



UNIVERSITY OF SWAZILAND

Faculty of Health Sciences

Department of Environmental Health Science

BACHELOR OF SCIENCE DEGREE IN ENVIRONMENTAL HEALTH SCIENCE

MAIN EXAMINATION PAPER SEPTEMBER 2020

- TITLE OF PAPER : SUSTAINABLE DEVELOPMENT
- COURSE CODE : EHS442
- DURATION : 2 HOURS
- MARKS : 100
- INSTRUCTIONS :
- : READ THE QUESTIONS & INSTRUCTIONS CAREFULLY
 - : ANSWER **ANY FOUR** QUESTIONS
 - : EACH QUESTION **CARRIES 25** MARKS.
 - : WRITE NEATLY & CLEARLY
 - : NO PAPER SHOULD BE BROUGHT INTO THE EXAMINATION ROOM.
 - : BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER.

DO NOT OPEN THIS QUESTION PAPER UNTIL PERMISSION IS GRANTED BY THE INVIGILATOR.

QUESTION ONE

This is a multiple choice question worth 25 marks. Attempt all questions by copying the question number on your answer script and clearly writing the letter of the correct answer besides it. This question is compulsory.

1. What is sustainable development?
 - a. The development that meets the needs of the present without compromising the ability of future generations to meet their own needs
 - b. To conserve natural resources and to develop alternate sources of power while reducing pollution and harm to the environment
 - c. It is the practice of developing land and construction projects in a manner that reduces their impact on the environment by allowing them to create energy efficient models of self-sufficiency
 - d. All of the above
2. Which of the following is/are not an objective (s) of sustainable development?
 - a. Continue to implement the family planning program
 - b. Maintain a dynamic balance of arable land (not less than 123 million hectares) and implement an agricultural development strategy
 - c. Maintain a dynamic balance of water resources by reducing water consumption for every unit of gross development product growth and agricultural value added
 - d. To bring about a gradual and sometime catastrophic transformation of environment
3. When was the term 'Sustainable Development' came into existence?
 - a. 1987
 - b. 1980
 - c. 1978
 - d. 1992

4. Which of the following UN commission is responsible for reviewing progress in the implementation of Agenda 21 and the Rio Declaration on Environment and Development?
- United Nation Disarmament Commission
 - United Nations Statistical Commission
 - United Nations Commission on Sustainable Development (CSD)
 - United Nations Commission on Human Rights
5. Consider the following statement (s) related to the parameters of sustainable development refer to the guiding principles.
- Help in understanding the concept of sustainable development
 - Point the problems associated with it
 - Help to take active policy measures
- Code: Which answer below is correct?
- Both I & II
 - Both II & III
 - Both I & IV
 - I, II & III
6. What does "Agenda 21" mean?
- It's an agreement between 20 developing countries of the world on climate change
 - It's a free trade agreement between 7 developed countries of the world
 - Agenda 21 is a non-binding, voluntarily implemented action plan of the United Nations with regard to sustainable development
 - None of the above
7. Social, economical and ecological equity is the necessary condition for achieving
- Social development
 - Economical development
 - Sustainable development
 - Ecological development

8. The maximum number of individuals that can be supported by a given environment is called
- Biotic potential
 - Carrying capacity
 - Environmental resistance
 - Population size
9. How many agreements are there in Agenda – 21?
- 4
 - 5
 - 6
 - 7
10. The idea of sustainable development was conceived in early:
- 1950
 - 1960
 - 1970
 - 1980
11. Meeting the needs of the present without compromising the ability of future generation to meet their own need' is given by:
- Brundtland
 - Mahatma Gandhi
 - Maathai
 - Sunderlal Bahugan
12. Sustainable development will not aim at:
- Social economic development which optimise the economic and societal benefits available in the present, without spoiling the likely potential for similar benefits in the future
 - Reasonable and equitable distributed level of economic well being that can be perpetuated continually
 - Development that meets the need of the present without compromising the ability of future generation to meet their own needs
 - Maximising the present day benefits through increased resource consumption
13. Which of the following statements in relation to sustainable development is not true?

- a. Sustainable development is defined as the development that meets the needs of present without compromising the ability of our future generations to meet their own needs
- b. Sustainability has the main objective of purely focussing on the natural environment
- c. Sustainable development of various countries and the entire world is the only solution left with mankind to survive for a longer period on Earth
- d. Sustainable development not only considers the protection of the environment but also the maintenance of economic viability as well as the social and ethical considerations

14. What is not true about "The Earth Summit in Rio de Janeiro 1992"?

- I. The first global environment conference, the UN sought to help Governments rethink economic development and find ways to halt the destruction of irreplaceable natural resources and pollution of the planet.
- II. The first global environment conference, the UN sought to help Governments rethink political development and find ways to halt the destruction of irreplaceable natural resources and pollution of the planet.
- III. The second global environment conference, the UN sought to help Governments rethink environmental development and find ways to halt the destruction of irreplaceable natural resources and pollution of the planet.

Choose your answer from the following choices:

- a. Only I
- b. Only II
- c. I, II, III
- d. All are incorrect

15. Consider the following statement (s) related to Rio+20 ,1992

- I. Securing renewed political commitment for inclusive development

- II. Assessing the progress and implementation gaps in meeting previous commitments.
- III. Addressing new and emerging challenges. What is/ are not the objective of Rio+20, 1992 conference?

Choose you answer from the following choices::

- a. Only I
- b. Only II
- c. Only I & II
- d. I, II & III

16. UNCED stands for.....

- a. United Nations Confederation on Environment and Development
- b. United Nations Conference on Environment and Development
- c. United Nations Conference on Economical Development
- d. United Nations Confederation on Economy and Development

17. Which of the following is not included in the parameters of sustainable development?

- a. Carrying capacity
- b. Inter and Intra-generation equity
- c. Gender disparity and diversity
- d. None of the above

18. The United Nations Commission on Sustainable Development (CSD) was established by the UN General Assembly in December-----.

- a. 1992
- b. 1993
- c. 1994
- d. 1995

19. What are the Primary Goals of Sustainability?

- I. The end of poverty and hunger

- II. Better standards of education and healthcare - particularly as it pertains to water quality and better sanitation
- III. To achieve gender equality
- IV. Sustainable economic growth while promoting jobs and stronger economies

Choose your answer from the following choices::

- a. I, II & III
- b. I, III & IV
- c. I & III
- d. I, II, III & IV

20. Consider the following statement (s) related to the Sustainability.

- I. It refers to a process or state that can be maintained indefinitely.
- II. Natural resources must be used in ways that do not create ecological debts by over exploiting the carrying and productive capacity of the earth.
- III. A minimum necessary condition for sustainability is the maintenance of the total natural capital stock at or above the current level.

Choose your answer from the following choices::

- a. Only I
- b. Only II
- c. Only II & III
- d. I, II & III

21. Which of the following is correct, if we only achieve two out of three pillars of Sustainable Development?

- a. Social + Economic Sustainability = Equitable
- b. Social + Environmental Sustainability = Bearable
- c. Economic + Environmental Sustainability = Viable
- d. All of the above

22. Modern concept of sustainable development focuses more on

- a. economic development

- b. social development
- c. environmental protection
- d. all of the above

23. As per United Nations, following is (are) the broader issue(s) of human development

- a. education
- b. public health
- c. standard of living
- d. all of the above

24. The numbers of Sustainable Development Goals (SDGs) by United Nations are

- a. 15
- b. 16
- c. 17
- d. 18

25. The Sustainable Development Goals (SDGs) recognize that all countries must stimulate action in the following key areas.

- a. people, planet, prosperity, peace and partnership
- b. people, planet, prosperity, plants and planning
- c. people, planet, prosperity, plants and partnership
- d. people, planet, prosperity, peace and planning

QUESTION TWO

Africa is challenged with several issues of environment, vulnerability and risks. Three-quarters of the world's poorest nations are in Africa. Millions of people lack adequate food, lack of housing, inadequate medical care, lack of clean water, and lack of safety to mention a few. The human suffering endangered by this poverty is tragic.

1. What are seven major environmental threats facing the various regions of the world.
[14 marks]
2. There are widespread social trends, intrinsically linked to the environment, that have negative feedback effects on the environmental trends, highlight these trends.
[6 marks]
3. Differentiate between the words Development and sustainable [5 marks]

Total 25 marks

QUESTION THREE

1. List any five sustainable development goals (SDGs). [5 marks]
2. Write short notes on any four of the SDGs you have listed in (1) above (five marks for each). [20 marks]

Total 25 marks

QUESTION FOUR

A CASE STORY OF MONIQUE HUTEAU

Monique Huteau, a recently retired nurse, is up to her elbows in soil as she tends to her lush garden. Strawberries, lettuce, squash, potatoes and more, she grows enough to cover a large portion of her family's needs in produce, buying what she lacks at the local hypermarket. She also cooks, cleans, cares for her grandchildren and paints watercolours at her home in the countryside a few minutes outside Poitiers, France.

During their working years, she and most of her nine siblings earned considerably more than their parents had poor farmers from the Anjou region. They live in well-maintained houses, drive nice cars, and take yearly vacations to distant places. A lot of hard work and astute savings and investments have allowed Monique and her husband, a retired teacher, to achieve these things – with the help of French social benefits which have kept their health care and education costs low and ensured them an adequate retirement income. For Monique there is no question: her generation had opportunities not available to their parents and consequently live very different lives materially and socially.

Monique's experience is a common one in many African countries: generations that had endured scarcity and hardship growing up have achieved, even on relatively modest incomes, the satisfaction of basic needs plus enough discretionary income to indulge in a few luxuries. With this have also come certain social benefits. Education levels have increased. More people have access to health care. Leisure time is guaranteed through paid vacations and

retirement plans. There is more geographic and social mobility. Indeed, the so-called developed world has seen average improvements in many areas that are important to “the good life”. Along with these improvements, however, have come worrying indications that this growth has costs which we cannot continue to ignore.

All the economic prosperity in the world cannot alone solve a problem like climate change on its own. On the contrary, unchecked growth – in the number of people driving cars and taking planes, for example – is making the situation worse. Also, average economic growth says nothing about income inequality: if wealth is growing for only a few, then the majority may not experience any tangible gains or improvements. These problems are compounded when added to the challenges facing the developing world – encompassing countries such as China and India who are undergoing rapid growth, as well as those like many Sub-Saharan African countries which are still far from having what the richer countries take for granted: peace, basic health care access, education, a relatively safe water supply, and so on.

Finally, do the resources exist to enable this kind of lifestyle for all of Earth’s over 7 billion people? It is estimated that in 2002 humans extracted over 50 billion tons of natural resources from the planet’s ecosystems, up a third in just 20 years. Projected economic growth rates put our extraction needs at 80 billion tons in 2020. The accumulation of a number of bad habits and “unsustainable” practices seems to have led to critical stresses on societies and the environment. In spite of unprecedented economic growth, the world has been on a course leading to resource depletion and serious social crises, and old ways of problem-solving have proven inadequate. Something has to be done to change development – its philosophy and methods – if societies wanted to reverse those negative trends. As Albert Einstein wrote, “Today’s problems cannot be solved if we still think the way we thought when we created them.”

Task: with reference to this story, answer the questions that follow

1. Would using the Earth’s resources at the current rate be advisable? Defend your response.

[7 marks]

2. Based on this story, can we and should we continue with the traditional model of development? Support your answer. [6 marks]
3. What do you say about sustainability in this story of Monique? Advance points from the story to support your response. [6 marks]
4. What are the unsustainability issues highlighted in this story? [6 marks]

Total 25 marks

QUESTION FIVE

1. Explain what is meant by the word **globalization**. [7 marks]
2. Highlight the factors that have contributed to the increased globalization. [5 marks]
3. Curitiba is considered as one of the showcase sustainable cities in the world. Do you agree or disagree? Defend your position. [13 marks]

Total 25 marks

END OF EXAMINATION