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| **Benha University**  **Faculty of Engineering- Shoubra**  **Electrical Engineering Department**  **Post Graduate (Communications )** | Benha | **Mid-Term Exam**  **Date: 2017**  **CME 612 : Radar Systems**  **Duration : 1 Hour** |

**Answer the following (30 Marks)**

**1 - Introduction part**

1. **Classify the types of Radar, show its operation**
2. **What is meant by Clutter, what are types of clutter.**
3. **Write the radar equation, What equation similar in antennas**

**2 - CWR**

1. **Compare between CW systems and pulsed systems**
2. **Draw a simple CW radar system with a superhetrodyne receiver.**
3. **Show the advantages and disadvantages of CW radar**

**3- Doppler**

1. **What is meant by doppler effect?**
2. **Why is Doppler Radar Important?**
3. **How is the Beam height be calculated?**