1. Fill in the table using choices from the appropriate lists below. For the purpose of this question assume the patient is symptomatic for the disease. Some choices maybe used more than once and some choices may not be used at all. Select the BEST answer for each organism. (see example) - [Note: give ONE answer per box. If more than one answer is given, credit will be assigned based on the first answer.] 16 points

Organism	**Type**	**Diagnosis**	**Treatment**	**Disinfection (cage/table)**
XXXXXXXXXX	*Double-stranded DNA virus*	*PCR*	*Supportive care*	*Sodium hypochlorite*
XXXXXXXXXXX				
XXXXXXXXXXXX				
XXXXXXXXXXXX				
XXXXXXXXXXXXX				

Type:

Cell wall deficient bacteria
Double-stranded DNA virus
Double-stranded RNA virus
Gram-negative coccobacillus
Obligate intracellular bacteria
Single-stranded DNA virus
Single stranded RNA virus

Diagnosis:

Culture
ELISA
Polymerase chain reaction
Reverse transcriptase-polymerase chain reaction
Serology
Virus isolation

Treatment:

Drug A
Drug B
Drug C
Drug D
Supportive care

Disinfectant:

Chlorhexidine
Absolute (100%) alcohol
Phenol
Sodium hypochlorite
Quaternary ammonium

2. List 3 epidemiological or clinical disease findings that are different in patients with xxxxxxxx disease. 9 points

3. What is the proposed mechanism of action of X-DRUG for treatment of XXX disease? 2 points

4. Complete the following table with one proposed mechanism of action of each of the listed drugs used in the treatment X disease. Additionally state whether the drug has shown documented efficacy *in vivo* (defined as: randomized, placebo-controlled study(ies) that showed improvement in clinical signs OR improved survival time) in the treatment of X-disease. (See example) [Only one answer is required for full credit. If more than one answer is given, credit will be assigned for the first answer] 8 points

Drug	**Mechanism of action**	**Efficacy *in vivo* (Yes/No)**
XXXXXXXXXX	*Inhibition of reverse transcriptase*	*No*
XXXXXXXXXXXXX		
XXXXXXXXXXXXX		
XXXXXXXXXXXXX		

XXXXXXXXXX		

5. Describe, in the space allotted below, 2 microscopic characteristics (each) of *Organism A* and *Organism B* that would allow each to be differentiated from the other when examined microscopically. 8 points

Organism A:

1.

2.

Organism B:

1.

2.

6. For each infectious agent, what is the most common form shed in X fluid? 4 points

Organism A*:*

Organism B:

7. Complete the following table. Assume for the purposes of this question that the patient is exhibiting clinical signs. 28 points

Organism	**Predominant type of diarrhea (large vs small bowel)**	**Diagnostic tests (2 per organism)**	**Treatment**
XXXXXXXXXXXXX	Large	1. Cytology 2. Culture	X drug
XXXXXXXXXXXXXX			
XXXXXXXXXXXXXXXX			
XXXXXXXXXXXXXX			

8. Match the organisms on the right with appropriate statements regarding natural infection on the right. Some statements may have more than one correct answer and all must be given for full credit. See example. 12 points

Example:		
Factor X is a risk factor	**A, C**	A. *Organism A*
Factor Y is a risk factor	A,B,C	B. *Organism B*
Factor Z is a risk factor	C	C. *Organism C*
Rarely found during acute disease	A,B	
Mono-infection rarely associated with clinical signs	A,B	

9. What is the vector of *Organism A*? 3 points

10. What is the reservoir host of *Organism A*? 2 points

11. List 4 clinical signs of infection with *Organism A*. 8 points