

Equivalence of Courses from 180 Q Credits Scheme with 180 S Credits Scheme

Name of the Programme : Diploma in Metallurgy

180 Q Credits Scheme										180 S Credit Scheme										Equivalence Yes/No				
Name of the Course from 180 Q Credit Scheme	Course Code	Teaching Scheme (Credits)					Evaluation					Name of Equivalent Course from 180 S Credit Scheme	Course Code	Teaching Scheme (Credits)					Evaluation					
		L	P	T	Total credit	PA	TH	TW	OR	PR	L			P	T	Total credit	PA	TH	TW		OR	PR		
Level I- Foundation Level Courses																								
English	HU161	2	2	0	4	20	80	25	0	0	English	HU181	2	2	0	4	20	80	25	0	0	Yes		
Communication Skills	HU162	2	2	0	4	20	80	25	0	0	Communication Skills	HU182	2	2	0	4	20	80	0	25	0	Yes		
Applied Mathematics I	SC161	3	0	1	4	20	80	0	0	0	Applied Mathematics I	SC181	3	0	1	4	20	80	0	0	0	Yes		
Applied Mathematics II	SC162	3	0	1	4	20	80	0	0	0	Applied Mathematics II	SC182	3	0	1	4	20	80	0	0	0	Yes		
Engineering Physics	SC164	4	2	0	6	20	80	0	0	50	Engineering Physics	SC183	3	2	0	5	20	80	0	0	50	Yes		
Engineering Chemistry	SC166	3	2	0	5	20	80	0	0	50	Engineering Chemistry	SC184	3	2	0	5	20	80	0	0	50	Yes		
Level II A- Core Technology Courses																								
Engineering Mechanics	AM261	4	2	0	6	20	80	25	25	0	Engineering Mechanics	AM281	4	2	0	6	20	80	25	0	0	Yes		
Basics of Computer Systems	CM261	3	2	0	5	0	0	25	0	50	Computer Fundamentals	CM286	1	2	0	3	0	0	25	0	50	Yes		
Programming in C	CM262	3	2	0	5	20	80	0	0	50	Nil	--	--	--	--	--	--	--	--	--	No			
Engineering Graphics	ME262	2	4	0	6	20	80	50	0	0	Engineering Graphics	ME281	2	4	0	6	20	80	25	0	0	Yes		
Advanced Physics	SC463	3	2	0	5	20	80	25	0	0	Advanced Physics	SC283	3	2	0	5	20	80	25	0	0	Yes		
Workshop Practice	WS261	0	4	0	4	0	0	50	0	0	Workshop Practice	WS281	0	4	0	4	0	0	50	0	0	Yes		
Elements of Electrical Engineering	EE263	3	2	0	5	20	80	25	0	0	Electrical Technology	EE282	3	2	0	5	20	80	25	0	0	Yes		
Elements of Electronics Engineering	ET262	3	2	0	5	20	80	25	0	0	Elements of Electronics Engineering	ET285	3	2	0	5	20	80	25	0	0	Yes		
Nil	--	--	--	--	--	--	--	--	--	--	Elements of Mechanical Engineering	ME286	3	2	0	5	20	80	25	0	0	No		
180 Q Credits Scheme										180 S Credit Scheme														
Teaching Scheme										Teaching Scheme										Equi-				
Evaluation										Evaluation										valence				

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Name of the Course from 180 Q Credit Scheme	Course Code	(Credits)					PA	TH	TW	OR	PR	Name of Equivalent Course from 180 S Credit Scheme	Course Code	(Credits)					PA	TH	TW	OR	PR	VALENTICE Yes/No									
		L	P	T	Total credit	L								P	T	Total credit																	
Level II B- Core Technology Courses																																	
Applied Mathematics III	SC361	2	0	1	3	20	80	0	0	0	Applied Mathematics III	SC281	2	0	1	3	20	80	0	0	0	Applied Mathematics III	SC281	2	0	1	3	20	80	0	0	0	Yes
Furnace Technology	MT566	3	1	0	4	20	80	0	50	0	Furnace Technology	MT281	3	0	0	3	20	80	0	0	0	Furnace Technology	MT281	3	0	0	3	20	80	0	0	0	Yes
LEVEL III- Basic Technology Courses																																	
Nil	--	--	--	--	--	--	--	--	--	--	Mini Project	MT381	0	2	0	2	0	0	25	25	0	Nil	--	--	--	--	--	--	--	--	--	No	
Basic Metallurgy	MT461	3	3	0	6	20	80	25	50	0	Basic Metallurgy	MT382	4	4	0	8	20	80	25	50	0	Basic Metallurgy	MT382	4	4	0	8	20	80	25	50	0	Yes
Material Testing & Quality Assurance	MT462	3	3	0	6	20	80	25	0	50	Material Testing & Quality Assurance	MT383	4	4	0	8	20	80	25	0	50	Material Testing & Quality Assurance	MT383	4	4	0	8	20	80	25	0	50	Yes
Metallurgical Analysis	MT463	3	4	0	7	20	80	25	0	50	Metallurgical Analysis	MT384	4	4	0	8	20	80	25	0	50	Metallurgical Analysis	MT384	4	4	0	8	20	80	25	0	50	Yes
Extraction of Ferrous Metals	MT464	3	0	0	3	20	80	0	50	0	Extraction of Ferrous Metals	MT385	4	0	0	4	20	80	0	50	0	Extraction of Ferrous Metals	MT385	4	0	0	4	20	80	0	50	0	Yes
Extraction of Non Ferrous Metals	MT465	3	0	0	3	20	80	0	50	0	Extraction of Non Ferrous Metals	MT386	4	0	0	4	20	80	0	50	0	Extraction of Non Ferrous Metals	MT386	4	0	0	4	20	80	0	50	0	Yes
Non Conventional Machining Processes	MT466	2	1	0	3	20	80	0	50	0	Nil	--	--	--	--	--	--	--	--	--	Nil	--	--	--	--	--	--	--	--	--	No		
Elements of Electrical & Mechanical Engineering	MS461	4	2	0	6	20	80	50	50	0	Nil	--	--	--	--	--	--	--	--	--	Nil	--	--	--	--	--	--	--	--	--	No		
LEVEL IV A- Auxiliary Courses																																	
Environmental Science	AU361	2	1	0	3	20	80	0	0	0	Environmental Science	AU481	0	2	0	2	0	0	50	0	0	Environmental Science	AU481	0	2	0	2	0	0	50	0	0	Yes
Community Development	AU362	2	1	0	3	20	80	0	0	0	Community Development	AU482	2	0	0	2	20	80	0	0	0	Community Development	AU482	2	0	0	2	20	80	0	0	0	Yes
Renewable & Sustainable Energy Management	AU363	2	1	0	3	20	80	0	0	0	Renewable & Sustainable Energy Management	AU483	2	0	0	2	20	80	0	0	0	Renewable & Sustainable Energy Management	AU483	2	0	0	2	20	80	0	0	0	Yes
Engineering Economics	AU364	2	1	0	3	20	80	0	0	0	Engineering Economics	AU484	2	0	0	2	20	80	0	0	0	Engineering Economics	AU484	2	0	0	2	20	80	0	0	0	Yes
Industrial Psychology	AU365	2	1	0	3	20	80	0	0	0	Nil	--	--	--	--	--	--	--	--	--	Nil	--	--	--	--	--	--	--	--	--	No		

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		L	P	T	Total credit	PA	TH	TW	OR	PR	L			P	T	Total credit	PA	TH	TW		OR	PR		
LEVEL IV B- Management Courses																								
Principles of Management	MA661	3	0	0	3	20	80	0	0	0	Nil	--	--	--	--	--	--	--	--	No				
Project Management	MA663	3	0	0	3	20	80	0	0	0	Construction Management	MA481	3	0	0	3	20	80	0	0	Yes			
Nil	--	--	--	--	--	--	--	--	--	--	Industrial Organisation & Management	MA482	3	0	0	3	20	80	0	0	No			
Entrepreneurship Development	MA662	3	0	0	3	20	80	0	0	0	Entrepreneurship Development	MA483	3	0	0	3	20	80	0	0	Yes			
Materials Management	MA664	3	0	0	3	20	80	0	0	0	Materials Management	MA484	3	0	0	3	20	80	0	0	Yes			
Supervisory Management	MA665	3	0	0	3	20	80	0	0	0	Supervisory Management	MA485	3	0	0	3	20	80	0	0	Yes			
Total Quality Management	MA666	3	0	0	3	20	80	0	0	0	Total Quality Management	MA486	3	0	0	3	20	80	0	0	Yes			
Management Information System	MA668	3	0	0	3	20	80	0	0	0	Management Information System	MA487	3	0	0	3	20	80	0	0	Yes			
Software Project Management	MA667	3	0	0	3	20	80	0	0	0	Nil	--	--	--	--	--	--	--	--	No				
LEVEL IV C- Applied Technology Courses																								
Project and Seminar (In-house / Industry)	MT561	0	8	0	8	0	50	100	0	0	Project and Seminar (In-house / Industry)	MT481	0	8	0	8	50	0	50	0	0	Yes		
Elements of Physical Metallurgy	MT467	3	3	0	6	20	80	25	0	50	Elements of Physical Metallurgy	MT482	4	3	0	7	20	80	0	0	50	Yes		
Foundry Engineering	MT562	4	3	0	7	20	80	25	50	0	Foundry Engineering	MT483	4	3	0	7	20	80	25	50	0	Yes		
Powder Metallurgy	MT563	4	2	0	6	20	80	25	50	0	Powder Metallurgy	MT484	4	3	0	7	20	80	25	50	0	Yes		
Metal Working Processes	MT564	4	3	0	7	20	80	0	50	0	Metal Working Processes	MT485	4	3	0	7	20	80	25	50	0	Yes		
Heat Treatment of Metals & Alloys	MT565	4	4	0	8	20	80	25	0	50	Heat Treatment of Metals & Alloys	MT486	4	3	0	7	20	80	25	0	50	Yes		
LEVEL IV D- Non Credit Non Exam Courses																								
Development of Soft Skills I	NE376	1	2	0	3	0	0	25	0	0	Development of Soft Skills I	NC481	0	2	0	2	0	0	25	0	0	Yes		
Development of Soft Skills II	NE377	1	2	0	3	0	0	25	0	0	Development of Soft Skills II	NC482	0	2	0	2	0	0	25	0	0	Yes		

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LEVEL V A- Diversified Courses																							
Metallurgical Drawing & Design	MT761	2	3	0	5	20	80	0	50	0	Metallurgical Drawing & Design	MT581	4	3	0	7	20	80	0	50	0	Yes	
Selection of Materials & Failure Analysis	MT762	3	2	0	5	20	80	0	50	0	Selection of Materials & Failure Analysis	MT582	4	3	0	7	20	80	0	50	0	Yes	
Welding & Modern Forming Processes	MT763	3	2	0	5	20	80	0	50	0	Welding & Modern Forming Processes	MT583	4	3	0	7	20	80	0	50	0	Yes	
Computer Applications in Metallurgy	MT764	2	3	0	5	20	80	0	50	0	Computer Applications in Metallurgy	MT584	4	3	0	7	20	80	0	50	0	Yes	
LEVEL V B- Diversified Courses																							
Advanced Physical Metallurgy	MT765	3	2	0	5	20	80	0	50	0	Advanced Physical Metallurgy	MT585	4	3	0	7	20	80	0	50	0	Yes	
Modern Foundry Engineering	MT766	2	3	0	5	20	80	0	50	0	Modern Foundry Engineering	MT586	4	3	0	7	20	80	0	50	0	Yes	
Surface Protection Methods	MT767	3	2	0	5	20	80	0	50	0	Surface Protection Methods	MT587	4	3	0	7	20	80	0	50	0	Yes	
Non Metallic Materials	MT768	3	2	0	5	20	80	0	50	0	Non Metallic Materials	MT588	4	3	0	7	20	80	0	50	0	Yes	

L - Lecture, P-Practical, T-Tutorial, PA- Progressive Assessment, TH-Theory, TW- Term Work, OR- Oral, PR-Practical. Each Lecture / Practical period is of one clock hour

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CDC Incharge, G.P. Pune.

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Head of Metallurgy Department &
Chairman PBOs, G.P. Pune.