**Freshwater Fishes:**

1. a) Fish have complex pattern of body color……….. (Go to #2)

b) Fish have simple pattern of body color………….. (*Lepomis auritus*)

1. a) Fish have upper jaw teeth……………………………… (Go to #3)

b) Fish does not have upper jaw teeth………………. (*Pomoxis nigromaculatus*)

1. a) Fish has 13 gill rakers…………………………………….. (*Lepomis gulosus*)

b) Fish has 8 gill rakers……………………………………….. (Go to #4)

1. a) Fish has a terminal mouth position………………… (Go to #5)

b) Fish has a superior mouth position………………… (*Micropterus salmoides*)

1. a) Fish has 9 dorsal fin spines…………………………….. (*Lepomis macrochirus*)

b) Fish has 10 dorsal fin spines…………………………… (*Lepomis microluphus*)

**Marine Fishes:**

1. a) Fish has more than 50 soft dorsal rays……………... (Go to #2)

b) Fish has less than 50 soft dorsal rays………………… (Go to #3)

1. a) Fish has 30 gill rakers on first arch…………………….. (*Trinectes maculatus*)

b) Fish has 40 gill rakers on first arch…………………….. (*Symphurus plagiusa*)

1. a) Fish has 1 branchiostegal ray…………………………….. (*Menidia menidia*)

b) Fish has more than 1 branchiostegal ray……………. (Go to #4)

1. a) Fish has no visible scales……………………………………. (Go to #5)

b) Fish has visible scales………………………………………… (Go to #7)

1. a) Fish has no upper teeth…………………………………….. (Go to #6)

b) Fish has upper teeth………………………………………….. (*Anchoa mitchilli*)

1. a) Fish has a convex snout profile…………………………... (Peprilus triacanthus)

b) Fish has a concave snout profile……………………….. (*Selene vomer*)

1. a) Fish has dark shade of background color………….. (*Synodus foetens*)

b) Fish has light shades of background color………… (Go to #8)

1. a) Fish has a plain pattern of body color………………. (*Menticirrhus americanus*)

b) Fish has a complex pattern of body color…………. (Go to #9)

1. a) Fish has a superior mouth position…………………... (*Cynoscion regalis*)

b) Fish has a terminal mouth position…………………… (Go to #10)

1. a) fish has 1 dorsal fin spine………………………………….. (*Dorosoma petenense*)

b) Fish has more than 1 dorsal fin spine………………… (Go to #11)

1. a) Fish does not have anal spines………………………….. (*Cynoscion nebulosus*)

b) Fish has anal spines………………………………………….. (Go to #12)

1. a) Fish has 9 soft anal rays…………………………………….. (*Leiostomus xanthurus*)

b) Fish has 18 soft anal rays…………………………………… (*Chaetodipterus faber*)