

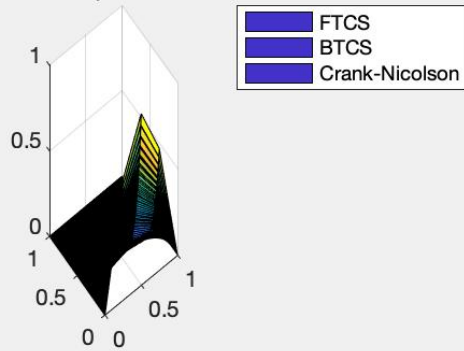
Ayush Sharma
(150123046)

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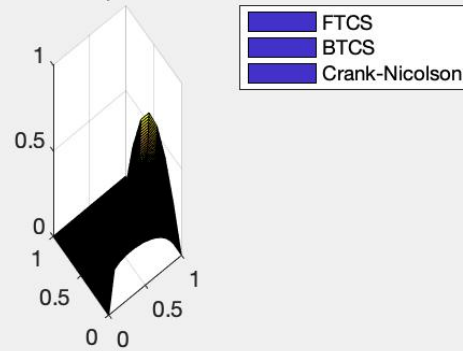
Question 1.(a)

Surface plots of the numerical solutions for different values of dx & dt .

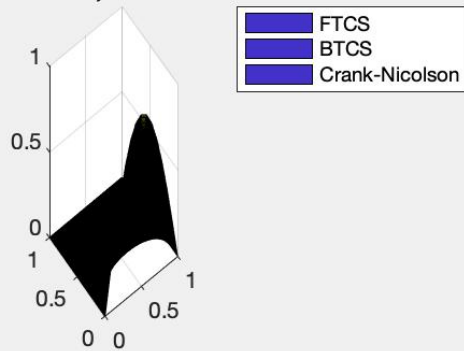
$dx = 1/5; dt = 1/125$



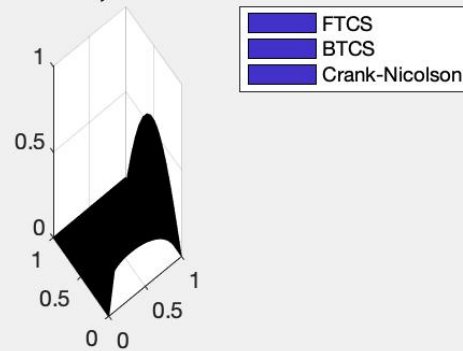
$dx = 1/10; dt = 1/500$



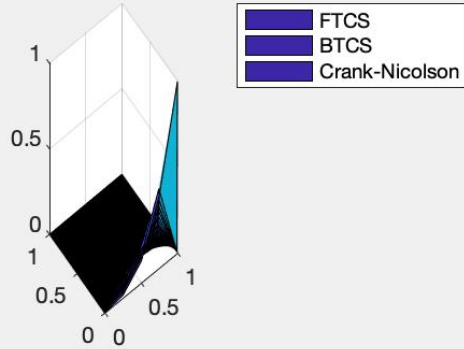
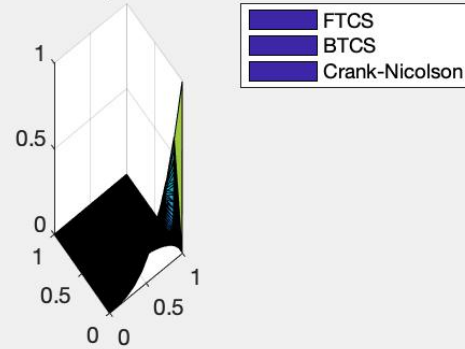
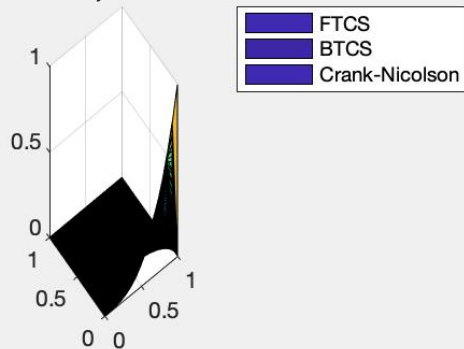
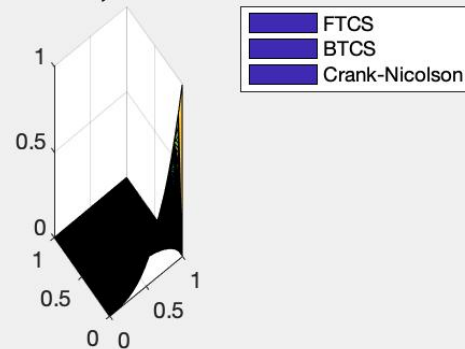
$dx = 1/15; dt = 1/1125$



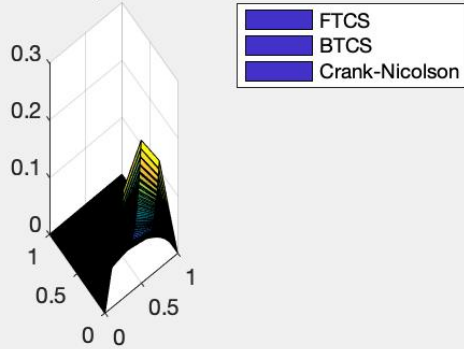
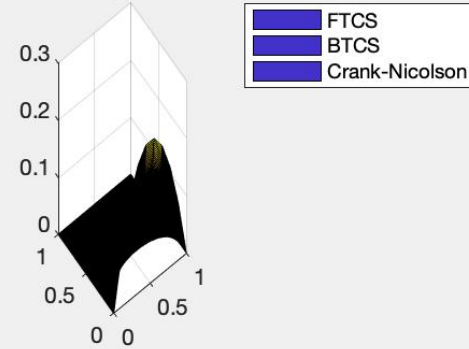
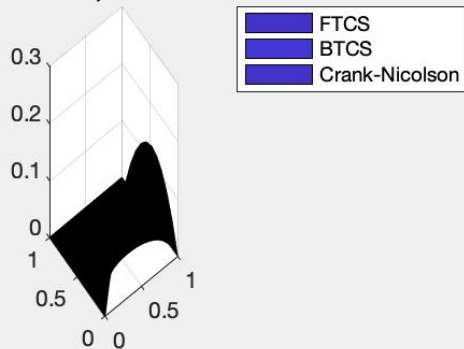
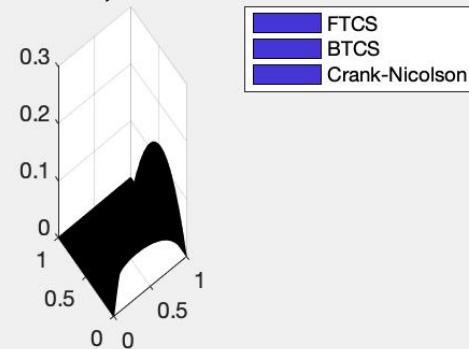
$dx = 1/20; dt = 1/2000$



Question 1.(b)

Surface plots of the numerical solutions for different values of dx & dt . $dx = 1/5; dt = 1/125$  $dx = 1/10; dt = 1/500$  $dx = 1/15; dt = 1/1125$  $dx = 1/20; dt = 1/2000$ 

Question 1.(c)

Surface plots of the numerical solutions for different values of dx & dt . $dx = 1/5; dt = 1/125$  $dx = 1/10; dt = 1/500$  $dx = 1/15; dt = 1/1125$  $dx = 1/20; dt = 1/2000$ 

Question 2.

