



UNIVERSITY OF RUHUNA

Faculty of Engineering

Mid-Semester 8 Examination in Engineering: November 2014

Module Number: CE8329

Module Name: Environmental Management

[Two Hours]

[Answer all questions, each question carries equal marks]

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- Q1. a) "Environmental Impact Assessment (EIA) is not just a report to obtain permits or permission. It is a report meant to enhance the project outcomes through sound decision making." Rationalize this statement. [1.25 Marks]
- b) "The most contentious (causing disagreements) analysis in an EIA development process is the cost-benefit analysis." Give reasons. [1.25 Marks]
- c) "A comprehensive (or targeted) post EIA environmental monitoring program should be required for major projects, plans, or programs as a part of their life cycle." Give reasons. [1.25 Marks]
- d) "Terms of Reference (TOR) should be drafted after at least one site visit and a scoping session." Give reasons. [1.25 Marks]
- Q2. There is a proposal to construct a wastewater collection, treatment and disposal system for the greater Galle area.
- a) Name two aspects to be considered in the scoping and Terms of Reference (TOR) development of the Environmental Impact Assessment (EIA) for the selected project. [1.0 Mark]
- b) Identify two significant impacts for each of 'environmental' and 'social' impacts likely to arise due to this project. [1.5 Marks]
- c) Name a mitigatory measure to minimize each of the identified environmental and social impacts. [1.5 Marks]
- d) In carrying out an EIA for the above project, identify four viable alternatives that could be considered under the 'analysis of alternatives'? [1.0 Mark]
- Q3. Identify the most significant impacts and list with reasons, key factors to be included in an Environmental Management Plan (EMP) of the Environmental Impact Assessment (EIA) report of a proposed water resources development project that includes a diversion of an existing river to a reservoir by constructing a dam through a canal to supply water to the downstream area. [5.0 Marks]

- Q4. a) Explain briefly the criteria to be included in developing the cost : benefit analysis in an EIA of a road development project. [1.5 Marks]
- b) Explain briefly;
- i) How to identify an impact and determine its significance [1.0 Mark]
- ii) Screening in the EIA process and conceptual relationship between screening and scoping [1.0 Mark]
- iii) The role of interaction matrices and checklists in identifying and analyzing impacts, and analyzing alternatives in decision making [1.5 Mark]