

**GUJARAT TECHNOLOGICAL UNIVERSITY****Syllabus for Bachelor of Vocation (B.Voc), 2nd Semester****Branch: Production Technology****Subject Name: Maintenance Lab****Subject Code: 21120306****With effective
from academic
year 2021-22****Teaching and Examination Scheme:**

Teaching Scheme			Credits C	Examination Marks						Total Marks
L	T	P		Theory Marks			Practical Marks			
				ESE (E)	PA (M)		PA(V)		PA (I)	
00	00	02	02	50	00	00	30	00	20	50

L- Lectures; P- Practical; OJT- On Job Training; C- Credit; ESE- End Semester Examination; PA- Progressive Assessment

Content:

Sr. No.	Topic	No. of Hours
01	Preparatory Activity: Study and demonstrate use of various types of tools. (Fix spanners, box spanners, ring spanners, allen keys, types of pliers, screw drivers, bearing puller, etc.).	4
02	Fault Tracing and Decision Tree: Develop decision tree for location of fault for any two items from following: Internal combustion (IC) engine. a) Boiler. b) Pump. c) Machine tool. d) Air compressor. e) Electric motor.	6
03	Maintenance of Mechanical Based Equipment/Device/Machine Maintenance of any two from following. Batch may be divided in to two groups and each group may be given one case. a) Head stock. b) Tail stock. c) Feed box. d) Indexing head. e) Internal combustion (IC) engine. f) Pump. (Dismantle of given case, observe rules, follow sequence of dismantling operations, cleaning, inspection, measuring deviations , recovery methods, testing and assembling).	12
04	Preventive Maintenance Prepare a preventive maintenance schedule of any workshop having- air compressors, car washing pumps, tyre changer, lifts, welding machines, and wheel alignment.	6
05	Safety Demonstrate use of fire fighting and safety related equipments.	4



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Course Outcomes:

Students will be able to:

Sr. No.	CO statement	Marks % weightage
CO-1	Demonstration of various types of tools for maintenance	10
CO-2	Demonstration of activity of fault tracing	20
CO-3	Perform the maintenance of machine tool and understand preventive maintenance concept.	60
CO-4	Demonstration the use of safety related equipments	10