

Raghu Kumar
Kanan

ROLL NO 09E8142

COMP. NO A154-087110

SERIAL NO K 0287237

Board of Secondary Education, Orissa



HIGH SCHOOL CERTIFICATE EXAMINATION (Regular/EX-RAGHUNATH)

I certify that KANAN KUMAR PAIRG Son/Daughter
of RAGHUNATH PAIRG born on 07 JUNE 19 SEVENTY NINE
passed the High School Certificate Examination held in the month
of APRIL 1994 from GOVT HIGH SCHOOL, BALLIGUDA
and was placed in the SECOND Division.
SUBJECTS OF EXAMINATION



- 1. ORIYA
- 2. ENGLISH
- 3. HINDI
- WORK EXPERIENCE GRADE - A
- 4. MATHEMATICS (MTA & MTG)
- 5. SCIENCE (SCP & SCL)
- 6. SOCIAL SCIENCE (SSH & SSE)
- ART EDUCATION, HEALTH & PHYSICAL EDUCATION GRADE - B

THE 31-OCT-1995

Comptroller

Pradyumn
Head Master Balliguda

Secretary



BOARD OF SECONDARY EDUCATION, ORISSA

Disposal No. 34111

Dated 11/8/2007

The following marks were awarded to him/her at the Annual/Supplementary High School Certificate Examination 132A

Roll No 09EB142

Name Kanwar Kumar Patra

Subject	Full Marks	Marks Awarded
1. First Language (<u>Oreya</u>)	100	34
2. Second Language (English/Hindi)	100	38
3. Third Language (<u>Hindi</u>)	100	78
4. Math. Paper - I (MTA)	75	71
5. Math. Paper - II (MTG)	75	57
6. Science Paper - I (SCP)	75	43
7. Science Paper - II (SCL)	75	43
8. Social Science Paper - I (SSH)	75	24
9. Social Science Paper - II (SSG)	75	35
Total :	750	423

(Total marks awarded : Four Hundred Twenty Three) Only.

Grades awarded in :

(i) Work Experience A

(ii) Art Education A

(iii) Health & Physical Education B

Issuing Assistant

Section Officer

Cuttack/Bhubaneswar/Balasore

Sr. Asst.

For SECRETARY

Baripada/Bhubaneswar/Sambalpur

Date 11/8/07



Kanwar Kumar Patra

ROLL NO.
REC'D NO.

202LB014
383017/94

SERIAL NO. 97152800

COUNCIL OF HIGHER SECONDARY EDUCATION ORISSA, BHUBANESWAR

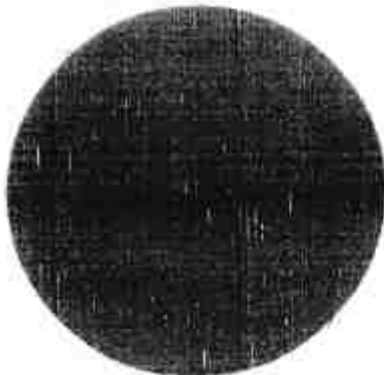


HIGHER SECONDARY EXAMINATION CERTIFICATE

I certify that KANAN KUMAR PATRO
of ADIVASI COLLEGE, BALIGUDA has passed the Higher Secondary
Examination in SCIENCE held in the month of MARCH 1997
and was placed in the SECOND Division.

SUBJECTS OF EXAMINATION

COMPULSORY : ENGLISH
MIL ORIYA
OPTIONALS : PHYSICS
CHEMISTRY
MATHEMATICS
EXTRA OPTIONAL : BIOLOGY



Kanan Kumar Patro

Sub
PRINCIPAL

Burkoti

Address: ...

2


COUNCIL OF HIGHER SECONDARY EDUCATION, ORISSA, BHUBANESWAR
MARKS SHEET CUM-PROVISIONAL PASS CERTIFICATE
HIGHER SECONDARY EXAMINATION
KANAN KUMAR PATRO

THIS IS TO CERTIFY THAT

OF **ADIVASI COLLEGE, BALIGUDA**

HAS PASSED THE **ANNUAL EXAM 1997** AND WAS PLACED IN **SECOND** DIVISION

THE SUBJECTS IN WHICH THE CANDIDATE WAS EXAMINED AND MARKS OBTAINED ARE AS UNDER :

ROLL NO.	REGD NO.	STREAM											
202LB014	383017/94	SCIENCE (REGULAR)											
SUBJECTS		MAX. MARKS		MARKS OBTAINED									
		PAP 1	PAP 2	PAP 1	PAP 2								
ENGLISH		100	100	31	31								
MIL ORIYA		100		49									
PHYSICS		75	75	38	29								
PHYSICS (PRAC)		50		44									
CHEMISTRY		75	75	25	39								
CHEMISTRY (PRAC)		50		38									
MATHS		100	100	76	91								
BOTANY (EOP)		75		32									
BOTANY (PRAC) (EOP)		25		11									
ZOOLOGY (EOP)		75		13									
ZOOLOGY (PRAC) (EOP)		25		14									
GRAND TOTAL WITHOUT EXTRA-OPTIONAL IN WORDS		FOUR NINE ONE		GRAND TOTAL WITH EXTRA-OPTIONAL									
		491		496									
<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">PASS MARKS</td> <td style="width: 33%;">DIVISIONS</td> <td style="width: 33%;"></td> </tr> <tr> <td>-Theory 30%</td> <td>-First 60%</td> <td rowspan="3" style="text-align: center; vertical-align: middle;"> <i>Gen</i> PRINCIPAL Advasi College Balliguda HEAD OF INSTITUTION </td> </tr> <tr> <td>-Practicals 40%</td> <td>-Second 50%</td> </tr> <tr> <td>-Aggregate 30%</td> <td>-Third 35%</td> </tr> </table>		PASS MARKS	DIVISIONS		-Theory 30%	-First 60%	<i>Gen</i> PRINCIPAL Advasi College Balliguda HEAD OF INSTITUTION	-Practicals 40%	-Second 50%	-Aggregate 30%	-Third 35%	 R.C. ROUT CONTROLLER OF EXAMINATIONS	
PASS MARKS	DIVISIONS												
-Theory 30%	-First 60%	<i>Gen</i> PRINCIPAL Advasi College Balliguda HEAD OF INSTITUTION											
-Practicals 40%	-Second 50%												
-Aggregate 30%	-Third 35%												
DATE OF PUBLICATION : 26-JUN-1997													

Karan Kumar Patro



Berhampur



University

PROVISIONAL CERTIFICATE

This is to certify that

Kanan Kumar Patro

Roll No. PIB9 1296 has passed the B.Sc. (Honours)

examination of this University held in the month of April, 2000

appearing as a collegiate candidate from Govt. Science College,

Phulbani / ~~was a collegiate candidate~~ and that

he/she was placed in **Ist Class Honours (Distinction)**

Subjects:

- Physics
- Chemistry
- Mathematics (Honours)

Kanan Kumar Patro

DATE 07/07/2000
 PRINCIPAL
 Govt. Science College
 Phulbani

VERIFIED

CONTROLLER OF EXAMINATIONS

Berhampur University

MARK SHEET

Examination : First TDC B.Sc. (Honours) Month & Year : March, 1999
 Name : Kanan Kumar Patro Roll No. : PI09 1296
 College : Govt. Sc.College, Chutbani Regn. No. : 6223/97

Subject/Papers	Marks Obtained	Maximum Marks
English	15	50
Oriya	24	50
Environmental Studies	37	100
Physics		
Paper - 1	33	75
Paper - 2	12	75
Paper - 3 (Practical)	33	50
Chemistry		
Paper - 1	28	75
Paper - 2	28	75
Paper - 3 (Practical)	37	50
Honours Subject		
Mathematics		
Paper - 1	80	100
Paper - 2	80	100
Paper - 3	63	100
Paper - 4	48	100
T o t a l	518	1000

Kanan Kumar Patro

TOTAL IN WORDS Five Hundred Eighteen

RESULT **PASS**

DATE 03/12/1999

VERIFIED

CONTROLLER OF EXAMINATIONS

Berhampur University

MARK SHEET

Examination : Final B.C. B.Sc. (Honours) Month & Year : April, 2000
 Name : Kanan Kumar Patro Roll No. : 2189 1296
 College : Govt. Science College, Phulbani Regn. No. : 6223/97

Subject/Papers	Marks Obtained	Maximum Marks
Physics		
Paper - 4	37	100
Paper - 5 (Practical)	78	100
Chemistry		
Paper - 4	30	100
Paper - 5 (Practical)	80	100
Honours Subject		
Mathematics		
Paper - 5	89	100
Paper - 6	65	100
Paper - 7	64	100
Paper - 8	95	100
=====		
Total	538	800
Aggregate of Part-I Marks	518	1000
=====		
Grand Total	1056	1800
Aggregate of Honours Marks	584	800

Kanan Kumar Patro

TOTAL IN WORDS One Thousand Fifty Six

RESULT ****First Class Honours (Distinction)****

DATE 07/07/2000

VERIFIED

CONTROLLER OF EXAMINATIONS

Utkal University

No. 372

Utkal University

DIPLOMA FOR MASTER OF SCIENCE



ଉତ୍କଳ ବିଶ୍ୱବିଦ୍ୟାଳୟ

ଅଧ୍ୟାପକ ବିଜ୍ଞାନ ଉପାଧି ପତ୍ର

This is to certify that

ଏହା ଉପରେ ମହିତା _____ ମଧ୍ୟ _____ ମାସରେ ଅନୁଷ୍ଠିତ

Praman *Pranava* *Datta*

ଅଧ୍ୟାପକ ବିଜ୍ଞାନ

of University Post-Graduate Department of *Mathematics*

who passed the Examination for the degree of

MASTER OF SCIENCE

held in the month of *May*, 19*2022*, with

the following special papers and was placed in the

First Class in *Mathematics*

was this day admitted to the Degree.

ଅର୍ଥାତ୍ ଏହି ଉପାଧି ପ୍ରତୀତ ହେଲା ।।

ଶାନ୍ତ କୁମାର ଦାସ

SPECIAL PAPERS :

1. *Mathematical Analysis*

2. *Fluid Dynamics*

3. *Symplectic Theory*

UTKAL UNIVERSITY

WAS SIGNED

The Secy, Utkal University, Bhubaneswar

Prasanna Kumar Das
Vice-Chancellor



Prasanna Kumar Das

୧୧ ୨୦୨୧ ମସିହା _____ ମଧ୍ୟ _____ ମାସରେ ଅନୁଷ୍ଠିତ

ଉପାଧି ପରୀକ୍ଷାରେ ନିମ୍ନଲିଖିତ ସ୍ୱତନ୍ତ୍ର ପତ୍ର ସହ

ଅଭିଳାଷୀ _____ ରେ _____ ପ୍ରଥମ ଶ୍ରେଣୀରେ ଉତ୍ତୀର୍ଣ୍ଣ

ଉତ୍କଳ ବିଶ୍ୱବିଦ୍ୟାଳୟ ସ୍ୱୀକୃତିରେ _____ ଅଭିଳାଷୀ _____ ବିଭାଗର

ଶାନ୍ତ କୁମାର ଦାସ

ସ୍ୱତନ୍ତ୍ର ପତ୍ର ।

୧. ଅଧ୍ୟାପକ ବିଜ୍ଞାନ

୨. ଉତ୍କଳ ବିଶ୍ୱବିଦ୍ୟାଳୟ

ଉପାଧି ପତ୍ର

ଉପାଧି ପତ୍ର

ଉପାଧି ପତ୍ର

୧୧ ୨୬ ୧୧ ୧୧ ୨୦୨୩

୧୧ ୨୬ ୧୧ ୧୧ ୨୦୨୩

୧୧ ୨୬ ୧୧ ୧୧ ୨୦୨୩



UTKAL UNIVERSITY

MARK SHEET

Sl. No.: 118020026

Roll No.: 11818V2K4026

Examination MASTER OF SCIENCE (MATHEMATICS) (4TH SEM) EXAM., 2002 Registration No.: 10404/2K

Name: **KANAN KUMAR PATRO**

College / Dept. P.G. DEPARTMENT OF MATHEMATICS, UTKAL UNIVERSITY, BBSR

Papers	Subject	UM	CM	Maximum Marks	Marks Obtained
PAPER-1	ALGEBRA	10	06	50	16
PAPER-2	CALCULUS OF SEVERAL VARIABLES & MANIFOLDS	14	06	50	20
PAPER-3	NUMERICAL ANALYSIS-I	27	11	50	38
PAPER-4	NUMERICAL SOLUTION OF PARTIAL DIFF. EQ. -I	23	11	50	34
PAPER-5	FLUID DYNAMICS-II	28	11	50	39
TOTAL OF 4TH SEMESTER :				250	147
TOTAL OF 3RD SEMESTER :				250	168
TOTAL OF 2ND SEMESTER :				250	158
TOTAL OF 1ST SEMESTER :				250	172
Result: FIRST CLASS (SIX FOUR FIVE)				TOTAL	645

[Signature]
 HEAD
 Department of Mathematics
 Utkal University Van Vihar
 Bhubaneswar.

H. O. D./Principal of the College

[Signature]
 Keshava

Controller of Examinations

[Signature]
 Kanan Kumar Patro

सं.
No. 23931

अनुक्रमिक
Enrolment No. 071251764

इन्दिरा गांधी राष्ट्रीय मुक्त विश्वविद्यालय
INDIRA GANDHI NATIONAL OPEN UNIVERSITY

प्रमाणित किया जाता है कि *Kanan Kumar Patro*
This is to certify that

को निर्धारित पाठ्यक्रमों को पूरा करने और
after having passed the prescribed courses of study in the

December 2008 की परीक्षा उत्तीर्ण करने पर स्नातक उपाधि
examination is hereby awarded the Degree of

Bachelor of Education

प्रदान की जाती हैं।

श्रेणी / Division *First*

Vedavai
कुलसचिव
Registrar



Vedavai
कुलपति
Vice Chancellor

नई दिल्ली / New Delhi
दिनांक / Dated March 2, 2009

Kanan Kumar Patro



इन्दिरा गाँधी राष्ट्रीय मुक्त विश्वविद्यालय
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
STUDENT EVALUATION DIVISION
Maidan Garhi, New Delhi - 110 068
BACHELOR OF EDUCATION (B. ED.)
GRADE CARD

1451

BED 071251764
KANAN KUMAR PATRO
C/O-BASANT KU. PATRO
PATRO TELECOM, AT/PO-BALIGUDA
KANDHAMAL
762103

CERTIFICATE NO.: K 0000461

DATE: 08/04/2009

ORISSA

TERM-END EXAM.: DECEMBER 2008

COURSE CODE	CONTINUOUS EVALUATION SCORE								AVERAGE	Term-End	PRACTICALS				OVERALL GRADE		COURSE STATUS		
	AS-1		AS-2		AS-3		AS-4				ONE		TWO		LG	GP			
	LG	GP	LG	GP	LG	GP	LG	GP			LG	GP	LG	GP					
ES331	C	0.30	C	0.30	C	0.30	C	0.30	C	0.90	A	3.50	#	#.##	#	#.##	B	4.40	SC
ES332	B	0.40	B	0.40	B	0.40	B	0.40	B	1.20	D	1.40	#	#.##	#	#.##	C	2.60	SC
ES333	A	0.50	A	0.50	A	0.50	A	0.50	A	1.50	C	2.10	#	#.##	#	#.##	B	3.60	SC
ES334	B	0.40	B	0.40	B	0.40	B	0.40	B	1.20	C	2.10	#	#.##	#	#.##	C	3.30	SC
ES335	B	0.40	B	0.40	B	0.40	B	0.40	B	1.20	C	2.10	#	#.##	#	#.##	C	3.30	SC
ES341	B	0.40	B	0.40	B	0.40	B	0.40	B	1.20	D	2.80	#	#.##	#	#.##	B	4.00	SC
ES342	A	0.50	A	0.50	A	0.50	A	0.50	A	1.50	B	2.80	#	#.##	#	#.##	B	4.30	SC
ES362	B	0.40	B	0.40	B	0.40	B	0.40	B	1.20	D	1.40	#	#.##	#	#.##	C	2.60	SC
ES381	#	#.##	#	#.##	#	#.##	#	#.##	#	#.##	#	#.##	#	#.##	#	#.##	B	4.00	SC
ES382	#	#.##	#	#.##	#	#.##	#	#.##	#	#.##	#	#.##	#	#.##	#	#.##	B	4.00	SC
ES383	#	#.##	#	#.##	#	#.##	#	#.##	#	#.##	#	#.##	#	#.##	#	#.##	B	4.00	SC

DEGREE OF BACHELOR OF EDUCATION (B.Ed) SUCCESSFULLY COMPLETED

CUMULATIVE
GRADE POINT AVERAGE (CGPA) = 3.65
EQUIVALENT PERCENTAGE = 61.84%

OVERALL LETTER GRADE = 'B'

ABBREVIATION USED :

LG : Letter Grade
GP : Grade Point
AS : Assignment
SC : Successfully Completed * = Result Later / Not Submitted / Absent
NC : Not Completed # = Not Applicable
ACEG : Average Continuous Evaluation Grade

For Details See Overleaf

Kanan Kumar Patro

REGISTRAR (SEd)



KIIT UNIVERSITY

(Declared deemed to be University under section 3 of the UGC Act, 1956)
BHUBANESWAR



Upon recommendation of the Academic Council hereby confers the Degree of



DOCTOR OF PHILOSOPHY

in

Mathematics

on

Kanan Kumar Patro

Handwritten signature in blue ink



who has successfully completed the course of study in year 2015 as prescribed under the regulations
The title of the thesis being **"COMPUTATION OF MULTI-CHOICE GOAL PROGRAMMING PROBLEM AND ITS APPLICATION"**
Given under the seal of KIIT University in the Republic of India on the Seventh day of November Two Thousand Fifteen

Handwritten signature
Registrar

Handwritten signature

Vice - Chancellor

Handwritten signature
Chancellor