STEEP TURNS

Setup
Configuration - Clean
Mixtures - FULL RICH
Throttles - 20”
Props - 2500 RPM
Procedure
1. Clearing Turn
2. Instrument Check (Temps / Oil / Vacuum)
3. Set Heading Bug on entry heading
4. Verify airspeed below 149 MPH (V_A)
5. Bank to 45° while maintaining altitude
6. Trim as required to maintain altitude in turn
7. Throttles as required to maintain airspeed within 10 knots (12 MPH)
8. Reverse after 180 or 360 degrees of turn

SLOW FLIGHT (PRIVATE/COMMERCIAL)

Setup
Mixtures - FULL RICH
Props - 2500 RPM
Configuration - GEAR DOWN / FLAPS FULL
Procedure
1. Clearing Turn
2. Instrument Check (Temps / Oil / Vacuum)
3. Set Heading Bug on entry heading
4. Configure (Gear DOWN / FLAPS FULL)
5. Slow to just above stall light while maintaining altitude
6. Execute maneuvers as directed
7. Recover while maintaining altitude
   Throttles - FULL OPEN
   Flaps - 1/2
   Gear - UP
   Flaps - UP

STALLS (PRIVATE/COMMERCIAL)

Setup
Mixtures - FULL RICH
Props - 2500 RPM
Procedure
Clearing Turn
Instrument Check (Temps / Oil / Vacuum)
Power Off (Gear Down / Flaps Down)
1. Decelerate at idle
2. Maintain altitude with pitch
3. Recover
Power On (Gear Up / Flaps Up)
1. Decelerate to 100 MPH
2. Throttles - 20-23” MP
3. Increase AOA until buffet or stall light (not to exceed 20° Nose UP)
4. Recover
Accelerated (Gear Up / Flaps Up) - *COMMERCIAL ONLY*
1. Slow and maintain 120 MPH
2. Establish 45° AOB while maintaining altitude
3. Rapidly increase AOA until buffet or stall light (whichever occurs first)
4. Recover

Recovery
Lower Nose and Add Full Power
Level Wings (Rudder then Ailerons)
Pitch - 5-10° Nose UP
Flaps - 1/2 (if extended)
Positive Rate of Climb (Altimeter & VSI) - Gear UP
Flaps - UP

STALLS (ATP)

Clean Configuration
1. Straight and level, auto pilot on, throttles near idle.
2. Auto pilot attempts to hold altitude and inadvertently pulls the aircraft into a stall.
3. Disconnect the autopilot and recover.

Partial Flap Configuration
1. Flaps half, gear up, simulating a missed approach just after the gear has come up.
2. Command a left or right turn with the autopilot and a climb with full power.
3. As the auto pilot performs the climbing turn, pull the power back to simulate a power reduction for speed without paying attention.
4. Although you have gone to near idle, the autopilot continues to try and climb and turn, again inadvertently stalling the airplane.
5. Disconnect the autopilot and recover.
6. Emphasize reducing angle of attack and staying in the turn to allow positive G on the airplane vice an aggressive wings level push over.

Lading Configuration
1. Full flaps, gear down, full dirty configuration.
2. Auto pilot on, reduce power to idle and watch the auto pilot pull the aircraft into a stall.
3. Disconnect the auto pilot and recover.

V_{MC} DEMO (PRIVATE/COMMERCIAL)

Setup
Altitude - 5,000 FEET AGL
Configuration - Clean
Mixtures - FULL RICH
Airspeed - 110 MPH
Props - HIGH RPM (LOW PITCH)
Procedure
1. Clearing Turn
2. Instrument Check (Temps / Oil / Vacuum)
3. Note entry heading with heading bug
4. Left Throttle - Idle
5. Maintain heading and altitude
6. Right Throttle - Full Power
7. Stabilize at 107 MPH on heading and altitude
8. Set a Pitch Attitude that will enable a 1 knot Decrease per Second
9. Recover after reaching full rudder deflection or stall horn (whichever occurs first)

Recovery
Reduce power on operative engine and lower nose
Maintain directional control (heading)
Full Power with RIGHT THROTTLE
Stabilize level at 107 MPH then match throttles

DRAG DEMO (MEI)

Setup
Configuration - CLEAN
Altitude - 5,000 FEET AGL
Airspeed - 110 MPH
Procedure
1. Clearing Turn
2. GUMPF check
3. Note entry heading with heading bug
4. Left Engine - Set Simulated Feather
   Left Throttle - 10” MP
   Left Prop 2200 RPM
6. Right Throttle - Full Power
7. Maintain 107 MPH
8. Change configurations as follows noting the vertical speed when stable at 107 MPH
   A. Landing Gear DOWN
   B. Landing Gear UP Flaps DOWN
   C. Landing Gear DOWN & Flaps DOWN
   D. Left Engine Windmilling