3(2)

Ans A fractal is defined as jagged or fragmented geometric shape which can be split into part that are considered a reduced copy of the whole. Although the study by fractals have existed as early as the 17th century, but the term fractal was only coined in 1975 by Benoit Mandelbrot It is derived from the latin word fractus which means broken or fractured. while a fractal is strictly a mathmatical construct, it is found in various non-mathematical model such as natural systems & artwork.
To understand fractals, it important to know first what their characteristics are its first characteristic is that its structure is defined by fine and small scale and/or substructures Another characteristic it has it that its shape can't be defined by Euclidean geometry The next is that it is that it is recursive and shows iteration to some degree In addition, fractals are usually considered to be infinitely complex as the appear similar in all levels of

magnificat can. There are a lot of natural phenomena that can be defined & predicted using fractals. Some these shapes include clouds, vegetables, colour patterns, lightnings and snowflakes.
And speaking of emaging one of the most important use of fractals is with regards to image compressing A pretty controversial process, it takes an image & expressed it into a related system of function this image is displayed quickly and is expressed in detail in an magnification in all studying fractals is both a complicated yet interesting branch of mathematic study. And yet despite all its intricacies, it still proves to be a useful tool.