Answer Sheet Frankenmuth Invitational 2013- Water Quality Division C

ɔer: _____ Score: _____

chool Name: _____ Key

articipants: _____

art A:

hort Answer (12 pts)

a. (1pts) X

. (4pts) more erosion/higher Temps/ less food

. (1pt) higher

. (1pt) Cullen River

(1pt) fallen leaves from trees

(1pt) insects

(3pts) 1. ~~Feed~~ provide food

2. shade/cooler temps

3. ↑ dO

4. ↓ pollution

5. ↓ erosion

Multiple Choice (15pts)

5. A
6. D
7. A
8. A
9. D
10. B
11. C
12. C
13. A
14. D
15. B
16. D
17. C
18. B
19. C

True or False (22 pts)

20. T
21. F
22. T
23. F
24. T
25. T
26. F
27. T
28. T
29. F
30. F

Matching (11pts)

31. A
32. H
33. L
34. G
35. I
36. F
37. A
38. J
39. M
40. K
41. E

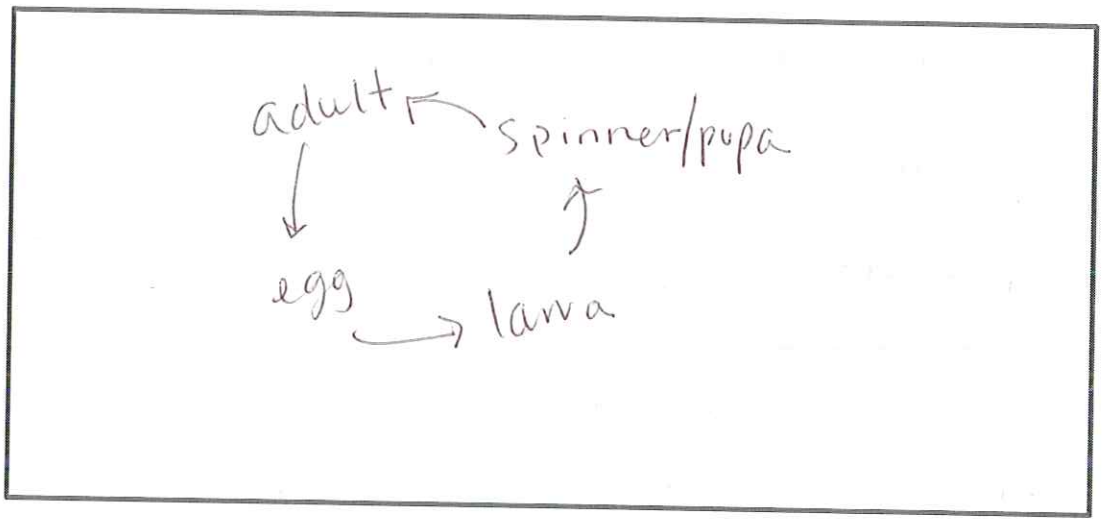
A total points:____/60

Part B:

46 pts (1 pt name & 1 pt class)

Common Name	Class
1) Mayfly	1
2) Air breathing snail	4
3) Dragonfly	2
4) Deerfly	4
5) waterscorpion	1
6) Blood midge	4
7) Dobsonfly	1
8) Spiny waterflea	invasive
9) Tubifex	4
10) Scud	2
11) Water Hyacinth	invasive
12) Flatworm	3
13) Blackfly	3
14) Cranefly	2
15) Water penny	1
16) Water boatmen	5
17) Predacious diving beetle	5
18) Purple loosestrife	invasive
19) Asian tiger mosquito	invasive
20) watermites	3
21) Riffle beetle	1
22) whirligig beetle	5
23) Giant water bug	5

24. 8 pts



Tiebreaker #1

25. 8pts

infiltrate riversystems & choke out. Not occupy the great lakes

26. 8 pts (1 pt each)

a.	algae/diatoms/mosses/other macro invertebrate larvae
b.	Organic litter
c.	Organic litter/algae
d.	larva → organic litter/algae
e.	carnivores → flesh/fluids of animals
f.	predators → aquatic larvae & bloodworms
g.	filter feeders → plankton
h.	predator → zooplankton (daphnia/small crustaceans)

Part B total points: _____/70

Part C:

Testing your salinometer can be done at any point during this rotation. It is your responsibility to keep track of time and to test your device.

Salinometer reading:_____% Salt (10 pts)

1. (6pts) Tiebreaker #2

1. Collect 2 samples (no bubbles)
2. perform dO test record results
3. place 1 sample in the dark for 5 days
4. perform dO test on 2nd sample, record results
5. Subtract sample day1 - day5

2a. (4 pts)

i. Turbulence (natural rocks / man-made boats) less
2. ~~more~~ less shade
3. Hotter temps

2b. (2pts)

- So temps don't change
- can mix or stir up sample

3. (10pts)

a.	dissolved oxygen
b.	fecal coliform
c.	phosphates & nitrates
d.	pH
e.	turbidity
f.	total solids
g.	BOD
h.	salinity
i.	temperature

4a. (1pt) Scarey Creek

4b. (4pts) Shade = cooler
rapids

4c. (3pts) Scarey Creek - rocks for habitat

5a. (2pts) C & D

5b. (4pts)
- Fertilizer run-off
- poop
- soaps

5c. (2pts)
- Diluted
- used up

6a. (1pt) medium / fair

6b. (3pts) Small # of class 1/2 & larger # of classes 3/4/5

7a. (2pts) Sunfish & bullhead

7b. (2pts) lower metabolism

7c. (1pts) Cold

7d. (4pts) do is amount of oxygen in the water & % sat. incorporates the amount it could hold based on temp.

8a. (2pts) all species are unable to survive except mosquito larva

8b. (2pts) General overall health assessment, quick, easy, Cheap.

9. (5pts) Tiebreaker #3
too cloudy & photosynthetic organisms cannot function, food web can collapse

Total Points Part C:____/70