
- c. Chlorofluorocarbons**
- d. Phosgene**

Answer: d.

Reference: Occupational Health and Safety in the Care and Use of Research Animals, pg. 37.

Question 38

According to the National Research Council, which individual should be responsible for overseeing and delegating responsibilities for the Occupational Health and Safety Program?

- a. A medical doctor**
- b. A principal investigator**
- c. Attending veterinarian**
- d. The senior official of an institution**

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- a. A medical doctor**
- b. A principal investigator**
- c. Attending veterinarian**
- d. The senior official of an institution**

Answer: d.

Reference: NRC. Occupational Health and Safety in the Care and Use of Research Animals, pg 8.

Question 39

When transporting by surface vehicle, up to what age can litters of puppies or kittens of comparable size be transported together?

- a. 5 weeks**
- b. 8 weeks**
- c. 12 weeks**
- d. 20 weeks**

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- a. 5 weeks**
- b. 8 weeks**
- c. 12 weeks**
- d. 20 weeks**

Answer: b.

Reference: AWA 3.14, g, 2.

Question 40

The minimum height of a primary enclosure acquired after August 15, 1990, for guinea pigs in inches is?

- a. 7**
- b. 8**
- c. 9**
- d. 10**

Question 40

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- a. 7**
- b. 8**
- c. 9**
- d. 10**

Answer: a.

Reference: AWA, 3.28, c, 1,ii.

Question 41

A 5 square foot primary enclosure would be appropriate for a, individual rabbit up to ____ pounds?

- a. 9**
- b. 10**
- c. 12**
- d. 14**

Question 41

A 5 square foot primary enclosure would be appropriate for a, individual rabbit up to ____ pounds?

- a. 9**
- b. 10**
- c. 12**
- d. 14**

Answer: c.

Reference: AWA, 3.53, c,2.

Question 42

When more than one nonhuman primate is housed in a primary enclosure, the minimum space requirement for the enclosure is the_____ ?

- a. Sum of the minimum requirements for each individual**
- b. Square of the minimum requirements for each individual**
- c. Square of the minimum requirements for each individual multiplied by 0.9**
- d. Sum of the minimum requirements for each individual multiplied by 0.9**

Question 42

When more than one nonhuman primate is housed in a primary enclosure, the minimum space requirement for the enclosure is the _____ ?

- a. Sum of the minimum requirements for each individual
- b. Square of the minimum requirements for each individual
- c. Square of the minimum requirements for each individual multiplied by 0.9
- d. Sum of the minimum requirements for each individual multiplied by 0.9

Answer: a.

Reference: AWA, 3.80, b.

Question 43

Pens, runs, and outdoor housing areas with material that cannot be sanitized by steam under pressure or 180 degrees water and soap or thorough cleaning of organic material followed by clean water spray (i.e. gravel, sand, grass, etc.) (pick the best answer to make this statement true)

- a. Must be sanitized with 2% household bleach**
- b. Are exempt from routine sanitation**
- c. Must be sanitized by removal of contaminated material as necessary**
- d. Must be sanitized by covering contaminated material with >2" of additional material**

Question 43

Pens, runs, and outdoor housing areas with material that cannot be sanitized by steam under pressure or 180 degrees water and soap or thorough cleaning of organic material followed by clean water spray (i.e. gravel, sand, grass, etc.) (pick the best answer to make this statement true)

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- c. Must be sanitized by removal of contaminated material as necessary**
- d. Must be sanitized by covering contaminated material with >2” of additional material**

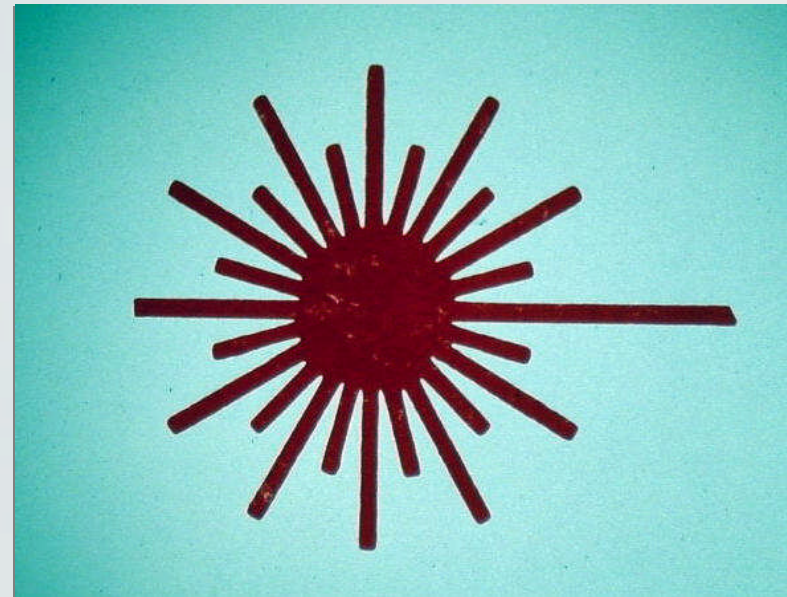
Answer: c.

Reference: AWA, 3.11,4.

Question 44

What does this safety symbol warn against?

- a. Carcinogens
- b. Extreme heat
- c. Laser
- d. Steam

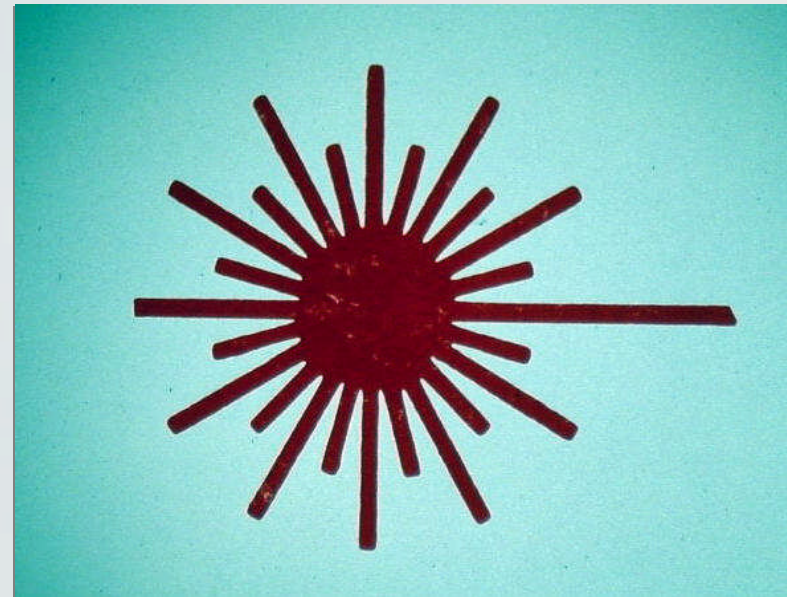


Question 44

What does this safety symbol warn against?

- a. Carcinogens
- b. Extreme heat
- c. Laser
- d. Steam

Answer: c.



Question 45

In accordance with the Animal Welfare Act, for how long must records that relate directly to activities approved by the IACUC be maintained beyond the duration of the activity?

- a. Duration of the activity only**
- b. Duration plus one year**
- c. Duration plus two years**
- d. Duration plus 3 years**

Question 45

In accordance with the Animal Welfare Act, for how long must records that relate directly to activities approved by the IACUC be maintained beyond the duration of the activity?

- a. Duration of the activity only**
- b. Duration plus one year**
- c. Duration plus two years**
- d. Duration plus 3 years**

Answer: d.

Reference: LAM 2nd edition, pg 23.

Question 46

According to the Guide, what is the maximum recommended temperature for storing purified and chemically defined diets?

- a. 4° C
- b. 12° C
- c. 18° C
- d. 21° C

Question 46

According to the Guide, what is the maximum recommended temperature for storing purified and chemically defined diets?

- a. 4° C
- b. 12° C
- c. 18° C
- d. 21° C

Answer: a.

Reference: Guide, 1996, pg 39.

Question 47

According to the Guide, what is the recommended dry-bulb temperature for housing rabbits?

- a. 64-84 F**
- b. 61-81 F**
- c. 62-75 F**
- d. 61-72 F**

Question 47

According to the Guide, what is the recommended dry-bulb temperature for housing rabbits?

- a. 64-84 F**
- b. 61-81 F**
- c. 62-75 F**
- d. 61-72 F**

Answer: d.

Reference: Guide, 1996, pg 32.

Question 48

Temperature control systems should be capable of maintaining temperatures within ____ degrees of the set point between 18 and 29° C. Fill in the blank.

- a. $\pm 1^{\circ}\text{C}$
- b. $\pm 2^{\circ}\text{C}$
- c. $\pm 3^{\circ}\text{C}$
- d. $\pm 4^{\circ}\text{C}$

Question 48

Temperature control systems should be capable of maintaining temperatures within ____ degrees of the set point between 18 and 29° C. Fill in the blank.

- a. $\pm 1^{\circ}\text{C}$
- b. $\pm 2^{\circ}\text{C}$
- c. $\pm 3^{\circ}\text{C}$
- d. $\pm 4^{\circ}\text{C}$

Answer: a.

Reference: LAM 2nd edition, pg 925 and the Guide pg 75.

Question 49

Which of the following is **NOT** true regarding the major mouse allergen Mus m 1?

- a. Mus m 1 is produced in the liver and saliva
- b. Mus m 1 is highly secreted in the urine
- c. Female mice secrete nearly twice as much Mus m 1 as male mice
- d. Mus m 1 has 80% amino acid sequence homology with Rat n1 B

Question 49

Which of the following is **NOT** true regarding the major mouse allergen Mus m 1?

- a. Mus m 1 is produced in the liver and saliva
- b. Mus m 1 is highly secreted in the urine
- c. Female mice secrete nearly twice as much Mus m 1 as male mice
- d. Mus m 1 has 80% amino acid sequence homology with Rat n1 B

Answer c.

Reference: Occ. Health and Safety in the Care and Use of Res. Animals, pg 56.

Question 50

According to the AWA, Class 'B' dealers may not obtain random source dogs and cats from which of the following sources?

- a. Licensed dealers**
- b. Hobby breeders**
- c. Shelters owned and operated by a state, county or city**
- d. Humane shelters or contract pounds**

Question 50

According to the AWA, Class 'B' dealers may not obtain random source dogs and cats from which of the following sources?

- a. Licensed dealers**
- b. Hobby breeders**
- c. Shelters owned and operated by a state, county or city**
- d. Humane shelters or contract pounds**

Answer: b.

Reference: AWA 2.132,a.

Question 51

An official USDA identification tag may not be used to identify more than one animal or reused within a _____ year period. (Fill in the blank)

- a. 2
- b. 3
- c. 5
- d. 7

Question 51

An official USDA identification tag may not be used to identify more than one animal or reused within a _____ year period. (Fill in the blank)

- a. 2
- b. 3
- c. 5
- d. 7

Answer: c.

Reference: AWA 2.38, g, 6.

Question 52

For rabbits housed outdoors, artificial cooling shall be provided when the outside temperature exceeds _____ ?

- a. 75° F**
- b. 80° F**
- c. 85° F**
- d. 90° F**

Question 52

For rabbits housed outdoors, artificial cooling shall be provided when the outside temperature exceeds _____ ?

- a. 75° F**
- b. 80° F**
- c. 85° F**
- d. 90° F**

Answer: d.

Reference: AWA 3.52, a

Question 53

For rabbits housed outdoors, shelter shall be provided when outside temperatures fall below _____?

- a. 30 °F**
- b. 35° F**
- c. 40° F**
- d. 45° F**

Question 53

For rabbits housed outdoors, shelter shall be provided when outside temperatures fall below _____?

- a. 30 °F**
- b. 35° F**
- c. 40° F**
- d. 45° F**

Answer: c.

Reference: AWA 3.52, a

Question 54

The institution must appoint an Institutional Biosafety Committee (IBC) that must have at least ___ members who have experience in recombinant DNA technology, biosafety, and physical containment, with at least ___ members not affiliated with the institution who represent the general interest of the surrounding community.

- a. 5, 2
- b. 3, 2
- c. 4, 3
- d. 3, 3

Question 54

The institution must appoint an Institutional Biosafety Committee (IBC) that must have at least ___ members who have experience in recombinant DNA technology, biosafety, and physical containment, with at least ___ members not affiliated with the institution who represent the general interest of the surrounding community.

- a. 5, 2
- b. 3, 2
- c. 4, 3
- d. 3, 3

Answer: a.

Reference: LAM 2nd edition, p31.

Question 55

Plastic or fiberglass-coated wire floors are now required if the wire is less than or equal to ____ inch in diameter.

- a. 1 inch**
- b. 1/2 inch**
- c. 1/4 inch**
- d. 1/8 inch**

Question 55

Plastic or fiberglass-coated wire floors are now required if the wire is less than or equal to ____ inch in diameter.

- a. 1 inch**
- b. 1/2 inch**
- c. 1/4 inch**
- d. 1/8 inch**

Answer: d.

Reference: LAM 2nd edition, p 937.

Question 56

According to the 2000 AVMA panel report on euthanasia, what is the best choice for equine euthanasia?

- a. Captive bolt**
- b. Succinylcholine**
- c. Pentobarbital or some pentobarbital combination**
- d. Gunshot**

Question 56

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- a. Captive bolt**
- b. Succinylcholine**
- c. Pentobarbital or some pentobarbital combination**
- d. Gunshot**

Answer: c.

Reference: 2000 AVMA panel report on euthanasia.

Question 57

Thoracic (cardiopulmonary) decompression is an appropriate physical technique of euthanasia in the field for which of the following?

- a. Diving birds**
- b. Voles**
- c. Small free-ranging birds**
- d. Mustelids**

Question 57

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- a. Diving birds**
- b. Voles**
- c. Small free-ranging birds**
- d. Mustelids**

Answer: c.

Reference: 2000 AVMA panel report on euthanasia.

Question 58

What must occur prior to using electrocution as a method of euthanasia for dogs, sheep or foxes?

- a. Physical restraint secured**
- b. Animal is rendered unconscious**
- c. Head must be moistened**
- d. Flammable materials removed from the premises**

Question 58

What must occur prior to using electrocution as a method of euthanasia for dogs, sheep or foxes?

- a. Physical restraint secured**
- b. Animal is rendered unconscious**
- c. Head must be moistened**
- d. Flammable materials removed from the premises**

Answer: b.

Reference: 2000 AVMA panel report on euthanasia.

Question 59

What is one of the stated disadvantages of potassium chloride as a method of euthanasia?

- a. Rippling of muscle tissue and clonic spasms may occur**
- b. Use in the field may leave highly toxic carcasses for scavengers**
- c. Potassium chloride is difficult to obtain**
- d. Potassium chloride use is required in conjunction with a physical method**

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- b. Use in the field may leave highly toxic carcasses for scavengers**
- c. Potassium chloride is difficult to obtain**
- d. Potassium chloride use is required in conjunction with a physical method**

Answer: a.

Reference: 2000 AVMA panel report on euthanasia.

Question 60

The minimum interior height of a rabbit enclosure must be?

- a. 12 in**
- b. 14 in**
- c. 16 in**
- d. 18 in**

Question 60

The minimum interior height of a rabbit enclosure must be?

- a. 12 in
- b. 14 in
- c. 16 in
- d. 18 in

Answer: b.

Reference: AWA 3.53, e,2.

Question 61

Primary enclosures for rabbits shall be sanitized at least?

- a. Once a day**
- b. Once every week**
- c. Once every other week**
- d. Once every 30 days**

Question 61

Primary enclosures for rabbits shall be sanitized at least?

- a. Once a day**
- b. Once every week**
- c. Once every other week**
- d. Once every 30 days**

Answer: d.

Reference: AWA 3.56,b,1.

Question 62

Not more than ___ live rabbits shall be transported in the same primary enclosure.

- a. 8**
- b. 10**
- c. 12**
- d. 15**

Question 62

Not more than ___ live rabbits shall be transported in the same primary enclosure.

- a. 8
- b. 10
- c. 12
- d. 15

Answer: d.

Reference: AWA, 3.61.

Question 63

**Minor allergenic components have been found in rabbit
_____ and _____?**

- a. Fur and urine**
- b. Saliva and urine**
- c. Fur and saliva**
- d. Saliva and serum**

Question 63

Minor allergenic components have been found in rabbit _____ and _____?

- a. Fur and urine**
- b. Saliva and urine**
- c. Fur and saliva**
- d. Saliva and serum**

Answer: b.

Reference: Occ. Health and Safety in the Care and Use of Res. Animals, pg 56.

Question 64

The major cat allergen is?

- a. Cat e 1*
- b. Sof a 1*
- c. Boh c 2*
- d. Fel d 1*

Question 64

The major cat allergen is?

- a. Cat e 1*
- b. Sof a 1*
- c. Boh c 2*
- d. Fel d 1*

Answer: d.

Reference: Occ. Health and Safety in the Care and Use of Res. Animals, pg 57.

Question 65

The minimum height for perimeter fencing of nonhuman primate housing is?

- a. 5 ft**
- b. 6 ft**
- c. 10 ft**
- d. 12 ft**

Question 65

The minimum height for perimeter fencing of nonhuman primate housing is?

- a. 5 ft**
- b. 6 ft**
- c. 10 ft**
- d. 12 ft**

Answer: b.

Reference: AWA 3.78,d.

Question 66

Innovative primary enclosures for nonhuman primates that do not precisely meet the specified requirements but do provide the animals with sufficient space and the opportunity to express species-typical behavior may be used when approved by the _____ at a research facility.

- a. IACUC**
- b. Attending veterinarian**
- c. Institutional official**
- d. Principal investigator's department Chair**

Question 66

Innovative primary enclosures for nonhuman primates that do not precisely meet the specified requirements but do provide the animals with sufficient space and the opportunity to express species-typical behavior may be used when approved by the _____ at a research facility.

- a. IACUC**
- b. Attending veterinarian**
- c. Institutional official**
- d. Principal investigator's department Chair**

Answer: a.

Reference: AWA 3.8,c.

Question 67

Fire alarms in a rodent housing facility should be selected to operate between?

- a. 100-200 kHz**
- b. 1200-1300 kHz**
- c. 400-500 kHz**
- d. 900-1000 kHz**

Question 67

Fire alarms in a rodent housing facility should be selected to operate between?

- a. 100-200 kHz**
- b. 1200-1300 kHz**
- c. 400-500 kHz**
- d. 900-1000 kHz**

Answer: c.

Reference: LAM 2nd edition, pg 930.

Question 68

According to the Guide, light at the cage level for animals that have been shown to be susceptible to phototoxic retinopathy should be between?

- a. 80-90 lux**
- b. 130-325 lux**
- c. 425-650 lux**
- d. 900-1000 lux**

Question 68

According to the Guide, light at the cage level for animals that have been shown to be susceptible to phototoxic retinopathy should be between?

- a. 80-90 lux**
- b. 130-325 lux**
- c. 425-650 lux**
- d. 900-1000 lux**

Answer: b.

Reference: The Guide, pg 35.

Question 69

According to the Guide, cage-ceiling design to enhance brachiating movement should be employed for this species?

- a. Cebidae**
- b. Papio**
- c. Hylobates**
- d. Callitrichidae**

Question 69

According to the Guide, cage-ceiling design to enhance brachiating movement should be employed for this species?

- a. Cebidae**
- b. Papio**
- c. Hylobates**
- d. Callitrichidae**

Answer: c.

Reference: Guide, pg 29.

Question 70

What does the acronym ASHRAE stand for?

- a. Associated Service for Heating, Refrigeration, and Air supply Engineers**
- b. American Society for Heating, Refrigeration, and Air-conditioning Engineers**
- c. American Society for Hallway, Rack, and Automatic washer Engineers**
- d. Automated Systems for Heating, Refrigeration, and Air-conditioning Entities**

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- c. American Society for Hallway, Rack, and Automatic washer Engineers**
- d. Automated Systems for Heating, Refrigeration, and Air-conditioning Entities**

Answer: b.

Question 71

Routine diagnostic work with clinical HIV specimens can be done safely at?

- a. BSL 1**
- b. BSL 2**
- c. BSL 3**
- d. BSL 4**

Question 71

Routine diagnostic work with clinical HIV specimens can be done safely at?

- a. BSL 1**
- b. BSL 2**
- c. BSL 3**
- d. BSL 4**

Answer: b.

Reference: BMBL-section V

Question 72

Each research facility must submit an annual report to the USDA on or before what date?

- a. January 1**
- b. January 15**
- c. March 22**
- d. December 1**

Question 72

Each research facility must submit an annual report to the USDA on or before what date?

- a. January 1**
- b. January 15**
- c. March 22**
- d. December 1**

Answer: d.

Reference: LAM 2nd edition, pg 23.

Question 73

The annual report that is submitted should provide information relevant to the preceding fiscal year covering what time period?

- a. Dec.1-Nov. 30**
- b. July 1-June 30**
- c. Oct. 1-Sept. 30**
- d. Jan.1- Dec 30**

Question 73

The annual report that is submitted should provide information relevant to the preceding fiscal year covering what time period?

- a. Dec.1-Nov. 30**
- b. July 1-June 30**
- c. Oct. 1-Sept. 30**
- d. Jan.1- Dec 30**

Answer: c.

Reference: LAM 2nd edition, pg 23.

Question 74

According to the Guide, how often should small animals, such as rodents, on fluid restriction be weighed?

- a. At least daily**
- b. At least every other day**
- c. At least twice a week**
- d. At least once a week**

Question 74

According to the Guide, how often should small animals, such as rodents, on fluid restriction be weighed?

- a. At least daily**
- b. At least every other day**
- c. At least twice a week**
- d. At least once a week**

Answer: d.

Reference: Guide, pg 12.

Question 75

According to the AWA, the formula for calculating the space requirement for a dog is?

- a. [(The sum of the length of the dog in inches plus 6) times 2] then divided by 144**
- b. [(The sum of the length of the dog in inches plus 4) squared] then divided by 124**
- c. [(The sum of the length of the dog in inches plus 6) squared] then divided by 144**
- d. (The length of the dog times the height of the tallest dog) divided by 12**

Question 75

According to the AWA, the formula for calculating the space requirement for a dog is?

- a. [(The sum of the length of the dog in inches plus 6) times 2] then divided by 144
- b. [(The sum of the length of the dog in inches plus 4) squared] then divided by 124
- c. [(The sum of the length of the dog in inches plus 6) squared] then divided by 144
- d. (The length of the dog times the height of the tallest dog) divided by 12

Answer: c.

Reference: AWA, 3.6, c,1.

Question 76

According to the AWA, to what weight group do male macaques and African species of nonhuman primates belong?

- a. Group 1**
- b. Group 2**
- c. Group 3**
- d. Group 4**
- e. Group 5**

Question 76

According to the AWA, to what weight group do male macaques and African species of nonhuman primates belong?

- a. Group 1**
- b. Group 2**
- c. Group 3**
- d. Group 4**
- e. Group 5**

Answer: d.

Reference: AWA, 3.80, footnote 3 and 4.

Question 77

What is the maximum number of adult, nonconditioned, compatible cats that may be housed in the same primary enclosure?

- a. 4**
- b. 8**
- c. 12**
- d. 16**

Question 77

What is the maximum number of adult, nonconditioned, compatible cats that may be housed in the same primary enclosure?

- a. 4**
- b. 8**
- c. 12**
- d. 16**

Answer: c.

Reference: AWA 3.6, b, 2.

Question 78

The Guide recommends that corridors should be how wide?

- a. 5-7 ft**
- b. 6-8 ft**
- c. 7-9 ft**
- d. 8-10 ft**

Question 78

The Guide recommends that corridors should be how wide?

- a. 5-7 ft**
- b. 6-8 ft**
- c. 7-9 ft**
- d. 8-10 ft**

Answer: b.

Reference: Guide, pg 73.

Question 79

According to the Guide, the appropriate height of a rat cage should be?

- a. As tall as the tallest rat when standing**
- b. 6 inches**
- c. 7 inches**
- d. 8 inches**

Question 79

According to the Guide, the appropriate height of a rat cage should be?

- a. As tall as the tallest rat when standing**
- b. 6 inches**
- c. 7 inches**
- d. 8 inches**

Answer: c.

Reference: Guide, pg 27, table 2.1.

Question 80

What does this symbol represent?

- a. North Carolina zoo system**
- b. North Carolina gang sign**
- c. North Carolina family reunion**
- d. American College of Laboratory Animal Medicine.**



Question 80

What does this symbol represent?

- a. North Carolina zoo system**
- b. North Carolina gang sign**
- c. North Carolina family reunion**
- d. American College of Laboratory Animal Medicine.**

Answer: d.

