

[Time: 3 Hours]

[Marks: 100]

- N.B:** 1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Draw neat and labelled diagrams wherever necessary.

1. (A) Fill in the blanks by choosing the correct answer :

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- (i) ----- is not a fish feed for aquarium.
(Tubifex , Artemia , mussels)
- (ii) The insect which parasitize primary parasite of the plant pest is called as-----
(Vector , Carrier , Parasitoid)
- (iii) Crop rotation and ploughing is ----- type of pest control method.
(Physical , Chemical, Cultural)
- (iv) Matilda Viper is endemic to ----- .
(Tanzania , Japan , India)
- (v) State animal of Maharashtra is ----- .
(Indian giant squirrel , Rabbit, Snub nosed monkey)

1. (B) Match the column I and column II and rewrite.

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Column I

Column II

- | | |
|-------------------------------|-------------------------------|
| (i) Origin of goldfish | (a) Non-insect pest |
| (ii) Grasshopper | (b) Komodo dragon |
| (iii) Snail | (c) Forestry pest |
| (iv) Parthenogenesis | (d) Only four feather in tail |
| (v) Spatule tail humming bird | (e) China |

1. (C) State whether true or false :

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- (i) Silver carp is endemic fish species.
- (ii) Fumigants are used to control stored grain pest.
- (iii) Knapsack sprayer is used for fumigation of calcium cyanide.
- (iv) When threatened pebble toad fold its body like ball.
- (v) Octopus represents the most dedicated mother in the world.

1. (D) Answer in one sentence :

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- (i) Define endemic species
- (ii) What is IPM ?
- (iii) Define parasite
- (iv) Which shrimp has fastest punch ?
- (v) What is the speciality of lesser flamingo ?

2. (A) Answer **any one** from the following questions :

10

- (i) Describe biology of molly.
- (ii) Write in detail about formulated fish feed.

2. (B) Answer **any two** from the following questions :

10

- (i) Explain goldfish as an aquarium fish.
- (ii) Common characters and sexual dimorphism of butterfly fish.
- (iii) Fish handling for aquarium fish.
- (iv) Biology of Anemone fish.

3. (A) Answer **any one** from the following questions :

10

- (i) Explain agricultural pest with suitable example.
- (ii) Explain life cycle, nature of damage and control measures of jowar stem borer.

3. (B) Answer **any two** from the following questions :

10

- (i) Chemical control of pest.
- (ii) Crab as a pest.
- (iii) Cynogas pump as a plant protection appliance.
- (iv) Life cycle of rice weevil.

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4. (A) Answer **any one** from the following questions : **10**
- (i) Give a brief account on natural history of Malabar giant squirrel.
 - (ii) Stabbing shark as incredible animal.
4. (B) Answer **any two** from the following questions : **10**
- (i) Amazing aspects of Kingfisher.
 - (ii) Amazing characters of Fan-throated Lizzard.
 - (iii) Write in brief about Pebble toad.
 - (iv) Fastest punch of Mantis shrimp.

5. Answer **any four** from the following questions : **20**
- (i) Exotic species of fish.
 - (ii) Scope of maintenace of an aquarium.
 - (iii) Mechanical control of pests.
 - (iv) Life cycle of aphids.
 - (v) Crime fighting in Gecko.
 - (vi) Joker crab as incredible animal.
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