

Name of ICD Programme: Mechanical Engineering (DME)
 Name of Certificate programme: Auto and Farm Equipment Mechanic (CAF)

Title of the course : TRADE SPECIFIC TRAINING-3
 Subject Code : QPME 301

L	T	P	Credits	Weekly Load
0	0	8	01	8 hours

COURSE OUTCOMES:

After successful completion of course, the students should be able to

- CO1: Analyze field efficiency of tillage equipment.
- CO2: Evaluate performance of IC engine.
- CO3: Understand the techniques for fertility evaluation of soils.
- CO4: Familiarize with working of agriculture implement's manufacturing industries.

CO's	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	3	3	3	3	2	2	3	3	2
CO2	3	3	3	3	2	1	3	3	2
CO3	3	3	3	2	3	2	3	2	3
CO4	2	3	3	3	3	3	3	3	3
Average	2.75	3	3	2.75	2.5	2	3	2.75	2.5

List of Activities

1. Testing and evaluation of tillage machinery.
2. Field efficiency of various tillage equipment namely:
 - a) Cultivator
 - b) Disc Harrow
 - c) Rotavator
3. Evaluation of speed range of tractor in different gear modes.
4. Performance test of Internal Combustion Engine.
5. Performance test of tractor in the field.
6. Evaluation of fertility index for different soils.
7. Industrial visit for data collection and developing supply line diagram for tractor manufacturing.
8. Industrial visit for data collection and developing supply line diagram for agriculture implements.
9. Industrial visit for data collection and layout development for cold storage.
10. Performance analysis of different types of hydrocarbon-based fuels.

Handwritten signatures and notes:
 Chibased, hill, Somay, K...
 [Several other illegible signatures and initials]

Name of ICD Programme: Mechanical Engineering (DME)
Name of Certificate programme: Auto and Farm Equipment Mechanic (CAF)

Title of the course : **TRADE SPECIFIC TRAINING- 4**
 Subject Code : **QPME 302**

L	T	P	Credits	Weekly Load
0	0	8	01	8 hours

COURSE OUTCOMES:

After successful completion of course; the students should be able to

- CO1:** Develop paddy straw-based materials for different applications.
- CO2:** Conduct the performance evaluation of agriculture-based materials.
- CO3:** Understand the harmful effects of pesticides.
- CO4:** Develop skills for maintenance and servicing of tractor.

CO's	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	3	3	3	2	3	2	3	3	3
CO2	2	3	3	3	3	2	3	3	3
CO3	3	3	3	2	3	2	3	2	3
CO4	3	3	3	3	2	2	3	3	3
Average	2.75	3	3	2.5	2.75	2	3	2.75	3

List of Activities

1. Report on utilization of paddy straw
 - a) As fuel
 - b) As construction material
2. Development of various types of agriculture-based composite materials.
3. Exploring various post processing techniques for improving mechanical properties of developed composite materials.
4. Evaluation of mechanical properties for developed composite materials with and without post treatment.
5. In-vitro Dry Abrasion testing of developed composite materials under different operating conditions by simulating them with actual field conditions.
6. In-vitro Wet Abrasion testing of developed composite materials under different operating conditions by simulating them with actual field conditions.
7. In-vitro Slurry erosion testing of developed composite materials under different operating conditions by simulating them with actual field conditions.
8. Prepare a report on harmful effects of pesticides used in farming.
9. Wheel balancing and alignment of four-wheelers.
10. Routine service and predictive maintenance of Tractor.
11. Evaluation of exhaust gases for diesel and petrol vehicles.

