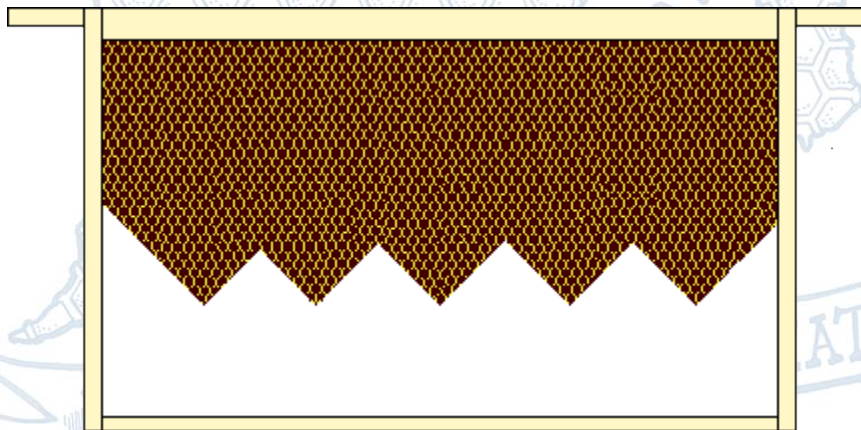


RIBA Master Beekeeper Practice Quiz 07

1. True or False: Both butterflies and honey bees undergo complete metamorphosis.
2. Describe three ways that honey bees are uniquely adapted for pollen collection.
3. Wasps differ from honey bees in the following ways (circle all that apply):
 - a - Wasps do not die after stinging, therefore they can sting multiple times.
 - b - Wasps are carnivores and only eat other insects and/or their larvae.
 - c - Wasps have only two wings, whereas honey bees have four.
 - d - Wasps do not provide pollination of flowers.
 - e - Wasps do not overwinter as complete colonies; only mated females overwinter..
4. During an inspection you observe many bees ovipositing. What condition are you observing?
 - a - Washboarding
 - b - Swarm preparation
 - c - Laying workers
 - d - Bearding
 - e - Robbing
5. Which of the following bacterial infections affect honey bee brood? (circle all that apply)
 - a - European Foulbrood
 - b - Chalkbrood
 - c - Sacbrood
 - d - Nosema
 - e - None of the above
6. Which of the following bacterial infections affect adult honey bees? (circle all that apply)
 - a - American Foulbrood
 - b - Deformed Wing Virus
 - c - Nosema
 - d - Parasitic Mite Syndrome
 - e - None of the above
7. From the list below, what is the best choice of larva to use in queen rearing by grafting?
 - a - 24 hour old larva
 - b - 48 hour old larva
 - c - 72 hours old larva
 - d - 24, 48, or 72 hours old are equally acceptable
 - e - An egg is superior to any age larva in grafting
8. UMF is a method for:
 - a - Testing imported honey for possible adulteration
 - b - Rating the medicinal value of manuka honey
 - c - Controlling crystal size when producing creamed honey
 - d - Treating infected combs to destroy American Foulbrood spores.
 - e - Detecting pesticide residue in beeswax.
9. The spermatheca is a specialized organ found in _____. Its purpose is _____.
10. Describe the (potential) pros and cons of treating with oxalic acid vaporization in June.

11. _____ is credited with developing the _____ line of bees in response to “Isle of Wight Disease” in the early 20th century.
12. The amount of a pesticide needed to kill half of a test population during a specified time period is known as the _____.
13. The number of honey bee species native to the United States is _____.
14. True or False: Fume boards soaked with butyric acid are an approved method for discouraging wax moths in stored woodenware.
15. The “buzz run” is a signal that precedes an imminent _____.
16. The three major parts of the antenna are _____, _____, and _____.
17. Name two major anatomical clues that can be used to differentiate between small hive beetle larvae and wax moth larvae.
18. List all current miticides approved in the US while honey supers are in place.
19. The evolutionary purpose of nectar is _____.
20. It is estimated that for every 10 lb of honey a colony consumes over the winter, about _____ of water is produced.
21. A high level of _____ during the third day of larval development induces differentiation into a queen; a low level results in development of a worker.
22. A fertilized egg that is homozygous at the complementary sex determining (csd) gene, will develop into _____.
23. The enzyme _____ helps transform _____ in nectar into the simple sugars _____ and _____. This enzyme is produced in the _____.
24. What are the chelicerae of adult male Varroa mites used for?
25. The picture below shows a frame notched in the characteristic style of the the _____ method of queen rearing.



ANSWERS

1. True
2. Generate an electric charge in flight that causes pollen grains to adhere through static electricity; plumose hairs capture pollen grains like a dust mop; rear legs have several anatomical adaptations for pollen collection: corbicula, pollen press, pollen rake, etc.
3. A, E
4. C; ovipositing refers to egg laying.
5. A
6. E
7. A
8. B
9. Queens; to store all the sperm a queen will ever have in her life
10. Pros: good efficacy if broodless (such as a captured swarm); very low cost per dose; for those who avoid synthetics, OA is an organic option
Cons: hive is likely to contain brood in June, OAV has limited efficacy when brood is present; risk of inhalation by applicator; OAV is not approved for use with honey supers in place, as they often are in June
11. Brother Adam; Buckfast
12. LD50
13. There are no honey bees native to the United States.
14. False; fume boards and butyric acid are used to drive bees from honey supers when harvesting honey.
15. Swarm departure
16. Scape, pedicel, flagellum
17. SHB larvae have a series of spines on the dorsal side; SHB larvae have only 6 legs on the thoracic segment, wax moth have six legs on the thoracic segment and many pairs of prolegs on the abdominal segments
18. Formic Pro, Mite Away Quick Strips, Hopguard
19. To attract and reward pollinators
20. One gallon
21. Juvenile hormone
22. Diploid drone
23. The enzyme invertase helps transform sucrose in nectar into the simple sugars fructose and glucose. This enzyme is produced in the hypopharyngeal glands.
24. Chelicerae are used to transfer sperm to the female's genital orifice. Male mites do not feed, they only live long enough to mate with the females.
25. Miller