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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Microbiology Unit 3

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| 7  O |  |  |  | C |  |  |  |  |  |  | R |  | D |  |  |  | 8  E |  |  |  | R |  |  |  |  |  | N |  |  |
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| Z |  | 13  A |  | E |  | 14  A | N | A | M | N | E | S | T | I | C | R | E | S | P | O | N | S | E |  |  |  | N |  | 15  I |
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| T |  | T |  |  |  |  | 16  H | E | R | D | I | M | M | U | N | I | T | Y |  |  | E |  | T |  | 17  V |  | I |  | F |
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| O |  | B |  | E |  |  |  | 19  P | R | O | P | H | Y | L | A | X | I | S |  |  |  |  | O |  | N |  | I |  | C |
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| 24  I | N | T | E | R | F | E | R | O | N |  | 25  V | A | C | C | I | N | A | T | I | O | N |  | I |  | M |  | R |  | O |
|  |  | I |  | Y |  | U |  | O |  |  |  |  |  |  | N |  |  |  | M |  | T |  | L |  | Y |  | Y |  | U |
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|  |  |  |  | E |  | O |  | O |  | 26  C | O | M | P | L | E | M | E | N | T |  | G |  |  |  | I |  | O |  | D |
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|  |  |  |  | L |  | Y |  | I |  |  | 27  S | Y | M | P | T | O | M |  | O |  | N |  |  |  |  |  | C |  | S |
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|  |  |  |  |  |  | E |  |  | 29  C | E | P | H | A | L | O | S | P | O | R | I | N |  | N |  |  |  | N |  |  |
|  |  |  |  | 30  T |  |  |  |  |  |  |  |  |  |  | N |  |  |  | I |  |  |  | T |  |  |  | T |  |  |
|  |  | 31  B | R | O | A | D | S | P | E | C | T | R | U | M |  |  |  | 32  I | M | M | U | N | I | T | Y |  | R |  |  |
|  |  |  |  | X |  |  |  |  |  |  |  |  |  |  | 33  T |  |  |  |  |  |  |  | B |  |  |  | A |  |  |
|  | 34  C | Y | T | O | K | I | N | E |  |  | 35  N | O | S | C | O | M | I | A | L |  | 36  P | R | O | B | I | O | T | I | C |
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| **Across**  **4.** Systemic infection associated with microorganisms multiplying in circulating blood.  **9.** A natural, nonspecific response to tissue injury that protects the host from further damage. It stimulates immune reactivity and blocks the spread of an infectious agent.  **10.** A large group of naturally occurring and synthetic antibiotic produced by Penicillium mold and active against the cell wall of bacteria. Most important natural forms used to treat gram-positve cocci, some gram-negative bacteria.  **14.** In immunology, an augmented response or memory related to a prior stimulation of the immune system by antigen. It boosts the levels of immune substances.  **16.** The status of collective acquired immunity in a population that reduces the likelihood that nonimmune individuals will contract and spread infection. One aim of vaccination is to induce herd immunity.  **19.** Use of a drug to prevent imminent infection of a person at risk.  **24.** Natural human chemical that inhibits viral replication; used therapeutically to combat viral infections and cancer.  **25.** Exposes a person to a specially prepared microbial stimulus, in a form that doe-s not cause the disease.  **26.** In immunology, serum protein components that act in a definite sequence when set in motion either by an antigen-antibody complex or by factors of the alternative (properdin) pathway.  **27.** The subjective evidence of infection and disease as perceived by the patient.  **29.** A group of broad-spectrum antibiotics isolated from the fungus Cephalosporium.  **31.** Denotes drugs that have an effect on a wide variety of microorganisms.  **32.** An acquired resistance to an infectious agent due to prior contact with that agent.  **34.** A chemical substance produced by white blood cells and tissue cells that regulates development, inflammation, and immunity.  **35.** An infection not present upon admission to a hospital but incurred while being treated there.  **36.** Preparations of live microbes used as a preventive or therapeutic measure to displace or compete with potential pathogens.  **37.** To reduce the virulence of a pathogenic bacterium or virus by passing it through a nonnative host or by long-term subculture. | **Down**  **1.** In epidemiology, the number of new cases of a disease occurring during a period.  **2.** In infection, the relative capacity of a pathogen to invade and harm host cells.  **3.** The smallest concentration of drug needed to visibly control microbial growth.  **5.** The accumulation of excess fluid in cells, tissues, or serous cavities. Also called swelling.  **6.** The total number of cases of a disease in a certain area and time period.  **7.** The process of stimulating phagocytosis by affixing molecules to the surfaces of foreign cells or particles.  **8.** The precise molecular group of an antigen that defines its specificity and triggers the immune response.  **11.** An infection that compounds a preexisting one.  **12.** A mature granulocyte present in peripheral circulation, exhibiting a multilobular nucleus and numerous cytoplasmic grannules that retain a neutral stain. Active phagocytic cell in bacterial infection.  **13.**  A chemical substance from one microorganism that can inhibit or kill another microbe even in minute amounts.  **15.** Infection will proceed only if a minimum number is present.  **17.** Antibiotic that targets the bacterial cell wall; used often in antibiotic resistant infections. Narrow spectrum of action; used to treat staphylococcal infections in cases of penicillin and methicillin resistance or in patients with an allergy to penicillin.  **18.** The long-lived progeny of a sensitized lymphocyte that remains in circulation and is genetically programmed to react rapidly with its antigen.  **20.** Inhibits the enzymatic step immediately preceding the step inhibited by sulfonamides; trimethoprim often given in conjunction with sulfamethoxazole because of this synergistic effect; used to treat Pneumocystis jiroveci in AIDS patients.  **21.** White blood cells. The primary infection-fighting blood cells.  **22.** An infectious disease indigenous to animals that humans can acquire through direct or indirect contact with infected animals.  **23.** Any cell, particle, or chemical that induces a specific immune response by B cells or T cells and can stimulate resistance to an infection or a toxin.  **28.** A large protein molecule evoked in response to an antigen that interacts specifically with that antigen.  **30.** A toxin that has been rendered nontoxic but is still capable of eliciting the formation of protective antitoxin antibodies; used in vaccines.  **33.** A specific chemical product of microbes, plants, and some animals that is poisonous to other organisms. |