INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

STATEMENT OF GRADES OBTAINED FOR THE 10 SEMESTER DUAL DEGREE IN ENGINEERING/TECHNOLOGY LEADING TO THE AWARD OF

BACHELOR OF TECHNOLOGY (HONOURS) AND MASTER OF TECHNOLOGY

Roll No: 17MT30004 **Name: ARZA AKHIL** **Year of Admission : 2017-2018**

Course: B.Tech.(Hons.) in METALLURGICAL AND MATERIALS ENGINEERING and M.Tech. in METALLURGICAL AND MATERIALS ENGINEERING **Year of Graduation : 2021-2022**

For Semester 1 SGPA: 7.48 CGPA: 7.48

Subno	Name	L-T-P	CRD	GRD
CE13001	ENGINEERING DRAWING AND COMPUTER GRAPHICS	1-0-3	3	D
CS10001	PROGRAMMING AND DATA STRUCTURES	3-0-0	3	B
CS19101	PROGRAMMING AND DATA STRUCTURES TUTORIAL AND LABORATORY	0-1-3	3	B
EA10001	EXTRA ACADEMIC ACTIVITY-I	0-0-3	0	Y
EA10005	INDUCTION PROGRAM	0-0-0	0	Y
MA10001	MATHEMATICS-I	3-1-0	4	D
ME10001	MECHANICS	3-1-0	4	B
PH11001	PHYSICS	3-1-0	4	B
PH19001	PHYSICS LAB.	0-0-3	2	A

For Semester 2 SGPA: 7.64 CGPA: 7.56

Subno	Name	L-T-P	CRD	GRD
CY11001	CHEMISTRY	3-1-0	4	C
CY19001	CHEMISTRY LAB.	0-0-3	2	A
EA10002	EXTRA ACADEMIC ACTIVITY-II	0-0-3	0	Y
EE11001	ELECTRICAL TECHNOLOGY	3-1-0	4	D
EE19001	ELECTRICAL TECHNOLOGY LAB.	0-0-3	2	B
HS13001	ENGLISH FOR COMMUNICATION	3-0-2	4	B
MA10002	MATHEMATICS-II	3-1-0	4	B
ME19001	INTRODUCTION TO MANUFACTURING PROCESSES	0-0-3	2	A

For Semester 3 SGPA: 8.26 CGPA: 7.79

Subno	Name	L-T-P	CRD	GRD
BS20001	SCIENCE OF LIVING SYSTEM	2-0-0	2	C
EA10003	EXTRA ACADEMIC ACTIVITY-III	0-0-3	0	A
EV20001	ENVIRONMENTAL SCIENCE	2-0-0	2	B
HS20001	ECONOMICS	3-1-0	4	B
MA20103	PARTIAL DIFFERENTIAL EQUATIONS	3-0-0	3	B
MT21105	METALLURGICAL THERMODYNAMICS AND KINETICS	3-1-0	4	B
MT21107	INTRODUCTION TO ENGINEERING MATERIALS	3-1-0	4	A
MT29005	METALLURGICAL THERMODYNAMICS AND KINETICS LAB.	0-0-3	2	A
MT29007	INTRODUCTION TO ENGINEERING MATERIALS LAB.	0-0-3	2	A

For Semester 4 SGPA: 8.68 CGPA: 8.01

Subno	Name	L-T-P	CRD	GRD
EA10004	EXTRA ACADEMIC ACTIVITY-IV	0-0-3	0	B
EC21101	BASIC ELECTRONICS	3-1-0	4	A
EC29001	BASIC ELECTRONICS LAB.	0-0-3	2	C
MA20106	PROBABILITY & STOCHASTIC PROCESSES	3-0-0	3	B
MT20006	MATERIALS PROCESSING	3-0-0	3	A
MT21008	DEFORMATION BEHAVIOUR OF MATERIALS	3-1-0	4	EX
MT21010	TRANSPORT PHENOMENA IN METALLURGICAL PROCESSES	3-1-0	4	B
MT29006	MATERIALS PROCESSING LAB.	0-0-3	2	A

For Semester 5 SGPA: 8.29 CGPA: 8.06

Subno	Name	L-T-P	CRD	GRD
HS30073	ENVIRONMENTAL SOCIOLOGY	3-0-0	3	B
MT31007	CREEP, FATIGUE AND FRACTURE	3-0-0	3	EX
MT31009	MECHANICAL WORKING OF MATERIALS	3-0-0	3	B
MT31015	PRINCIPLES OF EXTRACTIVE METALLURGY	3-1-0	4	B
MT31017	PHASE TRANSFORMATION AND HEAT TREATMENT OF MATERIALS	3-1-0	4	C
MT39005	HEAT TREATMENT OF MATERIALS LAB.	0-0-3	2	A
MT39009	MECHANICAL TESTING AND WORKING LAB.	0-0-3	2	A

For Semester 6 SGPA: 8.83 CGPA: 8.20

Subno	Name	L-T-P	CRD	GRD
MA60002	DATA STRUCTURE AND ALGORITHM	3-1-0	4	A
MT31012	MATERIAL CHARACTERIZATION	3-0-0	3	EX
MT31022	X-RAY DIFFRACTION & TRANSMISSION ELECTRON MICROSCOPY	3-1-0	4	B
MT32008	IRON MAKING & STEELMAKING	3-1-0	4	C
MT39004	MATERIALS CHARACTERISATION LAB.	0-0-3	2	A
MT39022	X-RAY DIFFRACTION & TRANSMISSION ELECTRON MICROSCOPY LABORATORY	0-0-3	2	A
MT41009	COMPUTER APPLICATIONS IN METALLURGICAL PROCESSES	3-0-0	3	EX
MT49009	COMPUTER APPLICATIONS IN METALLURGICAL PROCESSES LABORATORY	0-0-3	2	EX

For Semester 7 SGPA: 8.67 CGPA: 8.26

Subno	Name	L-T-P	CRD	GRD
AI42001(#1)	MACHINE LEARNING FOUNDATIONS AND APPLICATIONS	3-0-3	5	EX
CS60021	SCALABLE DATA MINING	3-0-0	3	C
MT41013	CORROSION & ENVIRONMENTAL DEGRADATION OF MATERIALS	3-0-0	3	A
MT41023	COMPOSITE MATERIALS	3-0-0	3	B
MT41037	POWDER METALLURGY	3-0-0	3	B
MT61151	DISLOCATION THEORY	3-1-0	4	A

For Semester 8 SGPA: 8.43 CGPA: 8.28

Subno	Name	L-T-P	CRD	GRD
AI60002	MACHINE LEARNING FOR EARTH SYSTEM SCIENCES	3-0-0	3	A
CS60075	NATURAL LANGUAGE PROCESSING	3-0-0	3	B
CS60078	COMPLEX NETWORK THEORY	3-0-0	3	A
EP60020	FOUNDATIONS OF ENTREPRENEURSHIP	3-0-0	3	D
MT41034	METALLURGICAL FAILURE ANALYSIS	3-0-0	3	A
MT60006	GRAIN BOUNDARIES AND INTERFACES	3-0-0	3	A
MT60148	MAGNETISM & MAGNETIC MATERIALS	3-0-0	3	A

For Semester 9 SGPA: 8.79 CGPA: 8.35

Subno	Name	L-T-P	CRD	GRD
AI61005(#1)	ARTIFICIAL INTELLIGENCE: FOUNDATIONS AND APPLICATIONS	3-1-0	4	C
MA41031	STOCHASTIC PROCESSES IN FINANCE	3-1-0	4	EX
MT48001	INDUSTRIAL TRAINING	0-0-0	2	EX
MT57003	PROJECT III	0-0-15	12	A
MT58001	COMPREHENSIVE VIVA VOCE	0-0-0	2	C
MT61141	SOLIDIFICATION PROCESSING	3-1-0	4	A

For Semester 10 SGPA: 9.32 CGPA: 8.44

Subno	Name	L-T-P	CRD	GRD
AI60004(#1)	BIG DATA PROCESSING	3-0-0	3	A
MT57004	PROJECT IV	0-0-22	13	EX
MT58002	COMPREHENSIVE VIVA VOCE	0-0-0	2	B
MT60002	METALLURGICAL KINETICS	3-1-0	4	B

Additional subjects taken into account for earning a Micro-Specialisation

Subno	Name	L-T-P	CRD	Semno	GRD
AI61002	DEEP LEARNING FOUNDATIONS AND APPLICATIONS	3-1-0	4	6	C

Micro-Specialisation in : ARTIFICIAL INTELLIGENCE AND APPLICATIONS GPA: 8.31

#1 sign against a major curricular subject indicates that it has been taken into account for Micro-Specialisation

Details of other additional subjects

Subno	Name	L-T-P	CRD	Semno	GRD
CS40003	DATA ANALYTICS	3-0-0	3	5	A
CS31702	COMPUTER ARCHITECTURE AND OPERATING SYSTEM	4-0-0	4	8	A
MA61010	COMPUTER NETWORKS	3-1-0	4	10	C
CS40032	PRINCIPLES OF PROGRAMMING LANGUAGES	3-0-0	3	10	B

Total Additional Credits Taken: 18 **Total Additional Credits Cleared: 18**
GPA in Additional Subjects: 7.94

Total Credits Taken in Major Curriculum: 227 Total Credits Cleared: 227 CGPA: 8.44

Date of Issue: 16 June 2022

Checked by Superintendent (Academic):

Deputy Registrar (Academic):

Digitally signed by Gopal Sinha
Date: 2022.06.16 12:15:05 +05:30

GENERAL INFORMATION

1. **Abbreviations used in the grade card stands for:**

   LTP = Lecture, Tutorial, Practical; figures shown under this column indicate weekly contact hours prescribed for the Subject

   CRD = Credit carried by the Subject

   GRD = Grade obtained by student in the Subject

   CGPA = Cumulative Grade Point Average

   SGPA = Semester Grade Point Average

   GPA = Grade Point Average

2. **English is the medium of instruction at all levels.**

3. **Extra Academic Activity (EAA) subjects include NCC, NSS and NSO, NCA.**

4. **The seven-point letter grade system followed by the institute in assessing student's performance in a subject is as follows:**

Performance	Letter Grade	Grade Point Value Per Credit
Excellent	EX	10
Very Good	A	9
Good	B	8
Fair	C	7
Average	D	6
Pass	P	5

5. **Highest possible CGPA in the system is 10.00. No rank or class or division is awarded. The CGPA may be multiplied by a factor of 10 to obtain the numerical percentage for those students who have graduated in 2020-2021 or earlier.**
   The Conversion formula to be effective for all students from the graduation year 2021-2022 is as follows:
   Percentage of Marks=(20/7)*{(4*x)-5}, [where, x is CGPA]

6. **(I)** **A student is awarded a B.Tech. (Hons.); B.Arch. (Hons.); Dual Degree for B.Tech. (Hons.) & M.Tech.; Integrated B.Sc. (Hons.) and M.Sc.; Integrated B.Sc. (Hons.) and M.Sc. & M. Tech.; 4 Yrs. B.S.; 2 Yrs. or 3 Yrs. M.Sc. on completion of the curricular requirement with a minimum CGPA of 6.00.**

   (II) **The credits and grades obtained in additional subjects optionally taken by a student on satisfying the prescribed conditions do not contribute towards the CGPA.**

   (III) **The CGPA obtained by a student in additional subjects is computed separately. For the award of MINOR degree in a particular discipline, the credits and grades of the additional and other subjects that are taken into account are separately indicated along with the computed GPA.**

   (IV) **Minimum GPA for a Minor in any discipline is 6.00.**

7. **Duration of Course**

   Minimum duration of the B.Tech. (Hons.); B.Arch. (Hons.); Dual Degree for B.Tech. (Hons.) & M.Tech. (or MBA); Integrated B.Sc. (Hons.) and M.Sc.; Integrated B.Sc. (Hons.) and M.Sc. &M. Tech.; B.S. and M.Sc. degree is given on the front cover page.
   However, with the approval of the Senate a slow paced student may take more semesters to complete the degree requirements.

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

Statement of Academic Performance

of

ARZA AKHIL

Five Year Programme in

BACHELOR OF TECHNOLOGY (HONOURS)
AND
MASTER OF TECHNOLOGY