

SRINIVASAN ENGINEERING COLLEGE PERAMBALUR

AE1013 – HELICOPTER MAINTENANCE

Unit-I

1. Write short notes on basic directions of helicopter.
2. Explain detail about ground handling techniques of helicopters.
3. Explain in detail about types of bearings used in the helicopters.

Unit-II

1. Explain the procedure for rotor head maintenance.
2. Explain in detail about blade alignment and static main rotor balance.
3. Explain briefly about the mast.
4. Explain in detail about the stabilizer bar.
5. Explain in detail about swash plate maintenance.
6. Explain briefly about the flight control systems.
7. Describe briefly about the following.
Pushpull tubes – Torque tubes – Bell cranks – Mixer box – Gradient unit control boosts

Unit-III

1. Discuss briefly about the freewheeling units.
2. Explain in detail about engine transmission couplings.
3. Write briefly about driveshaft and its maintenance with neat sketches.
4. Explain in detail about the role of torquemeter.
5. Explain in detail about the rotor brake and mention its maintenance procedures also.
6. Explain in detail about transmission techniques of the helicopters.

Unit-IV

1. Write briefly about fixed wing power plant modifications.
2. Explain the installation techniques of the power plants..
3. Explain the various components in turboshaft engines of the aircraft.
4. Explain in detail about major components of the tail rotor drive shaft system.
5. Explain the various components of tail rotor assembly.

6. Explain the various techniques of tail rotor installation.

Unit-V

1. Explain in detail about fuselage maintenance.
2. Explain in detail about various systems of airframe.
3. Explain in detail about special purpose equipment.