

Part One: Reading

(15pts)

Comprehension

(8pts)

Read the text carefully then do the activities below.

Disasters can be either natural or man-made. Public health-related emergencies may also be regarded as disaster situations. The prime objective during any disaster situation is to minimize the damage as much as possible. Artificial Intelligence (AI) is revolutionizing disaster management and humanitarian aid. AI technology would be the backbone of the fourth industrial revolution. It has already proved its worth in different aspects of human life.

The use of AI technologies can help prevent and mitigate the impact of disasters, provide real-time assistance during emergencies, and support recovery efforts. AI can be efficiently used in the forecasting and management of any disaster situation. AI-driven algorithms can optimize resource allocation, routing for first responders, and evacuation plans to minimize casualties and property loss.

In post-disaster situations, AI aids in assessing the damage, identifying potential hazards, and streamlining the recovery process. Machine learning, satellite imaging, GIS, remote sensing along AI technology can pave us advanced ways of disaster management. AI has already shown its effectiveness in the recent COVID-19 pandemic situation as well.

Therefore, scientists and the government must consider this aspect of AI so that the deleterious outcomes of any kind of disaster can be prevented as much as possible. Further, researchers should concentrate on establishing accurate AI-driven methods to predict and manage upcoming disaster situations. As we are entering the AI-assisted world, we must embrace it and use it for our benefit

Adapted from : <https://journals.sagepub.com>

1. Choose the answer to complete each statement.

- a)during any emergency situation is to reduce the harm as much as possible.
a- The most important step b - The main purpose c - precautions are important.
- b) AI technologies can provide during emergencies.
a- a final solution b - an urgent support c - a total relief recovery
- c) disaster situations, AI helps in estimating the damage and recognizing possible hazards
a- During b- Before c - After.

2. Identify the paragraphs in which the following ideas are mentioned:

- a) Efficiency of AI in collecting statistics of damage caused by disasters.
b) It is advisable to develop and exploit AI in disaster aviodness.

3. Answer the following questions from the text.

- a) What are the different disaster situations?
b) How can AI be used as a tool of management before and during disasters?
c) What should scientists and researchers do to predict and avoid future disasters?

4. Find what or who do the underlined words in the text refer to.

- a) it (§1) b) its (§3) c) we (§4)

B/ Text exploration

(07 pts)

1. Find in the text words or phrases that are opposites in meaning to the following:

- a) Secondary (§1) ≠..... b) Increase (§2) ≠..... c) impossible≠ (§3).....

2. Divide the following words into root and affixes.

Profitable - unsophisticated - disapproval - assistance

Prefix	root	suffix

3. Complete sentence “b” so that it means the same as sentence “a”.

- a- Researchers should concentrate on establishing accurate AI-driven methods

b- Researchers
- a- AI has already proved its worth in different aspects of human life.

b- AI worth in different
- a- The use of AI technologies in disaster management will be very profitable in the next decades ”; It was reported

b- It was reported.....

4 Fill in each gap with the appropriate word from the list given.

rescue - affected – improving - data

During disasters, AI can analyze vast amounts of-1-..... to predict and track the disaster's progression, assist in-2-..... operations by identifying people in need, help allocate resources efficiently, and even provide support for mental health services to those-3-..... AI-powered systems can also contribute to early warning systems-4- disaster preparedness and response efforts.

Part two: Written expression

(5 pts)

Choose only ONE topic

Topic 1:

You conducted a survey to check out people are aware of the different usages of AI technologies especially in disasters' management .Using the following finding to write a report.

- Number of informants: 35 man 25 women aged between 25 to 50 years old.
- Have you ever heard of artificial intelligence? 60 YES.
- Can AI technologies be used in disaster management? 30: YES. 20: NO. 10: No idea.
- How can AI be used in disaster management? 30 no answer/ 10: forecasting disasters /15: identifying people in need /5: showing satellite imaging.

Topic 2:

Most of western countries think that humanitarian situation in Gaza needs an urgent interference by donating food, medicine and shelters to save people affected by Israeli military operations. Write an opinion article of about 100 to 120 words in which you state your disagreement about the claim above.

Good Luck and Best Wishes

The correction of the Final term Exam

Level: 2nd year SE1+2 – Math + Tech Math

Part One: Reading

(15pts)

Comprehension

(8pts)

1. Choose the answer to complete each statement.

(0.5× 3)

- a) **The main purpose** during any emergency situation is to reduce the harm as much as possible.
- b) AI technologies can provide **an urgent support** during emergencies.
- c) **After** disaster situations, AI helps in estimating the damage and recognizing possible hazards

a) **The main purpose** b) **an urgent support** c) **After**

2. Identify the paragraphs in which the following ideas are mentioned:

(0.5× 2)

- a) Efficiency of AI in collecting statistics of damage caused by disasters **is mentioned in paragraph N 03**
- b) It is advisable to develop and exploit AI in disaster aviodness **is mentioned in paragraph 04**

3. Answer the following questions from the text. (04 points)

- a) The different disaster situations are: natural or man-made. Public health-related emergencies. **(1.25)**
- b) Before emergencies, I technologies can help prevent and mitigate the impact of disasters by forecasting and management of any disaster situation while it can, provide real-time assistance during emergencies and support recovery efforts. **(1.5)**
- c) Scientists and researchers to should concentrate on establishing accurate AI-driven methods to predict and manage upcoming disaster situations? **(1.25)**

4. Find what or who do the underlined words in the text refer to.

(0.5×3)

- a) it → AI technology
- b) its → AI
- c) we: → people/ humans

B/ Text exploration

(07 pts)

1. Find in the text words or phrases that are opposites in meaning to the following: (0.5× 3)

- b) Secondary (§1) ≠ prime
- b) Increase (§2) ≠ minimize
- c) impossible ≠ (§3) potential.

2. Divide the following words into root and affixes.

(0.5× 4)

Profitable - - - assistance

The word	Prefix	root	suffix
Profitable	≠ ≠ ≠	Profit	eble
Unsophisticated	Un	Sophisticate	ed
disapproval	Dis	approve	al
assistance	≠ ≠ ≠	assist	ance

3. Complete sentence “b” so that it means the same as sentence “a”.

(2.5× point)

- 1. **b-** Researchers (**had better / ought to**) concentrate on establishing accurate AI-driven methods concentrate on establishing accurate AI-driven methods . **(0.5point)**
- 2. **b-** AI worth in different **aspect of life has been proved**. **(01point)**
- 3. **b-** It was reported that the use of AI technologies in disaster management would be very profitable in the next decade. **(01point)**

4. Fill in each gap with the appropriate word from the list given.

(0.5× 4)

During disasters, AI can analyze vast amounts of **data** to predict and track the disaster's progression, assist in **rescue** operations by identifying people in need, help allocate resources efficiently, and even provide support for mental health services to those **affected** AI-powered systems can also contribute to early warning systems **improving** disaster preparedness and response efforts.

- 1) **Data**
- 2) **rescue**
- 3) **affected**
- 4) **improving**