Disease Detective Mentor Invitational 2017 Divisions B/C Record answers on this sheet

ANSWER KEY

Team \_\_\_\_\_\_\_

All answers are worth 1 point. Tie breaker is the most correct on Disease fill in grid section. Tie break 2 most correct page 1 of the exam. Tie 3 Question 21, Tie 4 Question 26

Question 1-12

You are a physician evaluating Matilda, 16 year- old, who is complaining of nausea, vomiting, and diarrhea of thirty six hour duration which began Jan 3, 2017. In order to narrow down the possibilities of what organism could be causing the illness; you need to ask the patient these basic 12 questions (clues). What do you ask, be specific and don’t ask the same question twice… This patient is a good historian and not trying to trick you. complete sentences are NOT NECESSARY ( MMWR Foodborne Illness 2004)

1.Have you consumed raw or undercooked foods?

2.Have you consumed any unpasteurized foods or juices?

3.Consumed any home canned products?

4.Any fresh produce…domestic or imported?

5.Any soft cheeses?

6.Any family ill or friends ill?

7.Live on or visit a farm recently?

8.Any pets at home?

9.Any occupational exposures?

10.Travel either foreign or domestic ( outside your usual neighborhoods)

11.Camping to a mountainous region with UNTREATED water

12.Any group picnics/celebrations/parties etc

You are the local Department of Health Food Inspector and have been notified that, Brenda’s ALL You Can Eat American Buffet, may be the source of Campylobacter gastroenteritis.

13. What temperature is necessary to decrease the risk of bacterial growth in the cold food area? \_less than 40 degree F

14. What temperature is necessary to decrease the risk of bacterial growth in the hot food area?

\_greater than 140 degrees F

15. You notice that the food worker continuously refills the food items into the serving line as the diners deplete them. Is this the safest method? Yes, or No and explain very briefly why or why not. \_\_No The food temperature may not be consistently greater than 140 from the time it leaves the kitchen, the edges of the pan may not be 140. Old food pan should be removed and replaced with the new recently cooked item. Team \_\_\_\_\_\_\_

16. Some of the diners have difficulty serving themselves, elderly, children, and the uncoordinated….in regards to the serving utensils what is the main problem? \_Serving utensil may go from one item to the next creating contamination The answer is not dropping utensils on the floor.

17. What are upper intestinal symptoms? nausea ,vomiting, upper abdominal pain (above the navel)

18. What are lower intestinal symptoms ? DIARRHEA , Lower abdominal pain ( below the navel)

19 Where/ What is the most likely source of Campylobacter? CHICKEN or TURKEY DISHES

20. You notice that a food worker seems to be using the restroom more frequently than you would expect and appears ill. He probably has Winter Fever. What illness / organism is that? NOROVIRIS. Should this person be working in public place? NO Contagious

21. Tie Break 3 A young mother with a ten-month old baby pours honey on a spoon and gives it to the child. What illness is she putting her child at risk for? \_Clostrridium Botulinum Infantile. Twenty days later the baby is lethargic, has a poor gag reflex, and poor sucking reflex. What would you treat the child with? Botulinum Immunoglobulin not antitoxin

22. There have been multiple food related outbreaks investigated by the CDC in 2016. Name the causative agent for each food product.

Shell eggs SALMONELLA Alfalfa Sprouts SALMONELLA, E COLI O157

Beef products E COLI O157:H7 Flour E Coli O126

Frozen Strawberries HEPATITIS A Frozen Vegetables LISTERIA

Frozen Scallops HEPATITIS A Raw Milk LISTERIA

Pistachios SALMONELLA Packaged Salads LISTERIA

Organic Shake and Meal Products SALMONELLA

In regards to reports published in Medical Journals

23. What three epidemiologic terms are used to describe the frequency of an event, INCIDENCE, PREVELANCE, PERSON-YEARS

24. What three epidemiologic terms are used to describe the MAGNITUDE of an event? RELATIVE RISK, ODDS RATIO, ABSOLUTE RISK, can give also NUMBER NEEDED TO TREAT

25. What 2 epidemiologic terms are used to describe the quality of measurements? RELIABILITY, VALIDITY

26. What epidemiologic terms are measures of diagnostic Test performance? SENSITIVITY, SPECIFICITY, PREDICTIVE VALUES, LIKELIHOOD RATIO, ACCURACY