BOTSWANA COLLEGE OF DISTANCE AND OPEN LEARNING

CERTIFICATE IN DISASTER MANAGEMENT

TECHNOLOGY IN DISASTER MANAGEMENT

TD 011

SESSIONAL EXAMINATION

Marks: 100

Duration: 3hrs

Instructions to students:

1. The examination consists of **Four** sections: A,B,C and D

2. Begin each answer to a new question on a new page

3. Answer questions according to instructions given in each section

4. Write answers in the answer booklet provided

5. Write in grammatical English

SECTION A: Multiple-choice questions.   [10 Marks]

Answer all the questions by choosing the correct answer from the alternatives given.

1. _____ ensures compliance with HAZMAT.

    a. Route planning

    b. Driver authentication

    c. Detection

    d. Tracking systems

2. _____ are the two major types of mass media.

    a. Television and Radio

    b. Radio and Satellite radio

    c. Electronic and print

    d. Television and Print

3. _____ is used to monitor volcanic activities.

    a. Remote sensing systems

    b. Global positioning systems

    c. Emergency management systems

    d. Geographic information systems

4. _____ is one of the emergency management systems.

    a. Hazmat

    b. Communication

    c. Response

    d. Transmission

5. Automated vehicle location is used at _____ stage.

   a. Mitigation

   b. Preparedness

   c. Response

   d. Recovery

6. The ultimate purpose of emergency management is to _____.

   a. Training

   b. Protect property

   c. Testing

   d. Recovery

7. Small size activities cannot be delineated on _____.

   a. Remote sensing systems

   b. Global positioning systems

   c. Emergency management systems

   d. Geographic information systems

8. Electromagnetic waves are not involved in _____.

   a. The sense of touch

   b. Radio Use

   c. Record keeping

   d. Science

9. A satellite that produces images on earth is called a _____.

    a. Sensor

    b. Landsat

    c. Radar

    d. Vaccine preventable disease

10. _____ is not an example of print media.

    a. Radio

    b. Newspapers

    c. Journals

    d. Magazines

SECTION B: True/False questions.   **[10 Marks]**

Indicate if the statement is True or False

1. Remote sensing utilizes heat waves to detect an object.

2. Landsat is a series of satellite that produce images of the earth.

3. X-ray utilizes useful property of microwave radiation.

4. Roadside detectors can monitor for the presence of hazardous cargo in sensitive areas and confirm that the cargo is on the expected route.

5. Night goggles use temperature differences to show objects.

6. Passive remote sensing makes use of emitted electromagnetic waves from radars.

7. GIS is a tool that allows users to create interactive queries.

8. Night goggles are made from a type of infrared sensor.

9. Geographic information system can be integrated with databases.

10. Flooding is not one of the most frequently occurring hazards.

SECTION C: Short answer questions.   [30 Marks]

Answer all questions from this section.

QUESTION 1

Differentiate between the following:

    a. Emergency management system and geographic information system.   **(2 marks)**

    b. Global positioning system and remote sensing.   **(2 marks)**

QUESTION 2

List and explain four technological tools that can be used to aid in the processes of disaster prevention and mitigation.   **(8 marks)**

QUESTION 3

    a. Identify five people who can use GIS.   **(5 marks)**

    b. List 3 advantages of remote sensing.   **(3 marks)**

QUESTION 4

    a. List the two main types of media and give examples for each.   **(6 marks)**

    b. Explain who is responsible for EMS and how they can take responsibilities. **(4 marks)**

SECTION D: Essay-type questions. [50 Marks]

Answer all questions in this section.

QUESTION 1

Discuss the application of Geographic Information Systems for HIV/AIDS taking into consideration the disaster management cycle. **(20 marks)**

QUESTION 2

Advance argument for and against the impacts of media during any disaster that has happened in your country. **(20 marks)**

QUESTION 3

How can EMS technology aid the response and recovery? **(10 marks)**

END OF THE PAPER!