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A collection of test questions and cases for students on the discipline

**BIOETHICS**

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Designed for students of higher educational institutions as well as for those who are interested in the problems of bioethics.

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## **БИОЭТИКА**

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Предназначено для студентов высших учебных заведений, а также для всех интересующихся проблемами этики.

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## Preface

Bioethics could be defined as the study of ethical issues and decision-making associated with the use of living organisms. Bioethics includes both medical ethics and environmental ethics. Bioethics is learning how to balance different benefits, risks and duties. Concepts of bioethics can be seen in literature, art, music, culture, philosophy, and religion, throughout history.<sup>1</sup>

In order to have a sustainable future, we need to promote bioethical maturity. We could call the bioethical maturity of a society the ability to balance the benefits and risks of applications of biological or medical technology. It is also reflected in the extent to which public views are incorporated into policy-making while respecting the duties of society to ensure individual's informed choice. Awareness of concerns and risks should be maintained, and debated, for it may lessen the possibility of misuse of these technologies. Other important ideals of bioethics such as autonomy and justice need to be protected and included when balancing benefits and risks.

Bioethics is not about thinking that we can always find one correct solution to ethical problems. Ethical principles and issues need to be balanced. Many people already attempt to do so unconsciously. The balance varies more between two persons within any one culture than between any two. A mature society is one that has developed some of the social and behavioural tools to balance these bioethical principles, and apply them to new situations raised by technology. Some goals of bioethics include: 1) Increasing respect for life; 2) Balancing benefits and risks of Science and Technology; 3) Understanding better the diversity of views of different persons.

What is *medical ethics* and why do we study bioethics in medical educational institutions? *Medical ethics* is the clinical branch of bioethics dealing with the ethics of physicians and surgeons. It is to be distinguished from NURSING ETHICS (q.v.), Physiotherapy Ethics, Pharmacist Ethics, etc. Medical ethics includes many subcategories. Internists and oncologists tend to take a major interest in questions of care and the discontinuation of care of terminal patients, truth-telling, and the like. Neonatologists deal with patients who are incapable of making informed decisions on their own, but whose parents or guardians cannot always be counted on to make the best decision for them. Psychiatrists and paediatricians have patients with varying and often-unclear degrees of ability to

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<sup>1</sup>“Cross Cultural Introduction to Bioethics” Eubios Ethics Institute 2005 < <http://www.unescobkk.org/index.php?id=2508>>

make informed choices. Gynaecologists have questions about abortion, in-vitro fertilisation, etc.<sup>2</sup>

Bioethicists can play different kinds of roles in medical ethics. Some people think that medical ethics is a branch of philosophy. There are ethicists, sometimes with education in philosophy, who serve on hospital ethics committees or who accompany physicians on rounds, participating in clinical decisions. But it can be debated whether an education in philosophy gives sufficient understanding of the clinical realities to make decisions about life and death. So others think that the people to make the clinical ethical decisions should be physicians and nurses, and that the role of philosophical bioethicists should be pedagogical, helping to educate physicians and nurses to think deeply when they approach clinical ethical questions.

It is doubtful whether one person alone should take life and death decisions, like DNR, even if that person is the most distinguished professor of medicine. Weighty decisions should be made together with the patient and family, whenever possible, and after consultation in the ward staff meeting, with other physicians, nurses and social workers.

Cultural Bioethics adopts values and beliefs mainly from religion, combined traditional values and cultural outlook of people. Usually traditional cultural practices and values of society are reflected in medical ethics, as well as in the laws on health care of any country. While international bodies and organizations are working on producing universal bioethical standards and guidelines (ex.: UNESCO, World Medical Association) for medical professionals, the legal basis and bioethical guidelines vary in each country.

The course of bioethics and this particular collection of tests, cases, exercises and questions is designed for students with different cultural, religious and ethnic backgrounds who study medicine in Russia. This book has reference to legal basis of bioethics in Russia, India and United Kingdom. The test questions are designed with compliance to the curriculum of the bioethics course for students of first year of training studying General Medicine.

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<sup>2</sup>UNESCO, 2011. Casebook on Human Dignity and Human Rights, Bioethics Core Curriculum Casebook Series, No. 1, UNESCO: Paris, p.vii

## Test №1. Introduction to bioethics

1. The Greek word "ethics" means:

- A) custom
- B) nature
- C) behavior
- D) interaction
- E) identity

2. The subject of science "bioethics" is:

- A) ethical issues in biomedical research
- B) the interaction between man and nature
- C) the duty of the pharmacist
- D) debt doctor

3. The term "bioethics" means:

- A) Business Ethics
- B) The ethics of advertising
- C) "Bridge to the Future"
- D) Professional ethics of health professionals
- E) The ethics of science

4. Deontology - is:

- A) teaching about social justice
- B) the science of the rules of behavior in society
- C) part of the ethics
- D) the doctrine of moral duty
- E) The science of market

5. The First Law of Medical Ethics states:

- A) Thou shalt not kill
- B) Do No Harm
- C) Do not disclose others' secrets



- D) Do not break the law
- E) Do not be unfair

6. Who was the author of the term ethics?

- A) Aristotle
- B) Plato
- C) Hippocrates
- D) Buddha

7. Find the right balance between discipline and its question.

Science asks	
Law asks	
Morality asks	

- A) "Should we?"
- B) "Can we?"
- C) "May we?"

8. Please match the terms with its definitions:

	Software and hardware which has similar characteristics to living organisms. Using nature as the model, programs such as ‘genetic algorithms’ and ‘cellular automata’ are created with. The potential ethical danger from this is that artificial life can evolve at an incredibly greater speed than any biological system.
	Foods produced from <u>organisms</u> that have had specific changes introduced into their <u>DNA</u> using the methods of <u>genetic engineering</u> .
	Regulation of the growth and distribution of people in a country or region.
	The spontaneous or deliberate termination of pregnancy before the embryo or fetus has been born, or is viable outside the womb.
	A series of <u>medical experiments</u> on large numbers of prisoners, mainly <u>Jews</u> (including Jewish children) from across Europe, but also in some cases <u>Romani</u> , <u>ethnic Poles</u> , <u>Soviet POWs</u> and disabled non-Jewish Germans, by <u>Nazi Germany</u> in its <u>concentration camps</u> mainly in the early 1940s, during <u>World War II</u> and <u>the Holocaust</u> .

	One of the important components of bioethical principles and a fundamental component in the physician-patient relationship, stemming primarily from the Hippocratic oath. All information of a person, whether personal, private or genetic is confidential and not to be revealed to others without the individual's consent.
	All couples and individuals have the basic right to decide freely and responsibly the number and spacing of their children and to have the information, education, and means to do so. As stated in the <i>1984 UN recommendation on basic human rights</i> .
	Is the act of intentionally causing one's own <a href="#">death</a> .
	The process of asexually producing a group of cells (clones), all genetically identical to the original ancestor.
	Organisms containing foreign genes, Transgenic organisms, currently called Living Modified organisms (LMOs).
	Biologically inactive substance used for its psychological effect in patient care or as control agent in research.
	The carrying of a <a href="#">pregnancy</a> for intended parents. There are two main types of surrogacy, <a href="#">gestational</a> surrogacy and traditional surrogacy.
	An international <a href="#">cultural</a> and <a href="#">intellectual movement</a> with an eventual goal of fundamentally transforming the <a href="#">human condition</a> by developing and making widely available technologies to greatly <a href="#">enhance human</a> intellectual, physical, and psychological capacities.
	The notion of animal rights extends rights to certain non-humans, typically those with sentience, that is, the ability to feel pleasures and pains. Those who advocate animal rights maintain that to allow humans rights but to deny them to all other species is speciesist - which is unacceptably discriminatory.
	A list of guarantees for those receiving medical care. It may take the form of a law or a non-binding declaration. Typically a patient's <a href="#">bill of rights</a> guarantees patients information, fair treatment, and <a href="#">autonomy</a> over medical decisions, among other rights.
	The <a href="#">trade</a> involving inner <a href="#">human organs</a> (heart, liver, kidneys, etc.) for <a href="#">organ transplantation</a> . There is a worldwide shortage of organs available for transplantation, yet commercial trade in human organs was a while ago illegal in all countries except <a href="#">Iran</a> .
	Provision of information and/or the means to enable a patient to take his or her own life.
	Attempts to improve hereditary qualities through selective breeding. Word means " <i>good breeding</i> " from the Greek names Eugene and Eugenia expressing the notion of "well born" which was a

	celebration of parent's belief that their offspring are especially blessed.
	Although medical and scientific evidence surrounding vaccination demonstrate that the benefits of preventing suffering and death from <a href="#">infectious diseases</a> far outweigh rare <a href="#">adverse effects</a> of <a href="#">immunization</a> , there were vaccination controversies almost 80 years before the terms <a href="#">vaccine</a> and <a href="#">vaccination</a> were introduced in 1798–1800.
	A theoretical device that would allow for extracorporeal pregnancy or extrauterine fetal incubation(EUFI) by growing an <a href="#">embryo</a> or <a href="#">fetus</a> outside of the body of a female organism that would normally internally carry the embryo or fetus to term.
	The science of producing very low temperatures, as well as the applications, phenomena and technology pertaining to those temperatures. Applications include cryobiology, cryosurgery and the cryopreservation of biological samples.
	Medical, legal, social and ethical concept representing a ban HCP (healthcare personnel) to disclose to third parties information about the patient's health status, diagnosis, examination results, the fact of seeking medical help and information about his personal life, obtained by examination and treatment.
	The merciful hastening of death, often limited to willful and merciful actions to kill of one who is injured or terminally ill. (in Greek " <i>an easy death</i> ").
	The prevention of birth. It has not been an exclusivity of females, since males have used different means to kill sperm cells before intercourse. Birth control policies in Latin America have been introduced with great effort since the sixties, first by private ONGs, then by national health services, but in many of these countries, the Catholic church has tirelessly been opposed to any method different from the rhythm method (Ogyno).

- A) Abortion
- B) Animal rights
- C) Artificial life
- D) Artificial womb
- E) Assisted suicide
- F) Cloning
- G) Medical confidentiality
- H) Medical secrecy
- I) Birth control
- J) Cryonics
- K) Eugenics

- L) Euthanasia
- M) Genetically modified foods
- N) Genetically modified organism
- O) Nazi human experimentation
- P) Patient`s Bill of Rights
- Q) Placebo
- R) Population control
- S) Reproductive rights/freedom
- T) Suicide
- U) Surrogacy
- V) Transhumanism
- W) Transplant/organ trade
- X) Vaccination controversy

## Case Study

### **Case: An environmental activist who has three showers a day**

A 35-year old man, Mario, is well known as an environmental activist of one of the most famous international NGOs. His activities and suggestions are well supported by many other professionals, institutions, and private firms. Since he is a popular person and also a hard worker, his daily life is quite busy, from 7 am to 1 am when he goes to bed. Still, however, he has time to spend with his family and to do exercise and have a shower or bath after that. This means that he is having a shower 3 times a day at least, in the morning, after exercise, and before going to bed. He uses a quite a lot of water compared to those who has a shower just once a day. Having showers in the morning and before going to bed are what he`s been doing for more than 30 years. Mario is trying to have environment- friendly life style but has not thought about his shower routine very much. This year, because of the success of a large project on saving water he was nominated as “a person contributed to energy saving of a year”.

### **Questions:**

*Q1. Do you see any moral problems in this case?*

*Q2. Is 3time-shower a day a lot?*

*Q3. If people know that Mario takes showers three times a day, would they cancel the nomination of him as “a person contributed to energy saving of a year”, and why or why not?*

*Q4. What do you suggest Mario if he considers using less water for his shower?*

Useful resources:

Video: “HSBC integrity advert” (<http://www.youtube.com/watch?v=VrS9Crynlds>)

Bioethics online dictionary: <http://www.eubios.info/biodict.htm>

## Test №2. Euthanasia.

**1. What is Euthanasia?** Euthanasia, from the Greek words meaning...

- A) violent death
- B) good death
- C) mercy killing
- D) bad death

**2. What is the difference between "active" and "passive" euthanasia?**

- A) "Active" euthanasia refers to *an action one takes* to end a life, for example, a lethal injection. "Passive" euthanasia refers to *an omission* - such as failing to intervene at a life-threatening crisis, or failing to provide nourishment.
- B) "Active" euthanasia refers to *an omission* - such as failing to intervene at a life-threatening crisis, or failing to provide nourishment.
- C) "Passive" euthanasia refers to *an action one takes* to end a life, for example, a lethal injection.

**3. What kind of treatments and interventions, then, are morally obligatory, and which are not?**

- A) No matter how ill a patient is, we never have a right to put that person to death. Rather, we have a duty to care for and preserve life.
- B) The physician should help incurable patient to die.

**4. What are some of the common myths supporting euthanasia and assisted suicide?**

- A) It is a myth that most terminally ill people seek suicide. "According to available data, only a small percentage of terminally ill or severely ill patients attempt or commit suicide."
- B) It is a myth that requests for suicide represent a person's true desires. "Like other suicidal individuals, patients who desire suicide or an early death during a terminal illness are usually suffering from a treatable mental illness, most commonly depression."
- C) It is a myth that terminal illness has to involve unmanageable pain. "Taken together, modern pain relief techniques can alleviate pain in all but extremely rare cases."

**5. How does "voluntary" euthanasia lead to non-voluntary" euthanasia?**

- A) "Right to die" proponents couch their arguments in terms of personal freedom and voluntary choice.
- B) As soon as you say that people have a "right" to end their lives (voluntary euthanasia), you have *automatically and immediately* introduced *non-voluntary* euthanasia, that is, killing people without their having asked for it.

**6. How are euthanasia and assisted suicide political issues?**

- A) The first purpose of government is to defend and protect the lives of the citizens, and both euthanasia and assisted suicide contradict that fundamental purpose.
- B) The government should guarantee the rights of citizens, including the right to dispose of their lives.

7. Euthanasia is legalized in the following countries:

- A) Belgium
- B) Netherlands
- C) Switzerland
- D) some US states
- E) Russia

8. Does euthanasia contradict the Hippocratic Oath?

- A) It does contradict the Hippocratic Oath.
- B) We should remember the oath does not take in count the patients will.

9. What does the Hippocratic Oath mean?

- A) Do not use your skill for a bad cause.
- B) Use your skill for a bad cause.

10. What does religion say about euthanasia and/or having a living will?

- A) God alone is sovereign over when and how a person's death occurs. God has the final say over death. Euthanasia is man's way of trying to usurp that authority from God.
- B) God created man free, man has a right to die.

11. What are the different types of euthanasia?

- A) voluntary, non-voluntary or involuntary,

B) an active or passive procedure.

12. Many legal systems in the world treat all forms of Euthanasia as ...

A) criminal homicide.

B) legitimate action

13. Find the correct correlation of the term and its definition.

	... euthanasia occurs when euthanasia is performed on a person who is able to provide informed consent, but does not, either because they do not choose to die, or because they were not asked.
	... euthanasia refers to the practice of ending a life in a painless manner.
	... euthanasia (sometimes known as mercy killing) is euthanasia conducted where the explicit consent of the individual concerned is unavailable, such as when the person is in a persistent vegetative state. It contrasts with involuntary euthanasia, where euthanasia is performed against the will of the patient.

A) Involuntary

B) Voluntary

C) Non-voluntary

### Case Study

#### **Case 1: Repeated attempts to commit suicide**

A 21 year-old woman was taken by ambulance to the hospital with severe bleeding. She had tried to commit suicide by slashing her wrist in her bedroom, and her room mate found her, and called an ambulance. Hospital staff and doctors immediately identified her as Ms. D, because she had been taken there a few times in the past three years for the same reason. One of the staff nurses wondered if they really need to try to cure her injury again because it was obvious that she would try to commit suicide again, and would be carried here again. It is busy in the hospital and many other injured and sick people, who got sick through no fault of their own, are waiting for their turn to see a doctor for a long time. After the treatment, her doctor talked to her and she said she would not do the same thing again, which she says every time. She never answers questions about herself to the hospital counselor, or talks about the background, which causes this problem.

#### **Questions:**

*Q1. What is the most important issue of this situation?*

*Q2. Is it necessary to help her every time? Does she want it?*

*Q3. What would you do if you were her roommate?*

*Q4. Does the hospital need to know about her personal situation or private problems related to her behavior?*

*Q5. Should the hospital arrange for a counselor/social worker to visit her at home? Should the hospital be involved in patient psychiatric care?*

*Q6. How should the health care system balance the involvement of counselors and patient's autonomy?*

### **Case 2: Patient refuses treatment**

A man in his 60s, suffered from chronic respiratory failure, caused by bacterial pneumonia and is taken to the hospital for respiratory failure. An endotracheal intubation was conducted. He has repeated the same kind of acute exacerbation, emergent hospitalization, and assisted breathing three times. Two weeks later when his pneumonia had calmed down and the situation became sustainable, tracheotomy was performed in the patient with consent. The patient's will was clear so that he could communicate with his family and medical staff well enough. Because of the repeated pneumonia and chronic obstructive pulmonary disease, however, a noninvertible organic shift was caused in his lung cells, and it became clear that there was almost no possibility that he could live without wearing a ventilator. Three months later since he started to wear a ventilator, there is no progress in his breathing system. In this situation, the patient wrote down to request to stop the artificial breathing and take the tube out from him. Which meant that he requested to stop artificial breath treatment after understanding completely that stopping artificial breath would lead to his death, and after making a comparison that "it is better to die instead of getting the life extended in such situation".

### **Questions:**

*Q1. What are possible options of treatment for this case in your country?*

*Q2. What are important factors in informed consent you see from this case?*

*Q3. How do you reflect this case from the perspective of Lisbon Declaration of the World Medical Association?*

Useful resources:

- *WORLD MEDICAL ASSOCIATION DECLARATION OF LISBON ON THE RIGHTS OF THE PATIENT* (full text available from <http://dl.med.or.jp/dl-med/wma/lisbon2005e.pdf>)
- "Legality of euthanasia" ([http://en.wikipedia.org/wiki/Legality\\_of\\_euthanasia](http://en.wikipedia.org/wiki/Legality_of_euthanasia))

### **"3. Right to self-determination**

a. The patient has the right to self-determination, to make free decisions regarding



himself/herself. The physician will inform the patient of the consequences of his/her decisions.

b. A mentally competent adult patient has the right to give or withhold consent to any diagnostic procedure or therapy. The patient has the right to the information necessary to make his/her decisions. The patient should understand clearly what is the purpose of any test or treatment, what the results would imply, and what would be the implications of withholding consent.

c. The patient has the right to refuse to participate in research or the teaching of medicine...

**... 10. Right to dignity**

a. The patient's dignity and right to privacy shall be respected at all times in medical care and teaching, as shall his/her culture and values.

b. The patient is entitled to relief of his/her suffering according to the current state of knowledge.

c. The patient is entitled to humane terminal care and to be provided with all available assistance in making dying as dignified and comfortable as possible.”

*(WORLD MEDICAL ASSOCIATION  
DECLARATION OF LISBON ON THE RIGHTS OF THE PATIENT,  
Lisbon, Portugal, October 1981)*

**Test №3. Abortion and Prenatal Diagnosis**

1. Human life is of high worth and significance.

- A) True
- B) False

2. A fetus is not technically a human being until it is born.

- A) True
- B) False

3. Abortion can have severe effects on a woman's body.

- A) True
- B) False

4. Abortion is just a woman's issue.
  - A) True
  - B) False
  
5. Abortion is not "murder" because an unborn fetus is not a human being.
  - A) True
  - B) False
  
6. A fetus cannot feel pain during an abortion.
  - A) True
  - B) False
  
7. Most abortions are performed fairly quickly.
  - A) True
  - B) False
  
8. Fetal tissue harvesting involves scientific testing on aborted baby body parts.
  - A) True
  - B) False
  
9. Most abortions are attributed to rape and incest.
  - A) True
  - B) False
  
10. Women around the world have abortions for different reasons.
  - A) True
  - B) False
  
11. There is a little relationship between legal status of abortions and how often it occurs.
  - A) True
  - B) False
  
12. Please choose continents and regions with highest abortion rates:

- A) Europe
- B) Asia
- C) Latin America
- D) North America
- E) Australia and New Zealand
- F) Africa

13. Please choose 1 region with lowest abortion rates:

- A) South Asia
- B) Latin America
- C) North America
- D) Eastern Europe
- E) Australia
- F) North Africa
- G) Central Africa
- H) West Africa
- I) Western Europe

14. Please think about the reasons for abortions and try to suggest few ways of reducing number of unintended pregnancies.

- A) \_\_\_\_\_
- B) \_\_\_\_\_
- C) \_\_\_\_\_
- D) \_\_\_\_\_
- E) \_\_\_\_\_

15. Making abortion illegal does not stop it from occurring, it just drives it underground.

- A) True
- B) False

16. Illegal abortions, also known as unsafe abortions, are the leading cause of maternal death.

- A) True
- B) False

17. Approximately 47 000 women die every year from complications of unsafe abortions. Most of these deaths occur in countries...

- A) with highly restrictive abortion laws
- B) where abortions are legal and highly acceptable

18. 51% of women having abortions are over age 25.

- A) True
- B) False

19. 6 in 10 women having abortions already have a child.

- A) True
- B) False

### Case Study

#### **Case 1: Abortion rights and/or wrongs**

Kate is a 17 years old patient, unmarried and 8 weeks pregnant. She is a rather remarkable girl in that she lives independently while still a senior in a high school. She tells you that she was an adoptee given back to foster care, and then abused in that system. She is now an emancipated minor who works 30 hours per week at a service industry job while also earning a 4.0 GPA in school, ranking in the top 10% of her class. She is college-bound, with a full-ride scholarship for pre-med undergraduate studies at a prestigious university.

Kate has absolutely no family support, and the former boyfriend who is the father of her unborn child/fetus simply disappeared upon learning of the pregnancy. Your patient is scared, uninsured, and says she doesn't want to be pregnant or a mom ("Perhaps someday, but not now!"). She rejects the adoption option, based on her own experience growing up, and requests abortion only, at this hospital where she has always received medical care."

#### **Questions:**

*Q1. Your faith-based health care system rejects elective abortion option. What ought to be done for Kate? And by whom?*

#### **Case 2: Prenatal diagnosis and abortion**

A 39 year-old Japanese woman, Naoko, who is in her 12th week pregnancy found her baby with Down's syndrome through the prenatal diagnosis. She was told by her doctor to decide if she still will give a birth or take an abortion. She has to make a decision by the 22nd week of her pregnancy when is the time limit she can

take an abortion. The doctor also explained that even though she gives a birth, the baby would have a high risk of heart disease and may not live long. Her husband is against to have the baby to hear that because he is afraid of raising a disabled-child and the discrimination by others to his other two children who are 7 and 4 years old that they have a disabled sibling, while Naomi does not think about abortion at all specially because she has experienced stillbirth 3 years before. Abortion with a reason of the baby's disability or disease is illegal in Japan, however it is allowed to reasons as financial status and physical condition of the mother. Overcoming the hard time of decision, they decided to have a baby eventually. Unfortunately the baby passed away 12 days after she was born for the heavy heart disease. However, Naoko felt more appreciation to her baby who was born by herself even though she had heavy disease.

### Questions:

- Q1. Do you agree with Naoko's decision? What will you do if you were in Naoko's situation?*
- Q2. What are your general impressions and the value of prenatal diagnosis in your culture and religion?*
- Q3. How is the prenatal diagnosis useful? Is prenatal diagnosis always necessary for expected mothers?*
- Q4. Should the hospital tell all the results including congenital disorders they find through the prenatal diagnosis to the parents?*
- Q5. Do you agree with abortion in general, or is it acceptable with certain reasons or not?*

### Useful resources:

- “Abortion and Ethics - Truth about Parenthood”( <http://www.youtube.com/watch?v=UUDjY73FyOU>)
- “Ethics of Abortion” ( <http://www.youtube.com/watch?v=GynEOMJatY4>)
- “Noam Chomsky and Peter Singer on Abortion” ( <http://www.youtube.com/watch?v=rzY0L2g1f64>)

## Test 4. Medical genetics and engineering

1. The specialty of [medicine](#) that involves the diagnosis and management of [hereditary disorders](#) is called:

- A) Medical engineering
- B) Medical genetics

- C) Eugenics
- D) Pathological heredity

2. In almost all organisms RNA is the genetic material, except for some viruses where it is DNA instead.

- A) True
- B) False

3. DNA works as a database or store of information needed to make an organism. It exists in the form of sequence of four nucleic acids:

- A) adenine
- B) cytosine
- C) guanine
- D) uracil
- E) thymine
- F) glycol

4. Every person has a different genetic sequence except for identical twins.

- A) True
- B) False

5. The DNA repair enzymes can repair most of mutations, others may escape repair and can result in abnormalities, such as cancer. What would happen if the mutation occurs in reproductive cells (germ)/zygote?

- A) The mother(carrier of mutated cells) may develop cancer
- B) The new offspring may carry the mutation
- C) The new offspring will die
- D) Both parents may have cancerous cells

6. Somatic mutations play a role in the development of most cancers. Only some mutations actually cause harm, others may make no harm.

- A) True
- B) False

7. What scientist and practitioner is known as "The Father of Genetic Medicine"?

- A) [Victor A. McKusick](#)

- B) Gregor Mendel
- C) Friedrich Miescher
- D) James Watson

8. Testing for a late-onset genetic disease, like Huntington's disease, before the person is sick is called:

- A) post-symptomatic screening
- B) presymptomatic screening
- C) genetic screening
- D) predictive genetic screening

9. Many genetic diseases (such as diabetes or cancer) are caused by the effects of multiple genes, and the relationship between the environment and genes. The state when particular gene is only one determinant for the development of a complex disorder is defined as:

- A) genetic inferiority
- B) genetic susceptibility
- C) genetic isolation
- D) genetic abnormality

10. Genetic engineering or genetic modification is the process of recombining DNA. Genetic engineering can be used for good causes. However, it can also potentially be misused. Please write few examples of negative use of genetic engineering that can potentially be harmful:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

11. Please choose the most controversial form of genetic engineering in medicine:

- A) production of cheap, easily stored vaccines against major childhood diseases
- B) the use of cloning technology to create organs for transplantation purposes

- C) large organ transfer from other species (xenotransplants)
- D) use of GMOs for environmental clean up in various parts of the world

12. Because genetic engineering is still considered a new technology, some doubts, fears, concerns have been raised.

A) *Extrinsic concerns* are based on doubts about the technology, its potentiality, newness and applicability to all life forms.

Examples of extrinsic ethical concerns: \_\_\_\_\_

\_\_\_\_\_

B) *Intrinsic concerns* are based on how people view life, nature, religion, their personal emotions and values.

Examples of intrinsic ethical concerns: \_\_\_\_\_

\_\_\_\_\_

13. During 1973-1976 there was a voluntary moratorium imposed by scientists on the practice of introducing foreign DNA into bacteria, following an International Conference in Asilomar, California. Please choose relevant concerns of scientists about environmental risks of GMOs:

- A) moving genes widely could have bad consequences
- B) it could cause the spreading in the microbial world of antibiotic resistance or toxin formation
- C) genetic determinants for tumor formation or human infectious diseases would be transferred to bacterial populations, which could then infect human beings

14. International transport of GMOs is regulated by:

- A) the Cartagena Protocol to the Convention on Biological Diversity
- B) Universal Declaration on Bioethics and Human Rights
- C) Declaration of Geneva
- D) Universal Declaration on the Human Genome and Human Rights

**Questions:**

- Q1. Can you get a genetic test in your country? If yes, for what diseases?
- Q2. Should genetic testing be performed when no treatment is available?



*Give reasons for your answers and discuss.*

*Q3. Should genetic testing be used for children? Why?*

*At what stage in life would you undergo genetic testing?*

*Q4. What do you think are some ethical, legal and social implications of genetic testing?*

*Q5. What does privacy mean to you? What things belong to your definition of personal space? Do you think that privacy is individually or culturally determined?*

*Q6. Does your school have your medical records? Who can access them? If not, where are your medical records located?*

*Q7. Do you have a right to know the results of your aunt's, cousin's, brother's, sister's, or parent's genetic test? Why or why not?*

*Q8. When do you think genetic screening of embryos is appropriate?*

### **Additional tasks:**

*Exercise 1.* Using the internet, find information about additional gender selection techniques. Go to [www.msnbc.msn.com/id/4051710/site/newsweek/](http://www.msnbc.msn.com/id/4051710/site/newsweek/) and read an article on gender selection. After reading the article, list the technologies used to determine gender and how the techniques differ from each other.

*Exercise 2.* Find a web site that provides a gender selection service. How much do they charge? Discuss the cost factor.

Useful resources:

- A short film about genetic engineering and ethics: *Human Genetic Engineering* (<http://www.youtube.com/watch?v=dKBfxoPnT7g>)
- *The Secret of Our Lives: The Human Genome Project* (<http://www.youtube.com/watch?v=nhoEvAY0ToM>)
- *A Decade of The Human Genome* (BBC Documentary) (<http://www.youtube.com/watch?v=Fgq-XoyorWY> )

## **5. Ethics and history of eugenics**

1. What is eugenics?

- A) The science of using controlled, selective breeding to improve hereditary qualities of the human race
- B) The specialty of [medicine](#) that involves the diagnosis and management of [hereditary disorders](#)
- C) The study of [genes](#), [heredity](#), and [genetic variation](#) in living [organisms](#)

2. The word “eugenics” from Greek means ...
- A) “good genes”
  - B) “good/well born”
  - C) “well conceived”
  - D) “good heritage”
3. Most ancient forms of eugenics included infanticide through exposure and execution as a form of phenotypic selection and were practiced in ...
- A) Ancient India
  - B) Ancient China
  - C) Ancient Greece and Rome
  - D) Ancient Egypt
4. [Plato](#) believed that human reproduction should be monitored and controlled by the state.
- A) True
  - B) False
5. The term "eugenics" was coined by ...
- A) James Watson
  - B) Sir Francis Galton
  - C) Gregor Mendel
  - D) Friedrich Miescher
6. Galton understood the mechanism of inheritance.
- A) True
  - B) False
7. Modern eugenics is based on eliminating genetic disorders. Several forms include:
- A) Eugenics of normalcy
  - B) Eugenics of beauty

- C) Eugenics of the genius
- D) Negative eugenics
- E) Positive eugenics

8. Please find the correct relation between the term and its definition/description:

	Policies and programs intended to reduce the occurrence of genetically determined disease.
	The achievement of systematic or planned genetic changes to improve individuals or their offspring. Selection of healthy genes, and use of gametes from people thought to be superior in intelligence or physical characters.
	Policies and programs intended to ensure that each individual has at least a minimum number of normal genes.
	The mass expulsion or extermination of people from a minority ethnic or religious group within a certain area and who, in many instances, had lived in harmony for generations prior to the outbreak of national hostilities.
	The systematic destruction of all or a significant part of a <a href="#">racial</a> , <a href="#">ethnic</a> , <a href="#">religious</a> or national group. Well-known examples of genocide include the <a href="#">Holocaust</a> , the <a href="#">Armenian genocide</a> and more recently the <a href="#">Rwandan genocide</a> .

- A) Eugenics of normalcy
- B) Positive eugenics
- C) Ethnic cleansing
- D) Genocide
- E) Negative eugenics

9. The idea of eugenics became extremely popular amongst scientists and eugenics movement reached its highest degree in:

- A) Late 19<sup>th</sup> century
- B) 1920s
- C) 1950s
- D) 1940s

10. The eugenic idea has been abused in the past; for example, by the Nazis in the 1930s and early 1940s.

- A) True
- B) False

11. Some countries have implemented social policies to promote eugenic population selection even today, including immigration policies and reproductive technology.

- A) True
- B) False

12. In United States of America sterilization laws stayed on books in some states until late 1970s.

- A) True
- B) False

13. In Sweden the eugenics program continued until 1975.

- A) True
- B) False

14. Eugenics is often deemed as [pseudoscience](#) because what is defined as a genetic improvement or a desired trait is often a cultural choice rather than a matter that can be determined through objective scientific inquiry.

- A) True
- B) False

15. The practice of negative racial aspects of eugenics, after World War II, fell within the definition of the new international crime of genocide, set out in the [Convention on the Prevention and Punishment of the Crime of Genocide](#).

- A) True
- B) False

***Additional tasks:***

Please watch the documentary “History of Eugenics” and answer the questions:

*Q1. What is a bad gene? What is a good gene? Is there any such thing?*

*Q2. How different are other person’s perceptions of bad and good? How much desire could parents have for certain characters, e.g. eye colour, height, obesity of their children?*

*Q3. What did the Nazi eugenics policy in Germany in the 1930s-1945 lead to?*

*Q4. Does anyone want to have sick children? How much should we try to have children without disease?*

*Q5. How can we apply eugenics today in a positive way? Is it possible? Would you like to be a eugenicist?*

Useful resources:

- “Eugenics. Science in History”  
(<http://www.youtube.com/watch?v=h-CI5LMDgCc>)
- “History of Eugenics”  
([https://en.wikipedia.org/wiki/History\\_of\\_eugenics](https://en.wikipedia.org/wiki/History_of_eugenics))

## **6. Transplantation of organs and organ donation**

1. Many different parts of your body can be donated to be used in treatment of others, or for research that could help improve medical processes in future. Some parts of your body can be donated while you are alive and some only after you have died. Please fill in the table by putting the group organs into a relevant column:

Living donors	Deceased donors

--	--

- A) Blood
- B) Brain
- C) Liver lobes
- D) Kidneys
- E) Stem cells
- F) Tissues, including corneas, skin, bone
- G) Eggs and sperm
- H) Organs, including heart, lungs, liver, pancreas and small bowel
- I) Organs, including the large bowel, bladder and prostate

2. A person who donates an organ is called a ...

- A) Recipient
- B) Intermediary
- C) Donor
- D) Sponsor

3. A person who receives an organ is called a ...

- A) Recipient
- B) Intermediary
- C) Donor
- D) Sponsor

4. In Asia different cultural and religious backgrounds which influence social acceptance of transplant technology draw a different picture. In some countries the organ transplantation law did not increase the organ retrieval rate but actually decreased the number of transplantation cases. For example, in ....

- A) Japan
- B) Singapore
- C) India
- D) Korea

5. Unlike most Western countries, in many Asian countries there is an age limitation for organ donation after death.

- A) True
- B) False

6. In order to save other children lives who need to receive an organ, in many countries the law allows parents to get permission for organ donation based on the best interest of their beloved ones. But there is one country that doesn't grant parents such right:

- A) Saudi Arabia
- B) India
- C) Turkey
- D) Japan
- E) Korea

7. In these countries oral consent confirmed by one of the family members in writing is accepted (instead of organ donor card and written consent of the diseased):

- A) India
- B) Turkey
- C) Singapore
- D) Korea
- E) Iran

8. In Saudi Arabia (Regulations of organ transplantation, 1994), and Malaysia, living organ donation is limited to genetically relatives.

- A) True
- B) False

9. Only in \_\_\_\_\_ (Organ Donation Act of 1991), there is an international sharing of human organs and tissues. Sharing of human organs or tissues shall be made only through exchange programs duly approved by the Department of Health, provided, that foreign organ or tissue bank storage facilities and similar establishments grant reciprocal rights to their \_\_\_\_\_ counterparts to draw organs or tissues at any time.

- A) Turkey
- B) the Philippines

- C) Thailand
- D) Spain

10. In many countries the law requires establishment of a “Brain death determination committee” to confirm the diagnosis of brain death. The members of the diagnosis committee should be a member of transplant team.

- A) True
- B) False

11. What is “brain death”?

- A) no electrical activity in the brain
- B) the irreversible loss of all functions of the brain
- C) no blood flow to the brain
- D) no response to stimulation

12. Match each of the following values with one of the descriptions further down the page:

**“Ethical values in donation”**

	is a willingness to give freely to others without expecting to get something in return. This value is shown when someone donates in the expectation that they will be helping someone else without benefit to themselves.
	is about helping as many people as possible, while reducing harm as much as possible. One example of this could be the state working to reduce the number of people needing a transplant to survive while also making efforts to increase the number of people who are signed up to the Organ Donor Register. It can also be about protecting vulnerable people from being exploited and pressurised into donating despite risks to their own health.
	is concerned with a fair distribution of benefits and burdens between people and societies. For example, having a system of organ allocation that is based on who needs it the most and is the most suitable to receive an organ, not who has the most money or thinks they are more important.
	is a special status, value or worth in some things that we feel we should treat with respect. For example, some

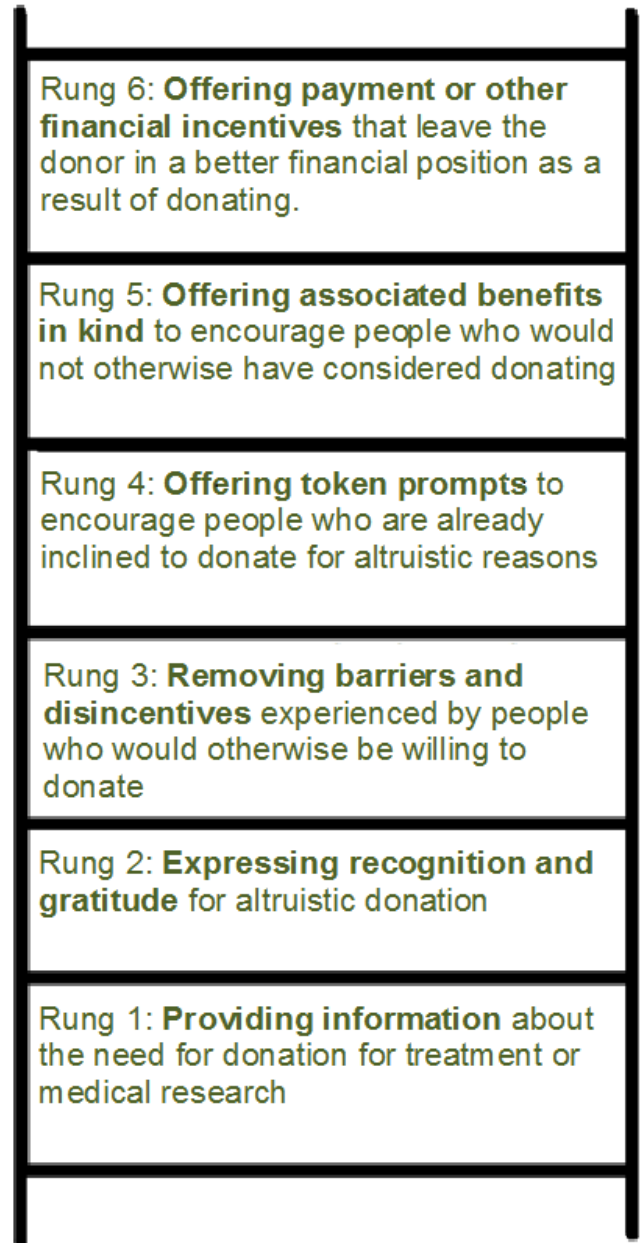
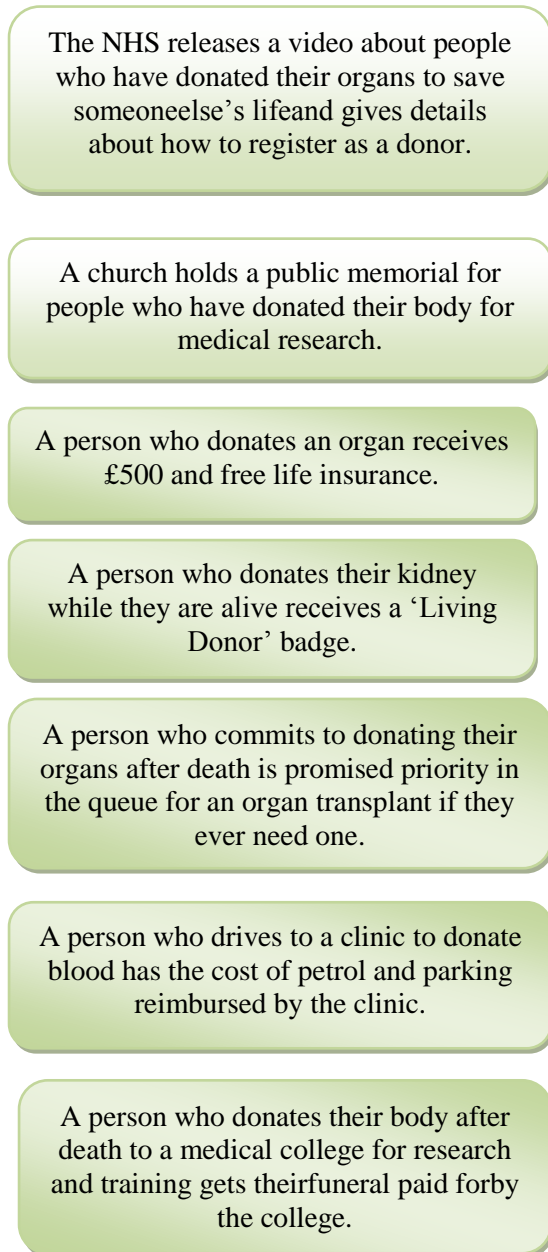


	people feel that removing certain or any organs from someone who is dead violates the dignity of their body.
	is a sense of mutual obligations and mutual support within a community. It involves sharing risks and working together to protect the vulnerable. An example of this could be a person donating blood to make sure that there is a big enough supply to help anyone who might need it.
	is a relationship between people where something is exchanged in a way that gives benefit to both of the people or groups involved in the exchange.
	is the control and freedom people have to make their own decisions about what happens to them and their bodies. For example, everybody has the opportunity to join the Organ Donor Register to express a wish to donate organs when they die, but this is a personal choice and some people may not want to do so.

- A) Dignity
- B) Autonomy
- C) Solidarity
- D) Reciprocity
- E) Altruism
- F) Justice
- G) Maximizing health and welfare

13. Different countries have different systems for facilitating donation. Below are some examples of interventions to encourage donors, some of which are legal in the UK today, others are not. Can you place them along the intervention ladder and explain why you think that is where they belong?

## “Intervention ladder”



### Case 1: Artificial breathing to the patient after brain death

A man in his 50s who had a traffic accident was taken to the ER with an injury to his head, in a deep coma without self breathing. Emergency surgery on his head and brain protection did not lead to any progress. While keeping the intensive care, the medical team discussed with his family for the care plan and then he was given “clinical brain death diagnosis”. As a result, the patient was diagnosed in a brain

death condition. There is no possibility that the patient will recover from the brain death condition. Since the patient did not wish to be a donor for organ transplants, his family required the hospital to stop the life-saving measure. A several medical staff, however, claimed to continue the artificial breathing.

### **Questions:**

*Q1. What would be the next step of treatment in your country?*

*Q2. Do you think brain death is human death? Why?*

*Q3. What will you do if you are a family of this patient?*

### **Case 2: Organ donor status on Facebook**

In April 2012, Facebook announced that users would have the option to add ‘organ donor’ as a status on their Facebook ‘timeline’. Facebook’s Chief Executive Mark Zuckerberg, said: “What we hope will happen is that by just having this simple tool, we think that people can really help spread awareness of organ donation and that they want to participate in this to their friends... That can be a big part of helping solve the crisis that’s out there.”

Jamal is 16 years old and has a large network of friends on Facebook which he often shares personal news and information with. He discovers the option to add ‘organ donor’ status to his timeline and sees that some of his friends who have done this have had many ‘likes’ and positive comments on their profiles. He wonders whether he should do the same, and decides to search online to find out more about why Facebook made this option available. He finds a video of Mark Zuckerberg’s announcement, and reads the following comments from viewers:

- *“It’s a known fact that if you’re listed as an organ donor doctors won’t work as hard to save you...they would rather take your organs because they can treat more people with them.”*
- *“Next step - bidding for a kidney on Ebay.”*
- *“I was watching a documentary the other day, this guy, a lifelong heavy drinker, was given a liver transplant. I do not want to see my organs donated to people who got to their condition by self infliction.”*
- *“My mum is waiting for a pair of lungs as she has had pulmonary fibrosis for 18 years. It would mean the world to me for her to get a transplant. When I die, I will donate my organs.”*
- *“I want to be buried whole, not disfigured by operations. Besides, who has the right to decide when you are actually dead so they can remove your organs?”*

### **Questions:**

*Q1. How should Jamal decide whether or not to change his status to 'Organ donor' on Facebook? What factors should he think about to help him make his decision?*

*Q2. Where would you place Facebook making available the option to change your profile to organ donor on the Intervention Ladder?*

*Q3. What kind of values do you think might motivate donors to come forward on Facebook?*

Useful resources:

- “*Donation and Transplantation: How does it work?*”  
(<http://www.youtube.com/watch?v=HuKx2a5HkIM>)
- “*Recycling the Body: Organ Donation and Ethics*”  
(<http://www.youtube.com/watch?v=ogMAfwqzzxk>)

## **Test 7. Bioethical issues arising in psychiatric care**

1. The etymology of the word "psychiatry" (from the Greek. "Psyche"-soul, "iatros"- Doctor) adequately reflects the main objective of the professional activities of the psychiatrist:

- A) treatment of mental disorders
- B) competent and skilled assistance primarily mentally sick people
- C) provision of competent and skilled help to every human in need of such assistance
- D) treatment only of those people who are recognized as mentally ill and dangerous to themselves and others

2. Attitude to mad as to sick people begins to be established almost at the same time in France and in England-at the end of the XVIII century. Chapter division of the credit for that "crazy been raised to the dignity of patients" belongs to:

- A) Johann Christian Reil
- B) Philippe Pinel
- C) Thomas Willis

3. *Paternalistic ethical doctrine* of mental health care postulates following principles:

- A) promoting and restoring the health of the patient
- B) providing good care
- C) respecting the patient's right to self-determination and information
- D) assuming responsibility
- E) involving patients in the planning and implementation of their care

4. 50 years later, the English physician John Connolly actually deepens ethical dimension of Pinel's medical method and proposes to delete any restraint against the insane. The new proposed system was called:

- A) "No restraint"
- B) "No restrictions"
- C) "No paternalism"
- D) "No straitjacket"

5. Paternalistic model of mental health care prevailed worldwide until the mid XX century. Harbinger of the crisis of medical paternalism in psychiatry in Western countries was the crisis of psychiatric hospitals, which began in the 50s of XX century. In 1955 the WHO Expert Committee called for the need to:

- A) use of psychotropic substances for the treatment of severe psychiatric patients
- B) expand the treatment of mentally ill without being isolated from society
- C) increase in the number of psychiatric hospitals to isolate them from society

6. The "Hawaiian Declaration ", adopted in 1977 and revised in 1983 by the World Psychiatric Association (WPA), defines the minimum ethical standards in the work of each psychiatrist. The first major ethical and legal principle of protection of mentally ill persons is:

- A) principle of voluntary use of medical measures
- B) principle of humanity and respect for the dignity of the human person
- C) principle of informed consent to treatment

7. "Declaration of Geneva" WMA (1948) requires every doctor to avoid any discrimination of patients. Discrimination in the provision of mental patients they care may be:

- A) mainly cultural
- B) mainly moral
- C) mainly social
- D) mainly economic

8. Modern approach to the involuntary treatment of the mentally ill was designated in 1954 by the WHO Expert Committee. According to this approach, a flagrant violation of medical ethics is:

- A) involuntary use of medical measures
- B) involuntary hospitalization of mentally ill
- C) obtaining the consent of the competent patients

9. What is a mental illness?

- A) A state of low mood and aversion to activity.
- B) A disorder of thought or mood that significantly impairs judgment, behavior, capacity to recognize reality or ability to cope with the ordinary demands of life.
- C) A [mental disorder](#) often characterized by abnormal social behavior and failure to recognize what is [real](#).

10. You cannot subject someone to involuntary hospitalization based solely on traumatic brain injury.

- A) True
- B) False

11. There are some doctors who oppose involuntary treatment. They believe that patients have a right to kill themselves, a right to go about with untreated medical conditions even if it's life-threatening and if the patient is mentally compromised.

- A) True
- B) False

12. In Art. 29 of the Russian Federation Law "On Psychiatric Care" determined necessary and sufficient conditions that allow hospitalization of certain categories of mental patients without their consent. Please choose these conditions:

- A) "severe mental disorders"
- B) when the examination and treatment of the patient is possible only in a hospital
- C) patient presents an imminent danger to themselves or (and) others;
- D) the patient is helpless, that is unable to meet their own basic necessities of life
- E) the patient's mental condition is such that leaving it without psychiatric assistance to cause substantial harm to his health
- F) when the patients is in the state of severe depression
- G) when the patient doesn't have close relatives to sign consent form on his behalf

13. In Russia, the law does not require a psychiatrist in obtaining consent to treatment to inform the patient of his diagnosis.

- A) True
- B) False

14. All mentally ill people have the right to refuse medical intervention (the principle of voluntarism in health care).

- A) True
- B) False

15. "Least restrictive alternative" norm in psychiatry is:

- A) when application of measures of isolation and restraint is permissible only if the "ethical monitoring ", continually confirming that there is simply no reasonable alternative in this patient's condition
- B) guarantee of the civil rights of severely ill patients
- C) when medical staff is not allowed to impose any restraint on patient
- D) when forbidden to compel the patient to wear a straitjacket

16. Damage and harm posed by the psychiatric practice, we can reduce to the following types:

- A) damage that accompanies the use of invasive methods of investigation and treatments with side effects
- B) coercion

- C) social restrictions and prohibitions
- D) alienation
- E) strictly non-pecuniary damage
- F) material damage
- G) violation of the anatomical integrity and physiological function of organs

17. There is an ethical basis for involuntary treatment based on *the principle of beneficence*: sometimes patients are no longer able to act in their own best interests, we have to act for them.

- A) True
- B) False

**Case: Involuntary hospitalization. What would you do?**

A 65-year-old woman is brought to the ER around 10 pm in January by Macon Police after being found walking the streets in her nightwear singing hymns. Record indicates she has insulin dependent diabetes mellitus. Physical examination was difficult to perform because she is refusing all medical care, but she appears very thin and her foot is dark in colour. She insists on leaving so that she can bring the “word of the Lord” to the people.

**Questions:**

*Q1. What would you do?*

*Q2. How should you act according to the code of ethics?*

*Q3. How should you act according to the law?*

*Q4. What is the best to for a patient in this situation? Does she reserve a right to refuse hospitalization and treatment?*

**Test 8. Clinical study and trials involving human subjects**

1. *Clinical study* is a research study using \_\_\_\_\_ subjects to evaluate the effect of interventions or exposures on biomedical or health-related outcomes.

- A) human
- B) robot
- C) bacteria
- D) philosophic



2. The main international document that sets out principles of use of human subjects in medical research is:

- A) "Declaration of Geneva" adopted by the World Medical Association in 1948
- B) The World Medical Association Declaration of Helsinki adopted in 1964
- C) The "Hawaiian Declaration" adopted by the World Psychiatric Association in 1977

3. According to international documentation on ethical principle of use of human subjects in medical research there are groups of participants with particular needs and who need special attention. They are:

- A) economically and mentally disadvantaged
- B) those who will not benefit personally from the research
- C) those who may be subject to giving consent under duress
- D) those who cannot give or refuse consent for themselves
- E) women who become pregnant during the study
- F) those for whom the research is combined with care
- G) women of childbearing age

4. Medical progress is based on research which ultimately must rest in part on experimentation involving human subjects.

- A) True
- B) False

5. Primary purposes of medical research involving human subjects is (write 2 or 3 you can think of):

- A) \_\_\_\_\_
- B) \_\_\_\_\_
- C) \_\_\_\_\_

6. In medical research on human subjects, considerations related to the well-being of the human subject should take precedence over the interests of science and society.

- A) True
- B) False

7. Even the best proven prophylactic, diagnostic, and therapeutic methods must continuously be challenged through research for their effectiveness, efficiency, accessibility and quality.

- A) True
- B) False

8. No national ethical, legal or regulatory requirement should be allowed to reduce or eliminate any of the protections for human subjects set forth in the Declaration of Helsinki.

- A) True
- B) False

9. The factors (or reasons) that prevent a person from participating in a clinical study are defined as ...

- A) exclusion criteria
- B) exclusion thoughts
- C) unique criteria
- D) unique thoughts

10. Who controls the clinical studies?

- A) national authorities
- B) international authorities
- C) national and international authorities
- D) no one

11. A substance that does not contain active ingredients and is made to be physically indistinguishable (that is, it looks and tastes identical) from the actual drug being studied.

- A) fake substance
- B) mistake
- C) placebo
- D) substitute

12. Physicians should abstain from engaging in research projects involving human subjects unless they are confident that the risks involved have been adequately assessed and can be satisfactorily managed.

- A) True
- B) False

13. Participants in clinical research have no right to...

- A) to informed consent
- B) shared decision-making
- C) privacy for research participants
- D) sell results of research to third person

14. Most clinical trials seek patients who have a ...

- A) specific disease
- B) money
- C) wisdom
- D) health

15. Clinical trials involving new drugs are commonly classified into ...

- A) two phases
- B) three phases
- C) four phases
- D) five phases

16. Additional ethical concerns are present when conducting clinical trials on ...

- A) children
- B) politicians
- C) Americans
- D) doctors

17. For safety reasons, many clinical trials of drugs are designed to exclude ...

- A) women of childbearing age
- B) women of childbearing age, pregnant women
- C) women of childbearing age, pregnant women, women who became pregnant during the study
- D) women of childbearing age, pregnant women, women who became pregnant during the study and in some cases, the male partners of these women

18. At the conclusion of the study, every patient entered into the study should be assured of access to the best proven prophylactic, diagnostic and therapeutic methods identified by the study.

- A) True
- B) False

### **Test 9. Animal rights. Use of animals in medical research**

1. What are animal rights?

- A) the idea that some, or all, nonhuman [animals](#) are entitled to the possession of their own lives, and that their most basic interests;
- B) the idea that their most basic interests – such as an interest in not [suffering](#) – should be afforded the same consideration as the similar interests of human beings;
- C) the idea that some, or all, nonhuman [animals](#) are entitled to the possession of their own lives, and that their most basic interests – such as an interest in not [suffering](#) – should be afforded the same consideration as the similar interests of human beings.

2. Animals who feel pain are called:

- A) sentient animals
- B) sensing animals
- C) vulnerable animals
- D) sensitive animals

3. In practice one important criteria we use in judging the use of animals is:

- A) how many animals are used
- B) how much pain is caused
- C) how animals react to experiments

4. We can think of ethical factors within an organism itself (intrinsic factors), and others that are external to it (external factors):

Intrinsic Ethical Factors	Extrinsic Ethical Factors
-	-
-	-
-	-
-	-
-	-

Pain; Self-awareness; Human sensitivity to animal suffering; Human Necessity / Desire; Value of being alive; What is natural; Brutality in Humans; Conscious of others; Ability to plan for the future; Effect on other animals; Religious status of animals.

5. From a moral point of view, some animal experiments are done with the hope of directly saving human life in \_\_\_\_\_. On the other hand, luxury products such as \_\_\_\_\_ can be said not to be necessary.

- A) cosmetic testing
- B) medical research

6. There is a debate about self awareness, which would be necessary for animals to express autonomy, and about whether they are capable of thinking, or a certain degree of perception and cognition. These concerns are one reason why researchers try to choose the animals \_\_\_\_\_ on the evolutionary scale for experiments and product testing.

- A) “higher”
- B) “average”
- C) “lower”

7. A vegetarian is a person who does not:

- A) eat milk products
- B) eat meat products
- C) eat any animals or animal products (milk, eggs, etc.) or use animal products (e.g. leather)
- D) use animal products (e.g. leather, fur)

8. One area of particular concern is whether farm animals should be kept in a field, a caged box, or a factory farm. It has been illegal to use \_\_\_\_\_ in Switzerland for chickens since 1992.

- A) boxes
- B) fields
- C) factory farms
- D) “battery cages”

9. Examples of improper animal use in production include:

- A) use of bovine growth hormone in cows
- B) use of animals in product testing
- C) use of animals as material for production (use of dogs in lipstick production)

10. These animals are most commonly used in medical research (69% among other animals used, which equals to 2 million individuals used in research in 2006):

- A) Dogs
- B) Birds
- C) Monkeys
- D) Fish
- E) Rats
- F) Mice

11. Which of the following animals can breed quickly and are used in characteristics heredity research?

- A) Dogs
- B) Birds
- C) Monkeys
- D) Fish
- E) Rats
- F) Mice

### **Test 10. Medical secrecy and confidentiality**

1. Medical secrecy is one of core principles of medical ethics. According to Hippocratic Oath, medical secrecy is:

- A) information about patient`s diagnosis and course of treatment;
- B) personal information obtained during the course of treatment;
- C) any kind of information, including personal information, obtained during the course of treatment.

2. The term “medical confidentiality” is commonly applied to:

- A) conversations between doctors and his colleagues;
- B) conversations between doctors and a patients;
- C) conversations between patients and third persons conversations between doctors and a patients;
- D) conversations between doctors and a patients during the course of providing medical care.

3. In contemporary medicine medical secrecy is defined and broadened to the following concept:

- A) a ban of HCP (healthcare personnel) on disclosure of information about the patient's health status and diagnosis to third parties;
- B) a ban of HCP on disclosure of examination results, the fact of seeking medical help and information about his personal life, obtained by examination and treatment;

C) a ban of HCP on disclosure of information about the patient's health status and diagnosis, examination results, the fact of seeking medical help and information about his personal life, obtained by examination and treatment to third parties.

4. According to Article 13 “On Confidentiality” of Federal Law “*On the basis of health protection in the Russian Federation*” of November 21, 2011 N 323-FZ, it is not allowed to disclose information constituting **medical secrecy**, except cases when:

- A) there is written consent of the citizen or his legal representative;
- B) there is threat of the spread of infectious diseases, mass poisonings and injuries;
- C) for the purpose of medical examination and treatment of the citizen, who as a result of the condition is not able to express their will;
- D) in all of the cases mentioned above.

5. According to Russian Federal Law, disclosure of information constituting a medical secret, including the death of a person, is not allowed.

- A) True
- B) False

6. Please complete a table using the information given below. Try to match the **country** and **legal documents** regulating medical secrecy and confidentiality established in each country, and **the body** governing healthcare system:

Russia		
India		
United Kingdom		

- Federal Law “*On the basis of health protection in the Russian Federation*” of November 21, 2011;
- Article 13. “The Confidentiality”;



- Medical Council of India (MCI);
- Data Protection Act of 1997;
- Confidentiality clause in NHS employee contract;
- Medical Council of India Code of Ethics Regulations;
- General Medical Council (GMC);
- Ministry of Healthcare of Russian Federation;
- National Healthcare System (NHS).

7. According to GMC requirements, it is allowed to publish individual patient's histories, photos and recordings without patient's written consent, if they are anonymous.

- A) True
- B) False

8. According to Medical Termination of Pregnancy Act, 1971 of India, medical practitioners are only allowed to disclose information of those who have terminated a pregnancy to:

- A) governor of the State;
- B) male partners of women who terminated the pregnancy;
- C) family members of women who terminated the pregnancy;
- D) Chief Medical Officer of the State;

9. In cases where a patient is brought in with gunshot or knife wounds, you have a duty to inform the police immediately.

- A) True
- B) False

10. Case Study. Please discuss the case and answer the questions in pairs or in a group:

Your 36-year-old patient has just tested positive for HIV. He asks that you not inform his wife of the results and claims he is not ready to tell her yet.

- What is your role legally?
- What would you say to your patient?

## **Case 1: Conversations between medical professionals**

A resident in his 5th year was discussing a difficult clinical state and diagnosis of one patient with his interns in the elevator of the hospital. They kept discussing when they were walking in the hall way and in the hospital cafeteria during their lunch. Also, the resident talked about the patient with his wife who is also a doctor, at his home. In these conversations, the patient's real name appeared in spots.

### **Questions:**

*Q1. What is medical confidentiality?*

*Q2. Which places can the medical team discuss cases?*

*Q3. Can a health care professional discuss difficult cases with their spouse?*

## **Case 2: Information disclosure to the relative**

A certain country's Muscular Dystrophy Association is considering their policy on the propriety of the preimplantation genetic diagnosis of severe dystrophy. Besides, they are considering the scope of the confidentiality when the mother is diagnosed as a carrier of severe dystrophy. Does only the mother have the right to control the information because it is her personal information, or do her close relatives also have a right to share the information based on the "necessity of knowing" to consider their family plan because the genetic information is shared by relatives?

### **Questions:**

*Q1. Give some examples of rule or law related to privacy and confidentiality in medicine in your country or hospital.*

*Q2. If a boy of a couple is suffered from the severe dystrophy and his mother is diagnosed as an asymptomatic carrier by the genetic test, do sisters of her have right to know that fact?*

*Q3. What should be done if the mother did not want to disclosure this information even to her sister?*

## **Test 11. Ethics of Cloning**

1. Cloning is:

A) the creation of new life by other than the natural means available to an [organism](#);

- B) the process of asexually producing a group of cells (clones), all genetically identical to the original ancestor;
- C) the branch of [translational research](#) in [tissue engineering](#) and [molecular biology](#) which deals with the "process of replacing, engineering or regenerating human cells, tissues or organs to restore or establish normal function".

2. Cloning is more commonly known as the production of a cell or an organism from a somatic cell of an organism with different nuclear genomic (genetic) characters - without fertilization.

- A) True
- B) False

3. A clone is a collection of cells or organisms that are genetically identical. Some vegetables are made this way, like asparagus, or flowers like orchids.

- A) True
- B) False

4. Human reproductive cloning is:

- A) the deliberate production of genetically identical individuals;
- B) the creation of new life by other than the natural means available to an [organism](#);
- C) the process of asexually producing a group of cells (clones), all genetically identical to the original ancestor.

5. Therapeutic cloning is:

- A) the process of asexually producing a group of cells (clones), all genetically identical to the original ancestor;
- B) the cloning of embryos containing DNA from an individual's own cell to generate a source of embryonic stem (ES) cell-progenitor cells that can differentiate into the different cell types of the body;
- C) the branch of [translational research](#) in [tissue engineering](#) and [molecular biology](#) which deals with the "process of replacing, engineering or regenerating human cells, tissues or organs to restore or establish normal function".

6. Advocates of \_\_\_\_\_ believe the practice could provide genetically identical cells for \_\_\_\_\_, and tissues and organs for \_\_\_\_\_.

- A) Human therapeutic cloning
- B) Regenerative medicine
- C) Transplantation

7. The aim of therapeutic cloning is to produce healthy replacement tissue that would be readily available. Since it is from the same body it is immunocompatible so that the recipients would not have to take immunosuppressant drugs for the rest of their lives, as they do if they receive an organ from another person.

- A) True
- B) False

8. Ethicists have speculated on difficulties that might arise in a world where human clones exist. For example:

- A) \_\_\_\_\_
- B) \_\_\_\_\_
- C) \_\_\_\_\_

9. Perspectives on \_\_\_\_\_ cloning are theoretical, as \_\_\_\_\_ therapeutic and reproductive cloning are not commercially used. \_\_\_\_\_ are currently cloned in laboratories and in livestock production.

- A) Human
- B) Animals

10. Exercise on Cloning & Stem Cell Research:

Please sort the cards into Claims and Counterparts, then into Facts and Opinions.

- On your own paper, make a list of evidence that you would need before you could accept the “facts” statements as justifiable.
- Are there any flaws in the arguments given?

- How do the bias and interests of each person influence the position they have taken?
- Which opinion would you prefer to take and why?

<p>Whakapapa, the inherited and traceable common history which establishes mana and identity, would be threatened by the use of anonymous sperm or eggs.</p>	<p>In New Zealand, there is no practice anticipated which would threaten identity by producing inherited traits.</p> <p>- Independent Bioethics Council.</p>
<p>Research with stem cells will not lead straight to medical benefits such as a new cure for a disease or condition.</p> <p>-Independent Bioethics Council</p>	<p>Amendment 2, also known as the Missouri Stem Cell Research and Cures Initiative, if passed by voters, would protect human embryonic stem cell research in the state from legislative action. According to the proposed amendment, but not stated in the ballot question, human embryos used for stem cell research would come from fertilization clinics or by artificial creation of embryos using a process known as somatic cell nuclear transfer (SCNT). During SCNT, the nucleus of a non-reproductive body cell is inserted into a woman's egg cell after its own nucleus is removed. The cells eventually fuse and form an embryo, without male fertilization having taken place.</p>
<p>Embryos may be produced simply for the purposes of cloning for medical benefits.</p>	<p>In most countries where there are controls on the use of human embryos there is a ban on cloning human beings. I.e. producing children who are genetic copies of other people.</p>
<p>The cruelest deception of all is the deception of miracle cures. Scientists are using people who have diseases and disabilities and giving them false hopes.</p>	<p>Some people consider that using human embryo stem cells for research is the equivalent of killing a human life because it destroys the embryo.</p>
<p>A mother who wants a cure for her daughter's Type I diabetes- "My feeling is there are embryos out there which have already been produced with the effort to benefit infertile</p>	<p>Embryonic stem cells are derived from the inner cell mass of an early embryo, fetuses from pregnancy terminations. Because they can divide and develop into each of the approximate</p>

<p>couples that are being discarded - they are being thrown away,” she said. “There is good reason to believe these embryos could provide cures for a lot of people, including children like my daughter.</p>	<p>200 adult cell types in the human body, embryonic stem cells could provide regenerative medicine for now incurable diseases, some scientists believe, and replace damaged tissue.</p>
<p>The potential to relieve disease is a high moral calling, We have a moral responsibility to act in the best of our knowledge and within the limits of our resources to alleviate human suffering.</p>	<p>Another view of the moral question says that growing an embryo in a laboratory to generate a line of stem cells is far different from an embryo in a womb, said the Rev. Bob Towner, pastor of Christ Episcopal Church.</p>
<p>The human body fights against alien tissue and rejects it. This is the main problem for cell, tissue and organ transplants. Using donor cells that are genetically the same as those of the recipient is much more effective.</p>	<p>Bone marrow cells have limited ability to develop into other types of cells or tissues. They can produce all the different kinds of blood cells and may be able to replace damaged tissue. If more research can be done to find out what determines that a cell is of a certain kind, then it might be unnecessary to use embryonic stem cells.</p>

### Questions:

*Q1. Is there a difference between identical twins made in nature or ones made by human cloning?*

*Q2. Such clones could be born at different times and/or from different mothers? Are they still twins?*

*Q3. Should teachers be able to clone good students, or parents clone good children? Discuss the ethical issues of cloning.*

### Test 12. Placebo

1. From Latin the word *placebo* means:

- A) “I shall help”
- B) “I shall please”
- C) “I shall cure”

2. What is placebo?

- A) a simulation of an active therapy within a psychosocial context;
- B) a type of [antimicrobial](#) used in the [treatment](#) and [prevention](#) of bacterial [infection](#);
- C) a drug used for the treatment of [major depressive disorder](#) and other conditions;
- D) a drug that induces [tranquility](#) in an individual.

3. What is placebo usually given (to a patient) for?

- A) to pacify;
- B) to cure mental disorders and depressive syndrome;
- C) to reinforce expectation;
- D) to trigger self-healing in a clinical setting, or as a control in clinical research.

4. Placebo response/effect is:

- A) the cure of the disease as a result of a placebo;
- B) the change in a symptom or condition of that individual that occurs as a result of a placebo;
- C) patient`s allergic reaction to a placebo.

5. Expectation plays a potent role in the placebo effect. The more a person believes they are going to benefit from a treatment, the more likely it is that they will experience a benefit.

- A) True
- B) False

6. Efforts to take advantage of the placebo effect in clinical practice also raise ethical concerns relating to compatibility with evidence-based medicine and informed consent.

- A) True
- B) False

7. The nocebo effect is:

- A) the change in a symptom or condition of that individual that occurs as a result of a placebo;
- B) the tendency opposite to the placebo effect, but working by similar psychological mechanisms, of clinical communication and interventions to inadvertently cause negative health outcomes;
- C) the occurrence of side-effects due to use of placebo.

8. Use of \_\_\_\_\_ in human subjects research highlighted the problem of deception in research on the \_\_\_\_\_ and the issue of whether and how efforts to promote \_\_\_\_\_

In clinical practice can be undertaken without deception, consistent with informed consent.

- A) Placebo responses
- B) Placebo effect
- C) Deception

9. Find the right correlation between the concept and its definitions:

Authorized deception approach	
Research that deploys deception	

- A) Subjects are misled about the purpose of study (to understand the placebo effect) and specific procedures (the use of placebo interventions deceptively described, for example, as a powerful pain-relieving agent);
- B) Prospective subjects are informed that deception will be employed and that the nature of the deception will be revealed when study participation has been completed;
- C) Subjects are not informed in advance about the use of deception but are “debriefed” at the conclusion of research participation.



### Test 13. Hippocratic Oath: ethical content

1. Hippocratic Oath is one of the most widely known of Greek medical texts. It requires a new physician to swear upon a number of healing gods that he will uphold a number of professional ethical standards. Classical scholar Ludwig Edelstein proposed that the oath was written by:

- A) [Pythagoreans](#)
- B) Aristotel
- C) Hippocrates
- D) Ionians

2. The Oath was written in Ionic Greek in \_\_\_\_\_ and is usually included in the [Hippocratic Corpus](#).

- A) late 5<sup>th</sup> century BC
- B) early 5<sup>th</sup> century BC
- C) late 4<sup>th</sup> century BC
- D) late 3<sup>rd</sup> century BC

3. The second law of medical ethics written in Hippocratic Oath directly opposes several controversial medical procedures, thus legalized in some countries nowadays. They are:

- A) organ donation
- B) abortion
- C) assisted suicide
- D) experiments on humans
- E) euthanasia
- F) female infanticide

4. Does Hippocratic Oath include clear guidance on how a doctor should build personal relationship with a patient? Are there any prohibitions or taboos given?

- A) Yes, there are. Prohibited the onset of sexual relations with a patient.
- A) No, there are no clear restrictions mentioned.
- B) Yes, the doctor should not disclose any personal information about a patient.
- C) Yes, the doctor should act in the interests of a patient.

5. *Primum non nocere* is a [Latin](#) phrase and core principle of medical ethics that means:

- A) "first, do not kill"
- B) "first, do no harm"
- C) "first, do not hurt"
- D) "first, do not misuse your skill"

6. **Non-maleficence** is one of the principal precepts of [bioethics](#), which states that:

- A) "it may be better to call in my colleagues when the skills of another are needed for a patient's recovery";
- B) "I will prevent disease whenever I can, for prevention is preferable to cure";
- C) "given an existing problem, it may be better not to do something, or even to do nothing, than to risk causing more harm than good";
- D) "I will apply, for the benefit of the sick, all measures which are required, avoiding those twin traps".

7. The sense of a promise stated in original text of the oath "*I will not use the knife, not even on sufferers from stone, but will withdraw in favor of such men as are engaged in this work*" in summary is as follows:

- A) Not to assist [suicide](#) or [abortion](#);
- B) To leave surgery to surgeons;
- C) Not to harm, especially not to seduce patients;
- D) To maintain [confidentiality](#) and never to gossip.

8. The oath has been modified multiple times. One of the most significant revisions was first drafted in \_\_\_\_\_ by the World Medical Association, called the Declaration of Geneva.

- A) Early 19<sup>th</sup> century
- B) In 1914
- C) In 1948
- D) In 1964

9. The Declaration of Geneva (Physician's Oath) is a declaration of a [physician's](#) dedication to the [humanitarian](#) goals of [medicine](#), a declaration that was especially important in view of:

- A) consequences of World War II
- B) postwar humanitarian crisis in Europe
- C) treatment of WWII veterans
- D) development of military medicine
- E) the medical crimes committed in [Nazi Germany](#)

10. The Hippocratic Oath specifies the principles of beneficence and non-maleficence and the rule of confidentiality. Since the 60s a new consensus on ethics was sought to apply to the new medical problems. The consensus was on the basic principles and rules:

- A) Principle of beneficence
- B) Rules of confidentiality and veracity
- C) Principle of non-maleficence
- D) Principle of justice
- E) Principle of objectivity
- F) Principle of respect for the patient`s autonomy

***Additional tasks:***

- *Please find contemporary versions of physician`s oath used in medical educational institutions. Try to compare them to the original Oath of Hippocrates.*
- *Are there any values and restrictions that are irrelevant today?*
- *What can you say about the relationship between the patient and a doctor in both (contemporary and the original oath) documents?*
- *What can you say about the attitude to euthanasia, assisted suicide and abortions? Did it change due to development of medicine?*
- *Which actions are morally obligatory in Hippocratic Oath?*
- *What actions are morally obligatory in contemporary oaths?*

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