T	P	C
2	0	2

MARKS DISTRIBUTION			
TC	TF	PC	PF
40	60	0	0

KHULNA POLYTECHNIC INSTITUTE, KHULNA
MECHANICAL TECHNOLOGY
SUBJECT: MECHANICAL ENGINEERING MATERIALS (27031)

SEMESTER PLAN

WEEK	CLASS	ART.	DESCRIPTION	REMARKS
1	1/1	1.1, 1.2, 1.3	Definition, classification & listing of mechanical engineering materials	6
	2/2	1.4	Characteristics of mechanical engineering materials	
2	1/3	1.5, 1.6	Properties & uses of aluminum	
	2/4	2.1, 2.3, 2.4	Types of metals, definition & listing of ferrous and non-ferrous metals	8
3	1/5	2.8, 2.9	Use of non-ferrous metals: copper, zinc, tin, lead, brass, bronze	
	2/6	2.2, 2.6	Definition & types of alloys	
4	1/7	2.5, 2.7	Definition of mild steel, carbon & uses of steel	
	2/8	3.1, 3.2, 3.3	Definition of sand & cement, classification & specifications of sand	CLASS TEST-1
5	1/9	3.4, 3.5	Purposes & uses of grading and various grades of sand	8
	2/10	3.6, 3.7, 3.9	Classification, ingredients & uses of cement	
6	1/11	3.8	Explanation of wet and dry process of mfg. of cement	
	2/12	4.1, 4.2, 4.3	Functions, listing & definition of insulating, heat insulating, synthetic insulating materials	
7	1/13	4.4, 4.5	Sources of rubber, cork, ebonite and uses of asbestos	6
	2/14	4.6, 4.7	Listing natural & artificial sound absorbing materials, explain light weight concrete	
8	1/15	**MID SEMESTER EXAMINATION**		
	2/16			
9	1/17	5.1, 5.2	Definition & constituents of glass	
	2/18	5.3, 5.4	Properties & uses of glass	
10	1/19	5.5, 5.6, 5.7	Definition, constituents & classification of ceramics	7
	2/20	5.8, 5.9 & 6.1, 6.2	Properties & uses of ceramics; Definition of paints & varnishes	
11	1/21	6.3, 6.4, 6.5	Classification & characteristics of paints & varnish	4
	2/22	6.6, 6.7, 6.8	Describing color code and uses of paints & varnish	
12	1/23	7.1, 7.2	Statement & use of fire & water proofing materials	
	2/24	7.3, 7.4, 7.5	Definition, Characteristics & use of refractory materials	5
13	1/25	8.1, 8.2, 8.3	Definition, Classification & raw materials of plastics	
	2/26	8.4, 8.5	Types of plastic molding & uses of plastic	CLASS TEST-2
14	1/27	9.1, 9.2, 9.3	Definition, listing & classification of composite materials	6
	2/28	9.4	Application of composite materials	
15	1/29	10.1, 10.2	Definition & classification of magnetic materials	
	2/30	10.3, 10.4	Conducting, non-conducting & semi-conducting materials and uses of semi-conducting materials	4
16	1/31	10.5	Uses of magnet in industrial field	6
	2/32	10.6, 10.7	Definition & uses of optical fiber	

- REFERENCE BOOKS:
  1. A Text Book on Engineering Materials -- G J Kulkarni
  2. Engineering Materials -- Dr. M A Aziz

19-01-2025
HEAD OF THE DEPT.

19-01-2025
CLASS TEACHER

TC (40%)=40					TF (60%)=60	Tot (100%)=100
Mid (20%)=20	CT (6%)=6	Q (4%)=4	P&A (5%)=5	Attd (5%)=5	(ক) ০১*১০=১০ // (খ) ০২*১০=২০ // (গ) ০৬*০৫=৩০	Tot=TC(40)+TF(60)