1. The first formal ethical code for conducting research was:
   a. The Declaration of Helsinki
   b. **The Nuremberg Code**
   c. The Belmont Report
   d. The Council for International Organizations of Medical Science

2. Which of the following first promulgated the three principles of ethical research: respect for persons, beneficence and justice?
   a. The Declaration of Helsinki
   b. The Nuremberg Code
   c. **The Belmont Report**
   d. The Council for International Organizations of Medical Science

3. The key factor in conducting ethical research is:
   a. **Informed consent**
   b. Beneficence
   c. Justice
   d. Respect for persons

4. Vulnerable and mentally ill persons should not be included in research because they cannot not make informed decisions:
   a. True
   b. **False**

5. Confidentiality means that:
   a. The identity of the participant is not recorded
   b. **The principal investigator and staff have guaranteed that identifying information will not be revealed**
   c. The principal investigator does not know the identity of the participants
   d. The funding agency does not know the identity of the participants.
6. The informed consent must always be signed to assure that the participant has been informed of all aspects of the proposed study and has willingly agreed to participate:
   a. True
   b. False

7. In order to receive funding from the National Institutes of Health for funding of studies in developing countries, the principal investigator must receive approval from an ethics committee that:
   a. Includes epidemiologists
   b. Includes clergy from the local religions
   c. **Has received a federal-wide assurance**
   d. Has been approved by the Minister of Health of the country
   e. All of the above

8. All investigators and key staff must receive a certificate of completion of an approved ethics course before they can initiate a research study:
   a. True
   b. False

9. The definition of informed consent requires the following:
   i. Consent given by a competent individual
   ii. Who has received the necessary information
   iii. Who has adequately understood the information
   iv. Who considers the information and has arrived at a decision
   v. Has not been subjected to coercion, undue influence or inducement, or intimidation
   a. **All are required**
   b. i, ii, iii, and v are required
   c. i, ii, iii, and iv are required
   d. ii, iii, iv, and v are required
   e. None are required

10. Placebos may be used in clinical trials when:
    a. The alternative treatment is very expensive
    b. **There is no reasonably available alternative treatment**
    c. The standard treatment is associated with a risk of adverse side effects
    d. All of the above
    e. a. and c. above

11. Which of the following conditions is ethically required for a clinical or intervention trial in a developing country?
    a. Provide the treatment/intervention to the control group if successful
    b. Evaluate only interventions that could potentially be used in the country
    c. Provide treatment for any adverse outcomes resulting from participating in the trial
    d. **All of the above**
    e. a. and b. above
12. Injection drug use is NOT a problem in which of the following?
   a. China
   b. Southeast Asia
   c. **The Pacific Islands**
   d. South America
   e. The United States

13. Injecting drug users remain a part of their family and their community in which of the following?
   a. The United States
   b. China
   c. Southeast Asia
   d. All of the above
   e. **b. and c. above**

14. Harm reduction refers to:
   a. Detoxification and rehabilitation
   b. **Reducing the risk of HIV, HCV and HBV infection**
   c. Reducing sexual risk behaviors among injecting drug users
   d. Training in safe injecting procedures
   e. a. and d. above

15. The countries with the most injectors are:
   a. The U.S., Australia and Switzerland
   b. Russia, Thailand and Vietnam
   c. **China, the U.S. and Russia**
   d. Russia, Hungary and Myanmar
   e. Australia, New Zealand and Fiji

16. The primary objective of needle exchange programs is to:
   a. **Reduce the reservoir of infected needles and syringes in the drug network**
   b. Persuade drug users to stop sharing needles and syringes
   c. Reduce the risk to HIV-infected drug users
   d. All of the above
   e. b. and c. above

17. Which of the following countries in Southeast Asia does not have an injecting drug problem?
   a. Thailand
   b. Myanmar
   c. Vietnam
   d. Indonesia
   e. **Laos**
18. The proportional (%) increase in HIV prevalence at the end of the 20th century was greatest in:
   a. North and South America
   b. China, India, Indonesia and Russia
   c. Uganda, Haiti and Nigeria
   d. Philippines, Australia and New Zealand
   e. Italy, France and Germany

19. The estimated number of new AIDS cases in the United States declined sharply during:
   a. 1990-91
   b. 1995-96
   c. 2000-01
   d. 2006-07
   e. 1985-86

20. For which of the following groups is the percent of all HIV/AIDS cases increasing most rapidly in the United States?
   a. Injection drug users
   b. High-risk heterosexuals
   c. Men who have sex with men
   d. Female sex workers
   e. Pregnant women

21. In which ethnic group in the U.S. is HIV/AIDS increasing most rapidly?
   a. White, non-Hispanic
   b. Hispanic
   c. Black, non-Hispanic
   d. Asian
   e. American Indian/Alaska native

22. Which of the following activities is associated with the highest risk of HIV infection?
   a. Receptive vaginal intercourse
   b. Receptive anal intercourse
   c. Insertive anal intercourse
   d. Insertive vaginal intercourse
   e. Oral intercourse

23. Which of the following is/are a marker of a generalized HIV epidemic?
   a. Infected pregnant women
   b. Infected sex workers
   c. Infected drug users
   d. Plasma donors
   e. All of the above

24. Early in an HIV epidemic, the number of HIV-infected individuals will:
   a. Exceed AIDS cases
   b. Equal AIDS cases
   c. Be fewer than the number of AIDS cases
25. A “concentrated HIV/AIDS epidemic” is defined as a:
   a. Concentration of HIV infection among pregnant women
   b. **Concentration of HIV infection among behavioral risk groups**
   c. Concentration of AIDS cases among children
   d. Concentration of HIV/AIDS cases among defined ethnic groups
   e. Concentration of HIV/AIDS cases in a specified geographic area

26. Syphilis and gonorrhea are considered surrogate markers of risky sexual behavior:
   a. True
   b. False

27. Injecting drug users in Los Angeles are less likely to be HIV-infected than drug users in New York because:
   a. They use “black tar”
   b. They use “China white”
   c. They infect less frequently than drug users in New York
   d. They wash their needles after every use

28. Drug users in opioid replacement programs have fewer sexual partners than drug users not in replacement programs:
   a. True
   b. False

29. Metamphetamine taken orally does not increase the risk of HIV infection:
   a. True
   b. False

30. “Contingency management” refers to:
   a. Providing drug treatment in emergency situations
   b. Providing opioid replacement therapy when the drug users can't get drugs
   c. **Paying drug users for urine that is free of drugs**
   d. Paying drug users to stop using drugs when the county has funds available

31. “PrEP” refers to:
   a. Strategies to dissolve heroin before injecting
   b. **Taking antiretroviral drugs before engaging in high-risk activities**
   c. Taking antiretroviral drugs immediately after engaging in high-risk activities
   d. Drawing heroin solution into the syringe prior to injecting

32. The least cost-effective strategy for controlling spread of HIV is targeting:
   a. Persons with HIV infection
   b. High-risk individuals
   c. At-risk individuals
   d. **Low-risk individuals**
33. If the prevalence of HIV in a community is 10%, at what level will pooling of 10 specimens for testing become more expensive than individual testing?
   a. 1-2%
   b. 5-6%
   c. 9-10%
   d. 24-25%
   e. Pooling is never less expensive

34. Structural factors facilitating HIV prevention are:
   a. Policies, legislation, availability of condoms
   b. Behavior, local customs
   c. Prevalence of sex workers
   d. Prevalence injecting drug users
   e. Prevalence of drug providers

35. The average “effect size” (% change) resulting from behavioral interventions is:
   a. 5%
   b. 10%
   c. 30%
   d. 60%
   e. 90%

36. “Framing” the intervention appropriately is key to success:
   a. True
   b. False

37. Using the media to convey intervention messages typically has an “effect size” of:
   a. 1-2%
   b. 10%
   c. 30%
   d. 60%
   e. 90%

38. Behavioral interventions need to:
   a. Identify the specific actions that are required
   b. Address structural barriers
   c. Build cognitive, affective and behavioral self-management skills
   d. All of the above
   e. a. and c. above

39. The advantage of biologic interventions such as circumcision, vaccination, etc. is that they do not depend on behavioral factors:
   a. True
   b. False

40. Evidence shows that abstinence-only programs delay sexual debut, rates of unprotected sex, teen pregnancy, and prevalence of STDs:
   a. True
   b. False
41. The highest priority of the 2009 financial year U.S Federal budget request for HIV/AIDS is:
   a. Prevention of HIV/AIDS
   b. Global programs for HIV/AIDS
   c. Housing for HIV patients
   d. Research
   e. Treatment of HIV/AIDS

42. Qualitative research seeks to answer the question “why?”, whereas epidemiologic research often seeks to answer the question “how many?”
   a. True
   b. False

43. Which of the following is/are common strategies for collecting qualitative data?
   a. In-depth interviews of individuals
   b. Focus group discussions
   c. Participant observation
   d. All of the above
   e. a. and b. above

44. The individual in-depth interview is a very useful tool for collecting information when which of the following are true?
   a. Topic is complex
   b. Topic is sensitive
   c. Geographically dispersed respondents
   d. Peer pressure and social desirability can affect validity
   e. All of the above

45. African-Americans in the U.S. account for:
   a. 60% of infected women
   b. 59% of children less than 13 years old
   c. 59% of heterosexual persons at risk
   d. All of the above
   e. a. and c. above

46. The highest rate of HIV infection among African-Americans is in:
   a. Alabama
   b. Georgia
   c. Washington, D.C.
   d. Mississippi
   e. Florida

47. The differential rate of HIV infection between African-Americans and European-Americans is greatest for:
   a. Men
   b. Women
   c. Children less than 13 years old
   d. Residents of Idaho
48. What proportion of African-American men will be imprisoned during their lifetime?
   a. 6%
   b. 17%
   c. 33%
   d. 57%
   e. 92%

49. Men on the “downlow” have sex:
   a. With men and women
   b. In low-class establishments
   c. Only with men
   d. Dress like women
   e. With nobody

50. According to the young men’s survey what proportion of HIV-infected African-American men 15-24 years old are unaware that they are infected?
   a. 17%
   b. 39%
   c. 67%
   d. 78%
   e. 91%

51. The rate of transmission of a sexually transmitted disease is related to:
   a. Efficiency of transmission of the agent
   b. Mean rate of partner change
   c. Duration of infectiousness
   d. All of the above
   e. a. and b. above

52. According to Busch MP, Kleinman SH, Nemo GJ (JAMA 2003; 289:959-962), the current risk of receiving an HIV-infected unit of blood in the U.S. is:
   a. 1:676,000
   b. 1:103,000
   c. 1:1,800,000
   d. 1: 900,000

53. The first step for reducing transmission of HIV and other pathogens through blood in resource-poor countries is to:
   a. Reduce the unnecessary use of whole blood
   b. Screen blood donors
   c. Screen blood donations
   d. Accept blood donations only from nuns
   e. Accept blood only from pre-adolescent girls
54. What proportion of new HIV infections occur in low- and middle-income countries?
   a. 10%
   b. 25%
   c. 67%
   d. 75%
   e. >90%

55. Serial monogamy confers a greater risk of HIV transmission than concurrency:
   a. True
   b. False

56. Which of the following mixing patterns confers the greater risk of HIV transmission in the community?
   a. Assortive mixing
   b. Disassortive mixing
   c. Monogamy

57. The major determinant of the likelihood of transmission from an HIV-infected person is:
   a. Gender of the infected individual
   b. Stage of HIV disease in the infected individual
   c. Viral load of the infected individual
   d. CD4+ level of the infected individual
   e. CD4+ level of the uninfected partner

58. The replication of HIV takes place primarily in the:
   a. Peripheral blood vessels
   b. Lymphoid tissue
   c. Thymus
   d. Pancreas

59. The long terminal repeat section of the viral genome is associated with initiating viral replication:
   a. True
   b. False

60. Cells that carry both CD4 and CD8 receptors are most frequently found in:
   a. Memory cells
   b. Immature cells
   c. Senescent (old) cells
   d. B cells
   e. Antigen-presenting cells

61. The CD4+ cell provides help to:
   a. CD8+ cells
   b. B-cells
   c. CD3+ cells
   d. All of the above
   e. a. and b. above
62. “Core transmitters” are key to population-based control of sexually transmitted diseases:
   a. True
   b. False

63. The majority of HIV infection from mother to child in the absence of treatment occurs:
   a. In utero
   b. During the birth process
   c. During breast feeding
   d. Risk is equal in all the above stages

64. In countries with limited resources, the most effective regimen to give mothers prior to
    delivery to reduce HIV infection to their infants is:
   a. Nevirapine
   b. AZT
   c. Nevirapine + AZT
   d. Tetracycline
   e. Penicillin

65. In most very poor developing countries, the best strategy for avoiding HIV transmission
    from an infected mother to her uninfected baby in the first 6-8 months is:
   a. Exclusive breast feeding, stopping at 6 months
   b. Initiation of supplementary feeding at 3 months
   c. Exclusive breast feeding for three months and switching to formula
   d. Avoiding breast feeding

66. If untreated, the perinatal risk of transmission to an infant in Africa is:
   a. 5%
   b. 16%
   c. 40%
   d. 68%
   e. 90%

67. Latino women in the United States expect their husband to have other sexual partners:
   a. True
   b. False

68. Which of the following factors contribute to Latina women’s vulnerability to violence and
    STD infection?
   a. The “macho” culture
   b. Gender inequality
   c. Strong family ties
   d. All of the above
   e. a. and b. above

69. Almost half of Latinos infected with HIV were born in the United States:
   a. True
   b. False
70. What is the major risk factor for HIV infection among Latina women?
   a. Injection drug use
   b. Multiple partners
   c. Transfusions
   d. Ear piercing
   e. Their husbands/partners

71. The proportion of HIV-infected persons diagnosed late in their disease course is lowest for which risk group?
   a. African-Americans
   b. European-Americans
   c. Hispanic-American

72. Which of the following CDC categories of HIV infection constitute a diagnosis of AIDS?
   a. HV neurologic conditions
   b. Opportunistic infectious diseases
   c. Opportunistic cancers
   d. All of the above
   e. b. and c. above

73. Early AIDS dementia is usually manifested by:
   a. Cognitive slowing
   b. Motor slowing
   c. Loss of memory
   d. All of the above
   e. a. and b. above

74. In order to diagnose AIDS dementia, it is usually necessary to:
   a. Rule out depression
   b. Observe a decline in cognitive functioning over time
   c. Rule out schizophrenia
   d. All of the above
   e. a. and b. above

75. Which strategy below focuses on identifying an individual in order to put her/him under treatment?
   a. Surveillance
   b. Screening
   c. Sentinel surveillance
   d. Monitoring

76. Elimination of smallpox from the world was due to:
   a. Development of a new vaccine
   b. An infusion of money for childhood immunizations
   c. Innovative use of surveillance to contain spread
77. Which of the following is more important for surveillance?
   a. Precision
   b. Timeliness

78. The “window period” refers to:
   a. Time interval late in HIV infection, during which tests for HIV may be negative, although infection may still be transmitted
   b. Time interval early in HIV infection, during which tests for HIV may be negative, but infection is not transmitted
   c. **Time interval early in HIV infection during which tests for HIV may be negative, but infection may still be transmitted**
   d. Time interval early in HIV infection, during which tests for HIV may be positive, but infection will not be transmitted

79. Which of the following is the most functional epidemiologic design for implementing surveillance?
   a. Cohort
   b. Cross-sectional
   c. **Serial cross-sectional**
   d. Case reports
   e. Case-control

80. The MACS is an example of which of the following types of studies?
   a. Unlinked anonymous
   b. Voluntary anonymous
   c. **Voluntary confidential**
   d. Mandatory
   e. Compulsory

81. A major objective of many HIV surveillance programs is to stimulate political and social action:
   a. True
   b. False

82. Behavioral surveillance is useful for determining:
   a. The proportion of HIV-infected persons in a population
   b. The level of risk of a population for an HIV epidemic
   c. To predict future trends of an HIV epidemic
   d. All of the above
   e. **b. and c. above**

83. The Morbidity and Mortality Weekly Report published by the U.S. Centers for Disease Control is an example of:
   a. Active surveillance
   b. **Passive surveillance**
84. The most important group for the success of the Multicenter AIDS Cohort is the:
   a. Brilliant principal investigator and co-investigators
   b. Staff
   c. **Participants**
   d. Funding agency
   e. Public

85. Which of the following groups within the MACS is most likely to contribute to a biologic strategy for prevention of HIV infection?
   a. Long-term non-progressors
   b. Long-term survivors with low levels of CD4+ cells
   c. Rapid progressors
   d. **Men with many exposures to HIV who don’t seroconvert**
   e. Men who are receiving HAART therapy

86. The best predictor of rapid progression identified within the MACS is:
   a. **Level of viral RNA**
   b. Level of CD8+ cells
   c. Level of CD4+ cells
   d. Level of B cells
   e. Level of antibodies to HIV

87. The major focus of the MACS for the next several years will be to identify:
   a. Risk factors for HIV seroconversion
   b. The prevalence of HIV among MSM
   c. **Adverse outcomes associated with HAART**
   d. Spread of HIV to women

88. Which of the following is **NOT** an emerging issue for the gay community in the United States?
   a. Metamphetamine abuse
   b. Internet sex
   c. **Access to treatment**
   d. Prevention fatigue
   e. “Treatment fatigue”

89. Which of the following drugs is a particular risk factor for HIV among men who have sex with men in Los Angeles?
   a. Heroin
   b. Marijuana
   c. **Metamphetamine**
   d. Opium
   e. Cocaine
90. Which of the following is **NOT** a determinant of HIV infection/transmission?
   a. Partner exchange rate
   b. Viral RNA level
   c. Prevalence of condom use
   d. Stage of HIV disease
   e. **All are determinants**

91. “Exceptionalism” in regard to HIV/AIDS is a necessary factor for reducing spread of the virus:
   a. True
   b. **False**

93. The single most important factor for preventing further spread of HIV within a developing country is:
   a. The proportion of single men
   b. The proportion of single women
   c. Cultural factors
   d. **The political commitment of the leadership**
   e. The education level of its citizens

94. Pre-test counseling for HIV testing should primarily determine whether the individual is ready to be tested and learn their results:
   a. True
   b. **False**

95. The key to successful community intervention is:
   a. Development of a strategy by competent international investigators
   b. Acceptance that there is a problem by the community
   c. Acceptance of the responsibility to take action by the community
   d. All of the above
   e. **b. and c. above**