



Mahatma Gandhi University

Priyadarsini Hills P.O., Kottayam, Kerala 686 560

(Established by Kerala State Legislature by Notification No.3431/Log. C1/85/Law, dated 17th April 1985)

Section: PGCSS II

DATE: 20-10-2024

OFFICIAL TRANSCRIPT OF MARKS CUM GRADE POINTS

Name of the Candidate	: ALKHA P GEORGE
Name of the College	: BHARATA MATA COLLEGE THRIKKAKARA,ERNAKULAM,KERALA,INDIA
Permanent Register Number (PRN)	: 210011023191
Date of Birth	: 12 June 2000
Degree	: MASTER OF SCIENCE
Programme	: SPACE SCIENCE
Duration of the Programme	: 2 YEARS (FOUR SEMESTERS)
Period of Study	: 2021-2023
Medium of Instruction	: ENGLISH

DETAILS OF PROGRAMME RESULT

Course Code	Course Title		MARKS											
			External		Internal		Total							
		Credit	Awarded	Maximum	Awarded	Maximum	Awarded	Maximum	Grade Awarded(G)	Grade Point (GP)	Credit Point	Minimum Grade for Pass	Maximum Grade Point	Maximum Grade

FIRST SEMESTER JULY 2022

PHO10101	Mathematical Methods in Physics-I	4	2.20	5	3.80	5	2.60	5	C+	2	10.40	D	20	A+
PHO10102	Classical Mechanics	4	3.67	5	4.00	5	3.75	5	B+	3	15.00	D	20	A+
PHO10103	Electrodynamics	4	2.57	5	4.40	5	3.03	5	B	3	12.12	D	20	A+
PHO30101	Introduction to Atmospheric Science and Space Physics	4	3.43	5	4.40	5	3.67	5	B+	3	14.68	D	20	A+

TC : 16

SGPA: 3.26

SG: B

Semester Pass

SECOND SEMESTER JULY 2023

PHO10201	Mathematical Methods in Physics-II	4	3.60	5	4.00	5	3.70	5	B+	3	14.80	D	20	A+
PHO10202	Quantum Mechanics-I	4	2.00	5	3.80	5	2.45	5	C	2	9.80	D	20	A+

PHO10203	Statistical Mechanics	4	3.33	5	3.80	5	3.45	5	B	3	13.80	D	20	A+
PHO10204	Condensed Matter Physics	4	2.00	5	4.40	5	3.45	5	B	3	10.40	D	20	A+
PHO30201	General Physics Practicals	4	4.53	5	4.60	5	4.55	5	A+	5	18.20	D	20	A+
PHO30202	Space Physics Practicals	4	4.43	5	4.60	5	4.47	5	A	4	17.88	D	20	A+

TC: 24 SGPA: 3.54 SG: B+

Semester Pass

THIRD SEMESTER NOVEMBER 2023

PHO10301	Quantum Mechanics-II	4	2.77	5	3.40	5	2.93	5	C+	2	11.72	D	20	A+
PHO10302	Computational Physics	4	2.00	5	4.00	5	2.50	5	C+	2	10.00	D	20	A+
PHO30301	Spectroscopy and Lasers	4	2.87	5	4.00	5	2.50	5	B	3	13.00	D	20	A+
PH880301	Solar and Astrophysics (Programme Elective Courses)	4	3.50	5	3.60	5	3.53	5	B+	3	14.12	D	20	A+

TC 16 SGPA : 3.05 SG: B

Semester Pass

FOURTH SEMESTER APRIL 2024

PHO10401	Nuclear and Particle Physics	4	2.37	5	4.00	5	2.78	5	C+	2	11.12	D	20	A+
PH030401	Astronomy Practicals	4	4.73	5	4.20	5	4.60	5	A+	5	18.40	D	20	A+
PH030402	Physics Computation Practicals	4	4.80	5	3.60	5	4.50	5	A+	5	18.00	D	20	A+
PH880402	Plasma Physics Programme Elective Course	4	2.30	5	3.40	5	2.58	5	C+	2	7.74	D	20	A+

PH880403	Instrumentation in Space Physics and Astrophysics Programme Elective Course	4	2.83	5	4.00	5	3.12	5	B	3	9.36	D	20	A+
PH030403	Project	4	4.33	5	4.60	5	4.40	5	A	2	17.60	D	20	A+
PH030404	Comprehensive Viva voce	4	3.80	5	3.60	5	3.75	5	B+	3	7.50	D	10	A+

TC: 24	SGPA: 3.74	SG: B+	Semester Pass
--------	------------	--------	---------------

Total Credits :80	CGPA:3.45	Grade:B
-------------------	-----------	---------

Certified that this is the OFFICIAL TRANSCRIPT OF MARKS CUM GRADE POINTS issued to ALKHA P GEORGE who passed the MASTER'S IN SPACE SCIENCE degree Examination in April 2024 with B Grade.

Digitally signed by

MADHUKUMAR M

JOINT REGISTRAR (EXAMS) & AUTHENTICATION OFFICER



Evaluation :

Direct Grading System based on a 6-point scale is used to evaluate the Internal and External examinations taken by the students for various courses of study.

The evaluation scheme for each course consists of Continuous Evaluation (CE) (Internal Evaluation) and End Semester Evaluation (ESE) (External Evaluation) in the ratio 1:3.

No separate minimum is required for internal evaluation for a pass, but a minimum C grade is required for a pass in an external evaluation. However, a minimum C grade is required for pass in a course.

Calculation of Weighted Grade Point Average (WGPA)

Weighted Grade Point Average (WGPA) is an index of the performance of a student in a course. It is obtained for CE and ESE separately.

Weighted Grade Point Average (WGPA) = Sum of Weighted Grade Points / Total Weights

Calculation of Grade Point Average (GPA)

Grade Point Average (GPA) is an index of the performance of a student in a course. Internal and External components are separately graded and the combined grade point with weightage 1 for internal and 3 for external is applied to calculate the GPA of each course.

Grade Point Average for a Course (GPA) = (WGPA for CE + 3 x WGPA for ESE) / 4

Calculation of Semester Grade Point Average (SGPA)

Semester Grade Point Average - SGPA (Sj) = $\sum (Ci \times Gi) / \sum Ci$

(SGPA = Total Credit Points awarded in a Semester / Total Credits of the Semester)

Calculation of Cumulative Grade Point Average (CGPA) for the whole Programme

The overall grade for a programme for certification shall be based on

Cumulative Grade Point Average (CGPA) on a 7-point scale. A

minimum CGPA of 2.00 or overall grade of C is mandatory for a pass in a programme.

Cumulative Grade Point Average (CGPA) = $\sum (Ci \times Si) / \sum Ci$

CGPA = Total Credit Points Awarded in all Semesters / Total Credits of the Programme.

Performance Grading

Students are graded based on their performance (GPA/SGPA/CGPA) at the examination on a 7-point scale

Grade	Grade Points	Range
A+	5	4.50 to 5.00
A	4	4.00 to 4.49
B	3	3.00 to 3.99
C	2	2.00 to 2.99
D	1	0.01 to 1.99
E	0	0.00

Range	Grade	Indicator
4.50 to 5.00	A+	Outstanding
4.00 to 4.49	A	Excellent
3.50 to 3.99	B+	Very Good
3.00 to 3.49	B	Good(Average)
2.50 to 2.99	C+	Fair
2.00 to 2.49	C	Marginal(Pass)
Up to 1.99	D	Deficient(Fail)

Conversion Table:
GPA/SGPA/CGPA into Percentage :
(GPA/SGPA/CGPA) x 20



Mahatma Gandhi University

Priyadarsini Hills P.O., Kottayam, Kerala - 686 560

(Established by Kerala State Legislature by Notification No.3431/Leg. C1/85/Law, dated 17th April 1985)



Section : CBCSS II

DATE : 20-10-2021

OFFICIAL TRANSCRIPT OF MARKS CUM GRADE POINTS

Name of the Candidate : ALKHA P GEORGE

Name of the College : ALPHONSA COLLEGE, PALA, KOTTAYAM DISTRICT, KERALA STATE

Permanent Register Number (PRN) : 180021042336

Date of Birth : 12 June 2000

Degree : BACHELOR OF SCIENCE

Programme : PHYSICS

Stream : MODEL II (COMPUTER APPLICATIONS)

Duration of the Programme : 3 YEARS (SIX SEMESTERS)

Period of Study : 2018-2021

Medium of Instruction : ENGLISH

DETAILS OF PROGRAMME RESULT

Course Code	Course Title	Credits (C)	Marks						Grade Awarded (G)	Grade Point (GP)	Credit Point (C x GP)	Minimum Grade for a Pass	Maximum Grade Point	Maximum Grade
			External		Internal		Total							
			Awarded (E)	Maximum	Awarded (I)	Maximum	Awarded (E+I)	Maximum						
FIRST SEMESTER December 2018														
EN1CCT01	Common Course I English - Fine - tune Your English	4	46	80	15	20	61	100	B	6	24	D	10	A
ML1CCT09	Common Course II Malayalam - Katha, Kavitha	4	59	80	20	20	79	100	A	8	32	D	10	A+
PH1CRT01	Core Course Methodology and Perspectives of Physics	2	40	60	14	15	54	75	B+	7	14	D	10	A-
CA1VOT01	Vocational Course Computer Science - Computer Fundamentals*	2	63	80	17	20	80	100	A	8	16	D	10	A+
CA1VOT02	Computer Networks & Internet Technologies	2	42	60	14	15	56	75	A	8	16	D	10	A+
MM1CMT01	Complementary Course Mathematics - Partial Differentiation, Matrices, Trigonometry and Numerical Methods	3	37	80	18	20	55	100	B	6	18	D	10	A
TC: 17			SCPA: 7.06			SG : B+			120			Semester Pass		
SECOND SEMESTER May 2019														
EN2CCT03	Common Course I English-Issues That Matter	4	45	80	19	20	64	100	B	6	24	D	10	A+
ML2CCT10	Common Course II Malayalam - Gadyaparichayam	4	67	80	19	20	86	100	A+	9	36	D	10	A
PH2CRT02	Core Course Mechanics and Properties of Matter	2	20	60	14	15	34	75	C	5	10	D	10	A+
PH2CRP01	Mechanics and Properties of Matter (P)	2	27	40	10	10	37	50	B+	7	14	D	10	A+
CA2VOT03	Vocational Course Word and Data processing Packages	2	50	80	19	20	69	100	B+	7	14	D	10	A-
CA2VOT04	Programming in ANSI C	2	30	60	14	15	44	75	B	6	12	D	10	A+
CA2VOP01	Introduction to Computers & ANSI C Programming (P)	2	35	40	10	10	45	50	A+	9	18	D	10	A+
MM2CMT01	Complementary Course Mathematics - Integral Calculus and Differential Equations	3	29	80	17	20	46	100	C	5	15	D	10	A+
TC: 21			SCPA: 6.81			SG : B+			143			Semester Pass		
THIRD SEMESTER October 2019														
EN3CCT05	Common Course I English-Literature and/as Identity	4	63	80	18	20	81	100	A	8	32	D	10	A+
PH3CRT03	Core Course Optics, Laser and Fiber Optics	3	30	60	13	15	43	75	B	6	18	D	10	A+
CA3VOT05	Vocational Course Concepts of Object Oriented Programming	4	36	60	14	15	50	75	B+	7	28	D	10	A+
CA3VOT06	Operating System	3	53	60	14	15	67	75	A+	9	27	D	10	A+
MM3CMT01	Complementary Course Mathematics - Vector Calculus, Analytic Geometry and Abstract Algebra	4	38	80	18	20	56	100	B	6	24	D	10	A+
TC: 18			SCPA: 7.17			SG : B+			129			Semester Pass		



Mahatma Gandhi University

Priyadarsini Hills P.O., Kottayam, Kerala - 686 560

(Established by Kerala State Legislature by Notification No.3431/Leg. C1/85/Law, dated 17th April 1985)



FOURTH SEMESTER March 2020

EN4CCT06	Common Course I English-Illuminations	4	48	80	20	20	68	100	B+	7	28	D	10	A+
PH4CRT04	Core Course Semiconductor Physics	3	26	60	12	15	38	75	C	5	15	D	10	A+
PH4CRP02	Optics and Semiconductor Physics (P)	2	33	40	8	10	41	50	A	8	16	D	10	A+
CA4VOT07	Vocational Course Visual Basic Programming	4	31	60	14	15	45	75	B	6	24	D	10	A+
CA4VOT08	Web Development and PHP Programming	3	30	60	14	15	44	75	B	6	18	D	10	A+
CA4VOP02	Data Processing Packages, Operating System and Visual Basic Programming (P)	2	37	40	10	10	47	50	A+	9	18	D	10	A+
CA4VOP03	C++ Programming and Web Development (P)	2	38	40	10	10	48	50	S	10	20	D	10	A+
MM4CMT01	Complementary Course Mathematics - Fourier Series, Laplace Transform and Complex Analysis	4	41	80	17	20	58	100	B	6	24	D	10	A+
TC: 24 SCPA: 6.79 SG: B+ 163 Semester Pass														

FIFTH SEMESTER January 2021

PH5CRT05	Core Course Electricity and Electrodynamics	3	29	60	13	15	42	75	B	6	18	D	10	A+
PH5CRT06	Classical and Quantum Mechanics	3	27	60	14	15	41	75	B	6	18	D	10	A+
PH5CRT07	Digital Electronics and Programming	3	27	60	14	15	41	75	B	6	18	D	10	A+
PH5CRT08	Environmental Physics and Human Rights	4	41	60	14	15	55	75	B+	7	28	D	10	A+
MM5OPT02	Open Course Applicable Mathematics	3	80	80	18	20	98	100	S	10	30	D	10	A+
TC: 16 SCPA: 7.00 SG: B+ 112 Semester Pass														

SIXTH SEMESTER April 2021

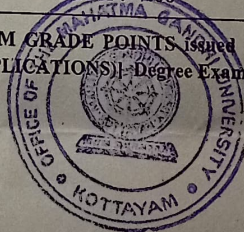
PH6CRT09	Core Course Thermal and Statistical Physics	3	30	60	15	15	45	75	B	6	18	D	10	A+
PH6CRT10	Relativity and Spectroscopy	3	24	60	13	15	37	75	C	5	15	D	10	A+
PH6CRT11	Nuclear, Particle and Astrophysics	3	30	60	15	15	45	75	B	6	18	D	10	A+
PH6CRT12	Solid State Physics	3	37	60	13	15	50	75	B+	7	21	D	10	A+
PH6CRP03	Electricity, Magnetism and Laser (P)	2	40	40	9	10	49	50	S	10	20	D	10	A+
PH6CRP04	Digital Electronics (P)	2	36	40	8	10	44	50	A+	9	18	D	10	A+
PH6CRP05	Thermal Physics, Spectroscopy and C++ programming (P)	2	37	40	9	10	46	50	A+	9	18	D	10	A+
PH6CRP06	Acoustics, Photonics and Advanced Semiconductor Physics (P)	2	36	40	10	10	46	50	A+	9	18	D	10	A+
PH6PRP01	Project I Project and Industrial Visit (P)	1	79	80	19	20	98	100	S	10	10	D	10	A+
PH6CBT05	Choice Based Core Course Astronomy & Astrophysics	3	69	80	19	20	88	100	A+	9	27	D	10	A+
TC: 24 SCPA: 7.63 SG: A 183 Semester Pass														

Total Credits : 120

CCPA : 7.08

Grade : B+

Certified that this is the OFFICIAL TRANSCRIPT OF MARKS CUM GRADE POINTS issued to ALKHA P GEORGE who passed the BACHELOR OF SCIENCE, PHYSICS [MODEL II (COMPUTER APPLICATIONS)] Degree Examination in April 2021 with B+ GRADE.



MADHU KUMAR M
JOINT REGISTRAR I (EXAMS) &
AUTHENTICATION OFFICER

30/50



Mahatma Gandhi University

Priyadarsini Hills P.O., Kottayam, Kerala - 686 560

(Established by Kerala State Legislature by Notification No.3431/Leg. C1/85/Law, dated 17th April 1985)



SG = Semester Grade, SCPA = Semester Credit Point Average, CCPA=Cumulative Credit Point Average, TC = Total Credit

*Improvement, **Reappearance

Description of the Evaluation Process

Grade and Grade Point:

The Evaluation of each Course comprises of Internal and External Components in the ratio 1:4 for all Courses. Grades and Grade Points are given on a 10-Point Scale based on the Percentage of Total Marks (Internal + External) as given in Table I

Credit Point and Credit Point Average

Grades for the different Semesters and overall Programme are given based on the corresponding CPA, as shown in Table II

Credit Point (CP) of a course is Calculated using the formula $CP = C \times GP$, Where C is the Credit; GP is the Grade Point.

Credit Point Average(CPA) of a course/Semester or Programme, is calculated using the formula $CPA \text{ or } SCPA \text{ or } CCPA = TCP/TC$, Where TCP is the Total Credit Point; TC is the Total Credit.

In the case of an Individual Course, $CPA = GP$.

SG=Semester grade.

Conversion formula for conversion of SCPA and CCPA into percentage.

1. For SCPA into percentage, multiply the secured SCPA by 10.

2. For conversion of CCPA into percentage, multiply the secured CCPA by 10.

Note : A separate minimum of 30% marks each for internal and external (for both theory and practical) and aggregate minimum of 35% marks (equivalent to CPA of 4 / Grade D) are required for a pass for a course. If a candidate secures F Grade for any one of the courses offered in a Semester/Programme, only F Grade will be awarded for that Semester/Programme until he/she improves this to D Grade or above within the permitted period.

Table I

% of Marks	Grade	GP
Equal to 95 and above	S Outstanding	10
Equal to 85 and < 95	A+ Excellent	9
Equal to 75 and < 85	A Very Good	8
Equal to 65 and < 75	B+ Good	7
Equal to 55 and < 65	B Above Average	6
Equal to 45 and < 55	C Satisfactory	5
Equal to 35 and < 45	D Pass	4
Below 35	F Failure	0
	Ab Absent	0

Table II

CPA	SG
Equal to 9.5 and above	S Outstanding
Equal to 8.5 and < 9.5	A+ Excellent
Equal to 7.5 and < 8.5	A Very Good
Equal to 6.5 and < 7.5	B+ Good
Equal to 5.5 and < 6.5	B Above Average
Equal to 4.5 and < 5.5	C Satisfactory
Equal to 4 and < 4.5	D Pass
Below 4	F Failure

Reference No : 136934

DDFS File No & Section Name : 136934 CBCSS2

