

UNIVERSITY OF SWAZILAND FACULTY OF HEALTH SCIENCES DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCE



RESIT EXAMINATION

TITLE OF PAPER

COURSE CODE

ALLOCATED TIME

DATE

TOTAL NUMBER OF MARKS

INSTRUCTIONS

ENVIRONMENTAL IMPACT ASSESSMENT

EHS445

2 HOURS

JANUARY/FEBRUARY 2019

100

- 1. DO NOT OPEN THIS PAPER UNTIL

 YOU ARE INSTRUCTED TO DO SO.
- 2. ANSWER ANY FOUR QUESTIONS.
- 3. BEGIN YOUR ANSWERS TO EACH QUESTION ON A FRESH PAGE.
- 4. POOR HANDWRITING AND CARELESSNESS IN ENGLISH LANGUAGE GRAMMAR SHALL RESULT IN LOSS OF MARKS.
 - ANY FORM OF MISCONDUCT DURING THE EXAMINATION IS PUNISHABLE IN LINE WITH RELEVANT ACADEMIC REGULATIONS.

QUESTION ONE [25 MARKS]

- According to the UK Department of the Environment, the definition of environment is "all media susceptible to pollution". State any five examples of such media [5].
- 2. The environment has important economic and sociocultural dimensions. State any five examples of such dimensions [5]
- 3. State any five examples of some of the types of impact that may be encountered in EIA [5].
- 4. Conducting an EIA process requires different approaches due to the diversity of situations that might be present on the ground. For each of the situations described below, state the most relevant style [5].
 - (a) The need for scientific analysis in decision making
 - (b) Conducting an EIA in a free and reasonable manner, where views are not overly polarised
 - (c) Conducting an EIA in polarised situations where resources are limited and where relatively little data exists
 - (d) Proponents are willing to delegate their decision-making authority to representatives
 - (e) Conducting an EIA where issues such as fairness, equity and justice predominate.
- 5. In EIA, what are the differences between effects and impacts? [5]

QUESTION TWO [25 MARKS]

- According to the sustainable development concept, man-made capital, human capital
 and natural capital are important aspects of development that must be passed on
 to future generations.
 - (a) State any four examples of man-made capital [4]
 - (b) State any three examples of human capita! [3]
 - (c) Sate any five examples of natural/environmental capital [5]
- 2. Although EIA now has over 40 years of history in many places, it has not been without problems. Some of the main problems in EIA currently include; the nature of methods of assessment; the quality and efficiency of the IEA process; the relative roles of participants in the process; the effectiveness of the IEA process; beyond the decision; and managing the widening scope and complexity of the impact assessment activity. Demonstrate your comprehension of these issues by stating the most relevant problem in each case below [7].
 - (a) Some of the main steps in the EIA process (e.g. auditing, monitoring) may be missing from many studies. There may also be problems with the steps that are included. The prediction of impacts raises various conceptual and technical problems.
 - (b) Other technical problems are the general lack of data and the tendency to focus on the quantitative, and often single, indicators in some areas.
 - (c) The various actors in the EIA process (the developer, the affected parties, the general public and the regulators at various levels of government) have different accesses to the process, and their influence on the outcome varies.
 - (d) Procedures for and the practice of public participation in the EIA process vary between, and sometimes within, countries, from the very comprehensive to the very partial and largely cosmetic.

- (e) In 1991, Jones et al found that one-third of the EISs did not appear to contain the required non-technical summary, that, in a quarter of the cases, they were judged not to contain the data needed to assess the likely environmental effects of the development, and that in the great majority of cases, the more complex, interactive impacts were neglected.
- (f) Many EISS are for one-off projects, and there is little incentive for developers to audit the quality of the assessment predictions and to monitor impacts as an input to a better assessment for the next project
- (g) In some areas of the world (e.g. California, Western Australia), the monitoring of impacts is mandatory, and monitoring procedures must be included in an EIS.
- 3. Describe any two advantages of an interdisciplinary approach to the EIA process [4].
- 4. State any two aspects of the environment that necessitate a full environmental impact report [2].

QUESTION THREE [25 MARKS]

- 1. What is EIA? [3]
- 2. What is the scope of an EIA? [3]
- 3. What is the process of scoping? [3]
- 4. Describe any four benefits of scoping in EIA [8].
- 5. State any six categories and/or types and/or groups of people that should participate in the scoping process [6].
- 6. Generally, good practice in scoping is to bring all affected and/or concerned people into a meeting with developers. One of the impact identification methods is then used to structure and/or guide discussions. State any two desirable results that should be achieved during this meeting [2].

QUESTION FOUR [25 MARKS]

- 1. State any six desirable skills of a team project manager in an EIA process [6].
- 2. State any five core roles of a project manager in EIA [5].
- State any six types of alternatives [6]
- 4. Describe any three benefits of considering alternatives in EIA [6].
- 5. What is an EIS? [2]

QUESTION FIVE [25 MARKS]

- 1. State any six crucial dimensions that form part of the description of a proposed project [6]
- 2. Some of the crucial dimensions that form part of the description of a proposed project include; lifecycle of activities, and purpose and rationale. For each of these, state at least three examples of issues that must be described [6]
- 3. What is the significance of a clear presentation of location and physical presence of a proposed project? [5]
- 4. State any four physical and any four socio-economic characteristics of projects [8].