

**MID-FINAL (CSE2106)**  
**Time: 35 min, Marks -10**  
**Set- ODD\_ID**

Consider a 4-bit binary input (**A, B, C** and **D**). There are 2 outputs (**W1 and W2**).

If the leftmost 2 bits in the input number are greater than the rightmost 2 bits, then W1 is 1; Else W1 is 0.

If the rightmost 2 bits in the input number are greater than the leftmost 2 bits, then W2 is 1; Else W2 is 0.

If the leftmost 2 bits in the input number are equal to the rightmost 2 bits, then both W1 and W2 are 0.

**Submission Procedure:**

- Report (PDF File) – [5]
  - Truth table
  - K-map
  - Output functions-
  - Circuit diagram
- Proteus implementation (.pdsprj File) – [5]