

Exam.
Date 14/03/21

Mathematical Methods in Economics II

Course - 7 course number: U6/Eco/Exam33

Marks - 20

2021

Answer any two

■ $\times 10 = 20$

1) Let $y = -2x^3 + 8x^2 + 4x - 15$

a) Is the function increasing or decreasing at $x = 3$?b) Is the function convex or concave at $x = 3$?c) Can the function have a maximum at $x = 3$?

(10)

2) a) What do you mean by critical points of a function?

b) Explain inflection points.

c) What is the meaning of optimization?

(10)

3) a) What is the meaning of convexity of a function?

b) How could be measured the convexity of a function?

c) What do you understand by implicit and explicit function?

(10)