- 1. You have come across several ethical approaches to problem solving in this module. One of those approaches has been the most influential in the history of medicine. Was it a:
  - a) Utilitarian ethical approach
  - b) Deontological ethical approach
  - c) Virtue ethical approach
  - d) Legal approach
  - e) Categorical ethical approach
- 2. The deontological ethics requires that you never treat trial participant as a mere means to your end. This does not mean that you can't use people as trial participants at all. However, it means that you must usually get:
  - a) Approval from an ethics committee to do the research
  - b) The prospective participants un-coerced informed consent
  - c) Some assurance that the utility (for society) generated by the research outweighs the cost (for participants)
  - d) Approval from the Health Department for your trial
  - e) Approval from the Medical research Council for your trial
- 3. Historically speaking, ethical review of research came about, because:
  - a) People discovered that that would generate badly needed jobs for ethicists
  - b) Of serious failings by some researchers throughout history to ensure that trial participants are not exploited or harmed one way or another during the trial
  - c) Researchers discovered that without ethical review they would have problems seeing their findings published in important international biomedical journals
  - d) Legislators deemed it necessary to force ethical review processes upon clinical researcher and anyone else involved in using human participants for research purposes
  - e) People were sceptical that self-regulation by scientists would be the appropriate answer to ethical concerns in biomedical research involving human participants

- 4. The historically first international guideline pertaining to research involving human participants was the:
  - a) Declaration of Helsinki
  - b) Declaration of Japan
  - c) Nuremberg Code
  - d) WHO Ethical Guideline
  - e) Set of CIOMS Guidelines
- 5. The two primary tasks of ethical reasoning are:
  - a) To inform people about the legal situation and historical context as they pertain to their work
  - b) To inform people about what they ought to be doing, and why they should do it
  - c) To ensure that people act ethically and within the boundaries of the law
  - d) To ensure that researchers become good ethicists in their own right and do the right thing by their trial participants
  - e) To guarantee good clinical practice and application of sound clinical methodology during biomedical research
- 6. Informed consent is important because
  - a) It enables the participant to understand vital information on the proposed trial
  - b) It provides the participant will all the information regarding remote risks
  - c) It enables the investigator to recruit participants of his choice
  - d) It promotes clinical research
- 7. Informed consent refers to:
  - a) Principle of autonomy
  - b) Voluntary but uninformed decision-making
  - c) A voluntary decision to participate in research, by a competent individual who has received and understood the necessary information
  - d) Permission to participate in research
- 8. Capacity to consent to trial participation may not be diminished by:
  - a) Poverty
  - b) Source of research funding
  - c) Lack of understanding
  - d) Cultural barriers
  - e) Situational pressure

- 9. What gives ethical validity to the procurement informed consent?
  - a) Detailed documentation of the process
  - b) Capacity of the participant to consent
  - c) Quality of the disclosed information
  - d) Quality of the interaction between the prospective participant and the recruiting physician/investigator
- 10. Which set of the following information need not be disclosed to a prospective participant to procure informed consent?
  - a) All the possible risks associated with participation; possibility of active deception by the investigators; confirmation that the study has an ethics review committee's approval
  - b) That the study involves research; sources of funding; anticipated benefits and potential risks
  - c) The discomfort that may be associated with participation; the right to withdraw from participation at any stage without reprisals; institutional affiliations of the researcher
  - d) Aims of the trial; methods to be used in the trial; possible conflicts of interest
- 11. Which set does not represent vital elements of informed consent?
  - a) Capacity to consent; voluntary decision to participate; adequate comprehension of the provided information
  - b) Ability to withdraw from the trial without reprisals; full comprehension of the provided information; documentation of informed consent
  - c) Full disclosure of relevant information; capacity to consent; voluntary decision to participate
  - d) Adequate comprehension of the provided information; capacity to consent; voluntary decision to withdraw from the trial at any stage
- 12. When is active deception of prospective participants necessary?
  - a) Never
  - b) When no other research method suffices
  - c) When deemed indispensable
  - d) For security reasons
- 13. Can the requirement for informed consent be waived?
  - a) Yes, at the discretion of the investigator
  - b) No, unless a designated ethics review committee approves

- c) Never
- d) Yes, with the consent of the participant
- 14. What are some of the hindrances to achieving genuine informed consent internationally and in South Africa?
  - a) Poverty, illiteracy and implicit forms of coercion
  - b) Disease burden, forgetfulness and cultural barriers
  - c) Language barriers, confusion and lack of capacity to consent
  - d) Incentives, situational pressure and health care professionals' assumed beneficence
- 15. Who cannot consent to trial participation in South Africa?
  - a) Healthy but poverty stricken volunteers
  - b) Healthy volunteers below the age of 18
  - c) Mentally stable but sick adults
  - d) Medical students
- 16. When is assent mandatory in procuring informed consent?
  - a) When the prospective participant is a minor
  - b) When the prospective participant is unconscious
  - c) When the prospective participant has a mental disability
  - d) When the prospective participant is a mature minor who is capable of making appropriate decisions about trial participation
- 17. Who gives consent in cases of minors who have no parents or guardians?
  - a) Consent can be waived, as it is not necessary
  - b) Nobody
  - c) A social worker
  - d) Legal guardians
- 18. Which of the following scenarios may lead to role confusion in participant recruitment?
  - a) Recruitment by community leaders
  - b) Recruitment by a trial investigator
  - c) Recruitment by the participants' relations
  - d) Recruitment by an investigator who is also a physician who has been providing medical care to the prospective participant
- 19. When does a community leader's authorisation of participants' recruitment replace an individual participant's consent?
  - a) Never
  - b) When the community's interests are at stake

- c) When the proposed trial is likely to benefit the community
- d) Always
- 20. What role does a community/local leader's authorisation play in the recruitment of participants?
  - a) It gives the proposed trial ethical validity
  - b) It fosters respect for the local customs and expectations
  - c) It ensures that the community members volunteer in large numbers
  - d) It plays no role
- 21. Vulnerable populations are those best characterised as:
  - a) relatively poor persons
  - b) persons experiencing emotional distress
  - c) non-citizen residents of a foreign country
  - d) persons who stand in severely unequal power relationships with others
  - e) persons who are mentally incompetent
- 22. Prisoners are considered a vulnerable population for each of the following reasons except for:
  - a) the fact that their incarcerated status places them in unequal power relationships
  - b) the fact that prisoners are easily influenced by rewards and incentives
  - c) the fact that prisoners can never give informed consent under any circumstances
  - d) the fact that prisoners may have very options to distinguish themselves from others
  - e) the fact that prison guards may mistreat prisoners who do not choose to participate in research studies
- 23. Clinical research involving refugees is:
  - a) relatively unregulated with few ethical guidelines directly addressing refugees as a vulnerable population
  - b) relatively regulated with most ethical guidelines addressing refugees as a vulnerable population.
  - c) more ethically acceptable than research on prisoners
  - d) less ethically acceptable than research on mentally incompetent adults
  - e) always sufficiently reviewed by the appropriate host country authorities
- 24. When conducting clinical research involving impoverished persons of developing world countries, perverse incentives must often be balanced against:

- a) placebo arms of clinical trials
- b) the need for more money in local communities
- c) absolute standards of care
- d) cultural attitudes toward reciprocity
- e) the propensity of incentives to unduly influence decision making and pre-empt informed consent
- 25. The World Medical Association ethical guidelines were first formulated under the:
  - a) the Nuremberg Code
  - b) the CIOMS International Ethical Guidelines for Biomedical Research
  - c) the Declaration of Helsinki
  - d) the Council of Trent
  - e) the Tuskegee syphilis study
- 26. Mentally incompetent persons:
  - a) cannot rely on proxies to give informed consent
  - b) should not participate in clinical research according the Nuremberg Code
  - c) should not participate in clinical research according to the Declaration of Helsinki
  - d) can only ethically participate in non-therapeutic research
  - e) were the primary subject of controversy during the Tuskegee syphilis study
- 27. Research involving vulnerable populations must always:
  - a) leave the participants better off than they were before
  - b) address questions that cannot be answered by conducting research on other, non-vulnerable populations
  - c) follow local standards of care
  - d) involve participants residing in developing world countries
  - e) secure informed consent (directly or by proxy) from research participants
- 28. The ACTG 076 protocol:
  - a) is the name of the short-course of zidovudine standardly available in developing countries
  - b) is 99% effective in the prevention of mother to child transmission of HIV
  - c) involves an experimental microbicide
  - d) was the 'best proven' treatment for the prevention of mother to child transmission of HIV in 1994
  - e) was tested against placebo in clinical trials which took place in developing countries in 1994

- 29. Defenders of the ethical acceptability of placebo-controlled clinical trials of the short-course of zidovudine for prevention of perinatal HIV transmission in developing countries argued that:
  - a) Declaration of Helsinki requirements concerning control arms were appropriate and should be preserved
  - b) Declaration of Helsinki requirements concerning control arms were inappropriate and should be changed
  - c) placebo-controlled studies take longer and require larger numbers of research participants
  - d) human participants in control arms should always receive the 'best proven' therapeutic method
  - e) Declaration of Helsinki requirements regarding informed consent were too demanding and should be loosened
- 30. Critics of the ethical acceptability of placebo-controlled clinical trials of the short-course of zidovudine for prevention of perinatal HIV transmission in developing countries argued that:
  - a) placebo controlled studies are never morally acceptable
  - b) the ACTG 076 protocol was generally affordable in developing countries
  - c) double standards are appropriate because the ACTG 076 protocol was not affordable in developing countries
  - d) Declaration of Helsinki requirements should be weakened
  - e) historical controls would have sufficed
- 31. Defenders of the ethical acceptability of placebo-controlled clinical trials of the short-course of zidovudine for prevention of perinatal HIV transmission in developing countries argued that:
  - a) placebo control is always morally acceptable
  - b) placebo control was necessary to determine the relative efficacy of the short-course of zidovudine
  - c) developing world patient-participants would be harmed if they were denied the 'best proven' treatment for the prevention of mother-to-child transmission of HIV
  - d) patient-participants who received placebo would not be harmed
  - e) informed consent is a sufficient condition for the moral acceptability of research involving human participants
- 32. Schüklenk argues that:
  - a) the answers to ethical questions should be determined by economic criteria

- b) the ACTG 076 protocol is in fact ineffective
- c) in research on human participants, the interest of science and society should always take precedence over considerations related to the well-being of the subject
- d) the Tuskegee syphilis studies were morally unproblematic
- e) local standards of care are in fact determined by prices set by drug companies
- 33. The Declaration of Helsinki is a document of:
  - a) The American Medical Association
  - b) The Helsinki Health Institution
  - c) The World Health Organization
  - d) The World Medical Association
  - e) The Federal Drug Administration
- 34. The current version of the Declaration of Helsinki states that control arm participants should (generally) receive:
  - a) the 'best current' treatment
  - b) the 'best proven' treatment
  - c) the 'best locally available' treatment
  - d) 'no treatment'
  - e) proven effective' treatment
- 35. The latest version of the Declaration of Helsinki explicitly states that:
  - a) all participants involved in studies related to HIV should be provided with HAART at the conclusion of the study
  - b) those who become infected with HIV during the course of vaccine trials should be provided with HAART at the conclusion of the study
  - c) it is unnecessary to provide condoms and counseling to participants in microbicide trials
  - d) medical experiments are ethically justified so long as their results are likely to benefit the world population
  - e) every patient entered into a study should be assured of access to the best proven prophylactic, diagnostic, and therapeutic methods identified by the study
- 36. CIOMS/WHO guidelines require that control arm participants generally receive:
  - a) the best current method
  - b) the best locally available method
  - c) historical control
  - d) an established effective intervention
  - e) coercion

- 37. According to Department of Health guidelines in South Africa,
  - a) it may be justifiable to use placebo in communities that do not have access to interventions that are the standard care in resource-rich settings
  - b) placebo control should never be considered ethically acceptable
  - c) informed consent is a sufficient condition for the moral acceptability of research involving human participants
  - d) informed consent is unnecessary so long as there are good reasons to believe that both the individuals involved and the community as a whole are likely to benefit from research participation
  - e) it is inevitable that drug trials will often prejudice the ongoing treatment and care of patients
- 38. The following documents must be made available to the REC for review prior to trial approval:
  - a) trial protocol
  - b) written informed consent forms
  - c) information on serious adverse events from the Data Safety and Monitoring Board (F)
  - d) declaration of conflict of interest of the researcher where appropriate
  - e) participant recruitment procedures
- 39. Acceptable recompense for trial participation includes:
  - a) reimbursement for transport
  - b) reimbursement for lost earnings
  - c) extensive medical services
  - d) reimbursement for inconvenience and time spent as a result of their participation in research
  - e) free medical services either related or unrelated to research participation
- 40. According to the WHO guidelines for ethics review, RECs must be constituted and perform according to the following principles for ethical review:
  - a) independence
  - b) competence
  - c) pluralism
  - d) transparency
  - e) scientific integrity

- 41. Scientific misconduct refers to
  - a) a researcher accidentally misquoting his or her data
  - b) fabrication, falsification, plagiarism, or some other deviation from what is commonly accepted by the scientific community
  - c) failure to achieve expected results
  - d) accidental failure to cite a source
- 42. Which of the following are susceptible to conflicts of interest?
  - a) authors
  - b) researchers
  - c) editors
  - d) all of the above
- 43. If a researcher finds himself in a situation where he or she has a conflict of interest he or she should not do which of the following
  - a) disclose the information to his research participants
  - b) keep the information to himself or herself so as to not to frighten the participants
  - c) disclose the information to the medical journal to which he will submit the data
  - d) avoid such conflicts in the future
- 44. Which of the following scenarios is likely lead to generate conflicts of interest?
  - a) recruitment of researchers by a university
  - b) recruitment of researchers by a medical journal
  - c) recruitment of researchers by a drug company
  - d) government recruitment of researchers
- 45. Plagiarism refers to which of the following?
  - a) copying verbatim and without citing the source
  - b) stealing the intellectual property of someone else without citing the source
  - c) using the examples from another paper but mixing up the order so it is unrecognisable
  - d) all of the above
- 46. Which of the following is not one of the necessary conditions for authorship as given in the Vancouver Guidelines of the ICMJE?
  - a) substantial contribution to conception and design, or acquisition of data, or analysis and interpretations of data

- b) acquisition of essential funding required to undertake the research
- c) drafting the article or revising it critically for important intellectual content
- d) final approval of the version to be published
- 47. To be considered an author, one must fulfil how many of the three authorship criteria according to the ICMJE?
  - a) 1
  - b) 2
  - c) 3
  - d) None
- 48. Under what circumstances, if any, is secondary publication acceptable?
  - a) if it is published in a different journal than the first publication
  - b) if the paper is intended for a different group of readers
  - c) if no one will recognise the paper from its first publication
  - d) if the author wishes to publish it again