

Chapter – 12

Trends in Economic Zoology

Textbook Evaluation Solved

Question 1.

Which one of the following is not related to vermiculture?

- (i) Maintains soil fertility
- (ii) Breakdown of inorganic matter
- (iii) Gives porosity, aeration and moisture holding capacity
- (iv) Degradation of non-biodegradable solid waste
- (a) (i) and (ii) is correct
- (b) (iii) and (iv) is correct
- (c) (ii) and (iv) is not correct
- (d) (i) and (iii) is not correct

Answer:

- (c) (ii) and (iv) is not correct

Question 2.

Which one of the following is not an endemic species of earthworm?

- (a) Perionyx
- (b) Lampito
- (c) Eudrillus
- (d) Octochaetona

Answer:

- (c) Eudrillus

Question 3.

Match the following

- (1) Bombyx mori – a) Champa – (1) Muga
 - (2) Antheraea assamensis – b) Mulberry – (II) Eri
 - (3) Antheraea mylitta – c) Arjun – (III) Tassar
 - (4) Attacus ricini – d) Castor – (IV) Mulberry
- Select the correct one.
- (a) 1 – b – IV
 - (b) 2 – a – I
 - (c) 3 – c – III

(d) 4 – d – II

Answer:

(c) 3 – c – III

Question 4.

Silk is obtained from

- (a) Laccifer lacca
- (b) Nosema bombycis
- (c) Attacus ricini
- (d) Attacus mylitta

Answer:

(c) Attacus ricini

Question 5.

Assertion: Nuptial flight is a unique flight taken by the queen bee followed by several drones.

Reason: The queen bee produces a chemical substance called pheromone. The drones in that area are attracted to the pheromone and then mating takes place.

- (a) Assertion and reason is correct but not related
- (b) Assertion and reason is incorrect but related
- (c) Assertion and reason is correct but related
- (d) Assertion and reason is incorrect but not related

Answer:

(c) Assertion and reason is correct but related

Question 6.

Rearing of honey bee is called

- (a) Sericulture
- (b) Lac culture
- (c) Vermiculture
- (d) Apiculture

Answer:

(d) Apiculture

Question 7.

Which of the statement regarding Lac insect is TRUE?

- (a) A microscopic, resinous crawling scale insect
- (b) Inserts its proboscis into plant tissue suck juices and grows
- (c) Secretes lac from the hind end of body
- (d) The male lac insect is responsible for large scale production of lac

Answer:

- (c) Secretes lac from the hind end of body

Question 8.

Aquaponics is a technique which is

- (a) A combination of aquaculture and fish culture
- (b) A combination of aquaculture and hydroponics
- (c) A combination of vermiculture and hydroponics
- (d) A combination of aquaculture and prawn culture

Answer:

- (b) A combination of aquaculture and hydroponics

Question 9.

Prawn belongs to the class

- (a) Crustacea
- (b) Annelida
- (c) Coelenterata
- (d) Echinodermata

Answer:

- (a) Crustacea

Question 10.

Pearl oyster belongs to the Class

- (a) Gastropoda
- (b) Cephalopoda
- (c) Scaphapoda
- (d) Pelecypoda

Answer:

(d) Pelecypoda

Question 11.

Inland fisheries are

- (a) Deep sea fishing
- (b) Capturing fishes from sea coast
- (c) Raising and capturing fishes in fresh water
- (d) Oil extraction from fish

Answer:

(c) Raising and capturing fishes in fresh water

Question 12.

Induced breeding technique is used in

- (a) Marine fishery
- (b) Capture fishery
- (c) Culture fishery
- (d) Inland fishery

Answer:

(b) Capture fishery

Question 13.

Isinglass is used in

- (a) Preparation
- (b) Clearing of wines
- (c) Distillation of wines
- (d) Preservation of wines

Answer:

(b) Clearing of wines

Question 14.

Animal husbandry is the science of rearing, feeding and caring, breeding and disease control of animals. It ensures supply of proper nutrition to our growing population through activities like increased production and improvement of animal products like milk, eggs, meat, honey, etc.

- (a) Poultry production depends upon the photoperiod. Discuss.
(b) Polyculture of fishes is of great importance.

Answer:

(a) Light is an important aspect in the poultry production. Light stimulates the secretion of FSH and LH. The wavelength between 400 and 700 nm is required. The decrease in the photoperiod will affect the egg production.

(b) A few selected fishes belonging to different species are stocked together in proper proportion in a pond. This mixed farming is termed as composite fish farming or polyculture. It is of great importance because

1. All available resources are fully utilized
2. Compatible species do not harm each other
3. There is no competition among different species

Question 15.

Assertion: The best quality of pearl is known as lingha pearl and obtained from marine oysters.

Reason: Nacre is secreted continuously by the epithelial layer of the mantle and deposited around the foreign particle.

- (a) Assertion is true, Reason is false
(b) Assertion and Reason are false
(c) Assertion is false But Reason is true
(d) Assertion and Reason are true

Answer:

- (c) Assertion is false But Reason is true

Question 16.

Choose the correctly matched pair.

- (a) Egg layers – Brahma
(b) Broiler types – Leghorn
(c) Dual purpose – White Plymouth rock
(d) Ornamental breeds – Silkie

Answer:

- (d) Ornamental breeds – Silkie

Question 17.

Write the advantages of vermicomposting?

Answer:

- Vermicompost is rich in essential plant nutrients.
- It improves soil structure texture aeration and water holding capacity and prevents soil erosion.
- Vermicompost is rich in nutrients.
- Used as manure for terrace gardening.
- It enhances seed germination and ensures good plant growth.

Question 18.

Name the three castes in a honey bee colony?

Answer:

The Queen, Drones and Workers.

Question 19.

Name the following?

1. The largest bee in the colony:
2. The kind of flight which the new virgin queen takes along with the drones out of the hive:

Answer:

1. The queen.
2. Nuptial flight.

Question 20.

What are the main duties of a worker bee?

Answer:

- Secretion of royal jelly
- Prepares bee – bread to feed the larvae
- Feeds the queen
- Takes care of the queen and drones.

- Secretes bee wax
- Builds combs
- Cleans the combs.
- Guards the beehive
- Searches and gathers the pollen nectar and propolis and water.



Question 21.

What happens to the drones after mating flight?

Answer:

They die after copulation.

Question 22.

Give the economic importance of Silkworm?

Answer:

- Silk fibres are utilized in preparing silk clothes.
- Silk fibres are combined with natural or synthetic fibres to produce teri – silk, cot – silk.
- Silk is used in industries and for military purposes.
- It is used in the manufacturing of fishing fibres, parachutes, cartridge bags insulation coils for telephone wireless receivers
- It is used to manufacture tyres of racing cars, filter fibres, in medical dressing and as suture materials.

Question 23.

What are the Nutritive values of fishes?

Answer:

Economic importance of fish:-

Fishes form a rich source of protein food and provide a good staple food to tide over the nutritional needs of man. Fish species such as sardines, mackerel, tuna, herrings have high amino acids concentration particularly histidine which is responsible for the meaty flavor of the flesh. It is rich in fat such as omega 3 fatty acids. Minerals such as calcium, magnesium, phosphorus, potassium, iron, manganese, iodine and copper.

Some of the fish by-products are: Fish oil is the most important fish by-product. It is derived from fish liver and from the fish body.

Fish liver oil is derived from the liver which is rich in vitamin A and D, whereas fish body oil has high content of iodine, not suitable for human consumption, but is used in the manufacture of laundry soaps, paints and cosmetics. Fish meal is prepared from fish waste after extracting oil from the fish.

The dried wastes are used to prepare food for pig, poultry and cattle. The wastes obtained during the preparation of fish meal are widely used as manure.

Isinglass is a high-grade collagen produced from dried air bladder or swim bladder of certain fishes viz. catfish and carps. The processed bladder which is dissolved in hot water forms a gelatin having adhesive property. It is primarily used for clarification of wine, beer and vinegar.

Question 24.

Give the economic importance of prawn fishery?

Answer:

- Prawn are widely cultured
- They are highly palatable.
- They are rich in glycogen protein with low-fat content.
- Commercially they provide good profit.

Question 25.

Give the economic importance of lac insect?

Answer:

Economic importance of Lac:-

1. Lac is largely used as a sealing wax and adhesive for optical instruments.
2. It is used in electric industry, as it is a good insulator.
3. It is used in preparations of shoe and leather polishes and as a protective coating of wood.
4. It is used in laminating paper board, photographs, engraved materials and plastic moulded articles.
5. Used as a filling material for gold ornaments.

Question 26.

List any three common uses of shellac?

Answer:

1. It is used in the preparation of shoes.
2. Leather polishes.
3. Used as a protective coating of wood.

Question 27.

Name any two trees on which lac insect grows?

Answer:

Acacia catechu, Acacia nilotica.

Question 28.

What is seed lac?

Answer:

Lac cut from the host plant is called 'stick lac'. The lac present on the twig is scraped and collected. After grinding, the unnecessary materials like dusts and fine particles are removed. The resultant lac is called 'seed lac'.

Question 29.

Define cross breeding?

Answer:

Breeding between a superior male of one breed with a superior female of another breed. The cross-breed progeny have superior traits.

Question 30.

What are the advantages of artificial insemination?

Answer:

Advantages of artificial insemination:

1. It increases the rate of conception
2. It avoids genital diseases
3. Semen can be collected from injured bulls which have desirable traits
4. Superior animals located apart can be bred successfully

Question 31.

Discuss the various techniques adopted in cattle breeding?

Answer:

- Multiple ovulation embryo transfer technology is a method of propagation of animals with desirable traits.
- This method is applied when the success rate of crossing is low even after insemination.
- Follicle-stimulating hormone is administered to cows for inducing follicular maturation and superovulation.
- 6-8 eggs can be produced by this technology.
- The eggs are taken from a genetic mother and fertilized artificially.
- The embryo at the 8 – 32 celled stage is transferred to a surrogate mother.
- For another round of ovulation, the same genetic mother is utilized.

- It is used in high milk-yielding females and high-quality meat production.

Question 32.

Mention the advantages of MOET?

Answer:

Multiple Ovulation Embryo Transfer Technology (MOET) is a method of propagation of animals with desirable traits. This technology is used to produce high milk yielding females and high-quality meat yielding bulls in a short time.

Question 33.

Write the peculiar characters of duck?

Answer:

The peculiarity of Ducks:

- The body is fully covered with oily feathers.
- They have a layer of fat under their skin which prevents it from getting wet.
- They lay eggs at night or in the morning.
- The ducks feed on rice bran kitchen wastes waste fish and snails.