

BEG 2112: DIGITAL ELECTRONICS AND DEVICES

TIME: 30 minutes

DATE 13/04/2015

CAT

a) The inputs to a two-input AND gate has the following values for equal periods of time. (A, B)- (0, 0),(1, 1),(0, 1),(0, 0),(1,0),(1, 1),(0, 0). Draw the timing diagrams showing the waveforms for the inputs A and B and the output Y. **(5marks)**

b) Minimize the logic function $Y(A,B,C,D) = \sum(0,1,2,3,5,7,8,9,11,14)$ Using Karnaugh map. Implement logic circuit for the simplified function. **(10 marks)**

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