

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate SHREYA SREEKUMAR.....with Register
No PWAUSZ0040.....during the year 2020-22.

Valued with Register No: PWAUSZ0040.....

Examiners :

(1)

Johnny Violette
Dr. Johnny V

(2)

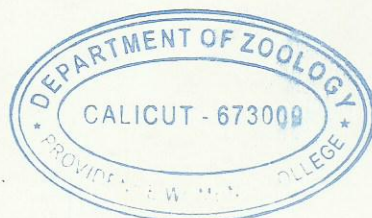
Gangadha
10/8/22

Teacher in charge.

Head of the dept.

Dr. Nishi Ann
DR. NISHI ANN
ASS. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT - 673 009

Dr. E. Julie
Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidateSONA BOBAN.....with Register
NoPWAUSZ0041....during the year 2020-22.

Valued with Register No: ...PWAUSZ0041...

Examiners :

(1)

[Handwritten signature]
10/6/2022
Dr. J. b. j. T

(2)

[Handwritten signature]
10/6/22

[Handwritten signature]
Teacher in charge

Dr. SANGEETHA G. KAIMAL
Assistant Professor
Department of Zoology
Providence Women's College
Mukkamparamba P.O., Calicut - 9

[Handwritten signature]
Head of the dept.

DR. NISHA ANN
ASSY. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidateSHRUTIKA: R.....with Register
No .PWAUSZ0005.....during the year 2020-22.

Valued with Register No: .PWAUSZ0005....

Examiners :

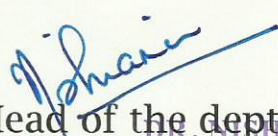
(1)

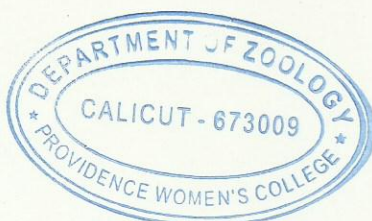
(2)

Teacher in charge.

Head of the dept


Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009


DR. NIRMAL ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate **TEENAMARY BAJU**.....with Register
No **PWAUSZ0042**.....during the year 2020-22.

Valued with Register No: **PWAUSZ0042**.....

Examiners :

(1)

Dr. Jobin J

(2)

Sangeetha 10/10/22

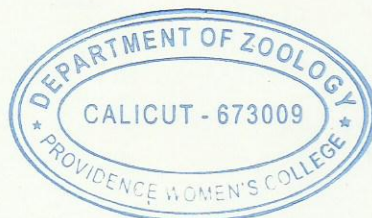
Sangeetha

Dr. SANGEETHA G. KAIMAL
Assistant Professor

Teacher in charge
Department of Zoology
Providence Women's College
Malaparamba P.O., Calicut - 9

Nishi Ann
Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

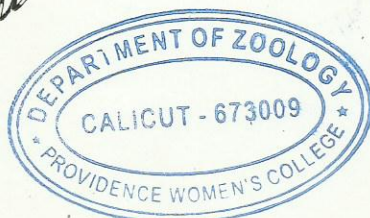
I hereby certify this is the bonafide record of Laboratory work done
by the candidate **VANDANA · P**with Register
No **PWAUSZ0015**during the year 2020-22.

Valued with Register No: **PWAUSZ0015**

Examiners :

(1)

(2)



Dr. SANGEETHA G. KAIMAL
Assistant Professor
Department of Zoology
Providence Women's College
Kadaparamba P.O., Calicut - 673009

Sangeetha
Teacher in charge

Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate VIDYA LAKSHMI . T.....with Register
No PWAUSZ0006.....during the year 2020-22.

Valued with Register No: PWAUSZ0006.....

Examiners :

(1)

(2)

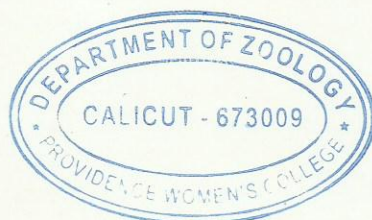
[Handwritten signatures and dates for examiners]
08/08/2022

Teacher in charge.

Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009

[Signature]
Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate**ANAMIKA M. K.**.....with Register
No**PWAUSZO020**.....during the year 2020-22.

Valued with Register No: **PWAUSZO020**.....

Examiners :

(1)

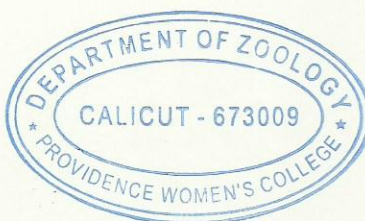
(2)

Sangeetha
Teacher in charge

Dr. SANGEETHA G. KAIMAL
Assistant Professor
Department of Zoology
Providence Women's College
Mataparamba P.O., Calicut - 9

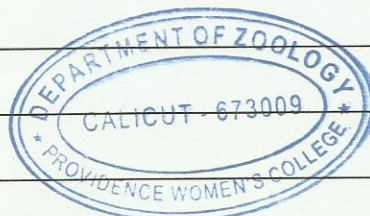
Nishi Ann
Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009

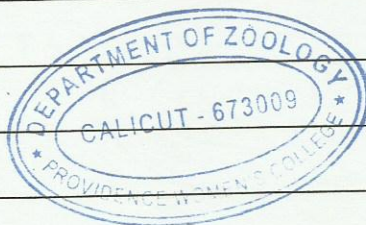


CONTENTS

SL. NO	EXPERIMENT	PAGE NO
	ANIMAL DIVERSITY	
	NON - CHORDATA	
	SPECIMEN STUDY	
1.	AMOEBA	4-5
2	NOCTILUCA	6-7
3	CERATUM	8-9
4	PARAMECIUM	10-11
5	VORTICELLA	12-13
6	LEUCOSOLENIA	14-15
7	SPONGE GERMULE	16-17
8	HYDRA	18-19
9	OBELIA MEDUSA	20-21
10.	PHYSALIA	22-23
11.	AURELIA	24-25
12.	ADAMSIA	26-27
13	FUNGIA	28-29
14	GIORGONIA	30-31
15	BIPALIUM	32-33
16	FASCIDLA HEPATICA	34-35
17	ASCARIS LUMBRICOIDES	36-37
18	BONELLIA	38-40



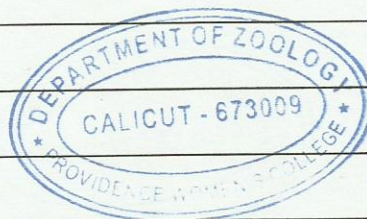
19.	APHRODITE	41 - 42
20.	ARENICOLA	43 - 44
21.	MEGASCOLEX	45 - 46
22.	HIRUDINARIA	47 - 48
23.	NEREIS	49 - 50
24.	LIMULUS	51 - 52
25.	LEPAS	53 - 54
26.	SACCOLINA	55 - 56
27.	CYMATHOA	57 - 58
28.	ALBUNEA SYMMISTA	59 - 60
29.	EUPAGURUS	61 - 62
30.	PENAEUS	63 - 64
31.	AEDES	65 - 67
32.	XENOPSYLLA	68 - 69
33.	LEPISMA	70 - 71
34.	SPODOPTERA MAURITIA	72 - 73
35.	LEPTOCORISA ACUTA	74 - 75
36.	ORYCTES RHINOCEROS	76 - 77
37.	SITOPHILUS ORYZAE	78 - 79
38.	RHYNCHOPHORUS FERRUGINEUS	80 - 81
39.	BELOSTOMA	82 - 83
40.	NEPA	84 - 85
41.	DRAGONFLY	86 - 87
42.	CARAUSIUS	88 - 89
43.	SCOLOPENDRA	90 - 91
44.	SPIROSTREPTUS	92 - 93



45.	PALAMNAEUS	94 - 95
46.	ACERIA GUERRERONIS	96 - 97
47.	CHITON	98 - 99
48.	PATELLA	100 - 101
49.	CYPRAEA	102 - 103
50.	MUREX	104 - 105
51.	CONUS	106 - 108
52.	PINCTADA	108 - 109
53.	TEREDO	110 - 111
54.	DENTALIUM	112 - 113
55.	SEPIA	114 - 115
56.	OCTOPUS	116 - 117
57.	NAUTILUS	118 - 119
58.	ASTERIAS	120 - 121
59.	CUCUMARIA	122 - 123
60.	ECHINUS	124 - 125
61.	BALANOGLOSSUS	126 - 127
62.	PERIPATUS	128 - 130

HISTOLOGY

1.	HYDRA - T.S	132 - 1343
2.	PLANARIA - T.S	134 - 135
3.	ASCARIS MALE - T.S	136 - 137
4.	ASCARIS FEMALE - T.S	138 - 139
5.	NEREIS - T.S	140 - 141
6.	EARTH WORM - T.S	142 - 143



MOUNTINGS

1.	EARTHWORM - BODY SETAE	145
2.	NEANTHES - PARAPODIUM	146
3.	CEPHALIC APPENDAGES - PRAWN	147
4.	THORACIC APPENDAGES - PRAWN	148
5.	ABDOMINAL APPENDAGES - PRAWN	149
6.	COCKROACH - SALIVARY APPARATUS	150
7.	HONEY BEE - MOUTHPARTS	151

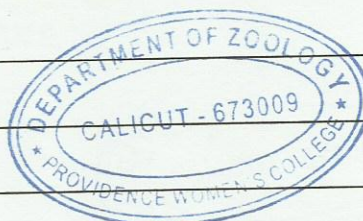
DISSECTIONS

1.	PENAEUS - NERVOUS SYSTEM	153
2.	COCKROACH - NERVOUS SYSTEM	154
3.	DEMONSTRATION OF CULTURE METHODS FOR PROTOZOANS	155 - 159

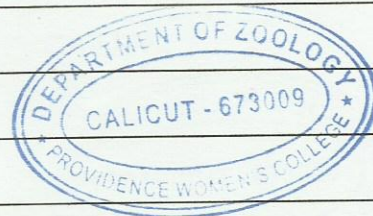
CHORDATA

SPECIMEN STUDY

1.	ASCIDIAN TADPOLE	162 - 163
2.	DOLIOLUM	164 - 165
3.	BRANCHIOSTOMA	166 - 167
4.	MYXINE	168 - 169
5.	PRISTIS	170 - 171
6.	TRYGON	172 - 173
7.	NARCINE	174 - 175
8.	SARDINELLA	176 - 177



9.	RASTRELLIGER	178 - 179
10.	CYNOGLOSSUS	180 - 181
11.	ETROPLUS	182 - 183
12.	MUGIL	184 - 185
13.	TILAPIA	186 - 187
14.	HIPPOCAMPUS	188 - 189
15.	EXOCOETUS	190 - 191
16.	ANABAS	192 - 193
17.	ECHENEIS	194 - 195
18.	ANGUILLA	196 - 197
19.	RHALOPHORUS	198 - 199
20.	AXOLOTL LARVA	200 - 201
21.	ICHTHYOPHIS	202 - 203
22.	CALOTES	204 - 205
23.	DRACO	206 - 207
24.	CHAMAELEON	208 - 209
25.	PTYAS	210 - 211
26.	INDOTYPHLOPS	212 - 213
27.	NAJA	214 - 215
28.	VIPER	216 - 217
29.	HYDROPHIS	218 - 219
30.	PYTHON	220 - 221
31.	KEY TO THE IDENTIFICATION OF POISONOUS SNAKE	222
32.	ARCHAEOPTERYX	223 - 224
33.	OSTRICH	225 - 226



34.	HERON	227 - 228
35.	STORK	229 - 230
36.	GULL	231 - 232
37.	PELICAN	233 - 234
38.	KITE	235 - 236
39.	OWL	237 - 238
40.	DUCK	239 - 240
41.	PARROT	241 - 242
42.	KINGFISHER	243 - 244
43.	KITE	245 - 246
44.	HEDGE HOG	247 - 248
45.	FUNAMBULUS	249 - 250
46.	PTEROPUS	251 - 252
47.	CIVET	253 - 254
48.	LORIS	255 - 256

HISTOLOGY

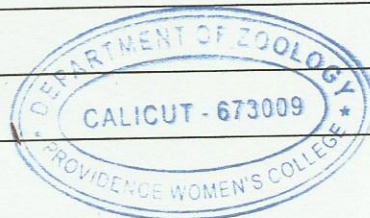
- | | | |
|----|---------------|-----------|
| 1. | BRANCHIOSTOMA | 258 - 259 |
|----|---------------|-----------|

MOUNTINGS

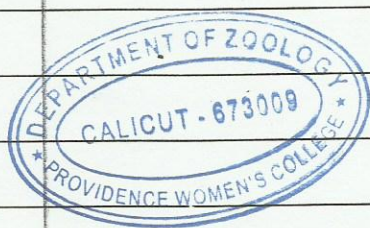
- | | | |
|----|------------------------|-----------|
| 1. | CYCLOID SCALES | 261 - 262 |
| 2. | SHARK - PLACOID SCALES | 263 - 264 |

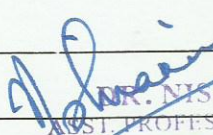
DISSECTIONS

- | | | |
|----|-------------------------|-----------|
| 1. | MULLET ALIMENTARY CANAL | 266 - 267 |
|----|-------------------------|-----------|



	OSTEOLOGY	
1	FROG - TYPICAL VERTEBRAE	269 - 270
2	FROG - 8 th VERTEBRAE	271 - 272
3	FROG - 9 th VERTEBRAE	273 - 274
4	FROG - PECTORAL GIRDLE	275 - 276
5	FROG - PELVIC GIRDLE	277 - 278
6	SNAKE VERTEBRAE	279 - 280
7	CARAPACE	281 - 282
8	PLASTRON	283 - 284
9	PIGEON - CERVICAL VERTEBRAE	285 - 286
10	PIGEON - PECTORAL GIRDLE AND STERNUM	287 - 288
11	PIGEON - PELVIC GIRDLE AND SYNSACRUM	289 - 290
12	DENTITION OF RABBIT	291 - 292
13	RABBIT ATLAS	293 - 294
14	AXIS OF RABBIT	295 - 296
15	TYPICAL VERTEBRA OF RABBIT	297 - 298
16	RABBIT - CORACO - SCAPULA	299 - 300
17	RABBIT - PELVIC GIRDLE	301 - 302




 DR. NISHI ANN
 ASST. PROFESSOR & HEAD
 DEPARTMENT OF ZOOLOGY
 PROVIDENCE WOMEN'S COLLEGE
 CALICUT - 673 009

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate **ANANYA . P**with Register
No. **PWAUSZ0021**during the year 2020-22.

Valued with Register No: **PWAUSZ0021**

Examiners :

(1)

(2)

[Handwritten signatures of examiners]
08/01/2022



Teacher in charge.

Head of the dept.

DR. NISHI ANN
ASSISTANT PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT - 673 009

[Signature]
Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate ANCY MARIYA ALEX.....with Register
No PWAUSZ0001.....during the year 2020-22.

Valued with Register No: PWAUSZ0001.....

Examiners :

(1)

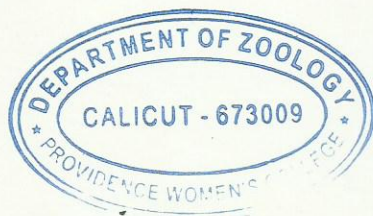
(2)

Gangeetha
Dr. SANGEETHA G. KAIMAL
Assistant Professor
Department of Zoology
Providence Women's College
Malaparamba P.O., Calicut - 673009

Teacher in charge.

Head of the dept.

Nishi Ann
DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT - 673009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate ARZIN RIYA K.....with Register
No PWAUSZ0009.....during the year 2020-22.

Valued with Register No: PWAUSZ0009.....

Examiners :

(1)

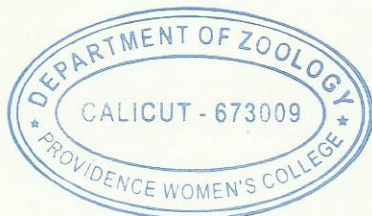
(2)

[Handwritten signatures and dates]
02/02/2022

Teacher in charge.

[Handwritten signature]
DR NISHI ANN
ASSISTANT PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009

[Handwritten signature]
Dr.E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate**ADITHYA . V . K**.....with Register
No **PWAUSZ0007**.....during the year 2020-22.

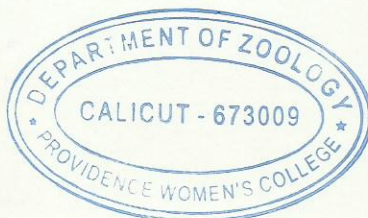
Valued with Register No: **PWAUSZ0007**...

Examiners :

(1)

(2)

[Handwritten signatures of examiners]
08/05/2022



Teacher in charge

Head of the dept.

[Handwritten signature]
Dr. E. Julie

Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

[Handwritten signature]

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate**AI SWARYA M:K**.....with Register
No ...**PWAUSZ0016**.....during the year 2020-22.

Valued with Register No:**PWAUSZ0016**.....

Examiners :

(1)

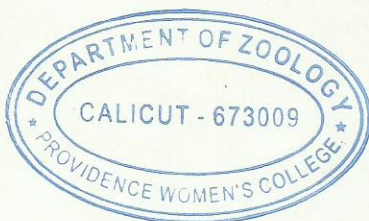
(2)

08/05/2022

Teacher in charge.

Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate AJANYA K.K.....with Register
No PWAUSZ0017.....during the year 2020-22.

Valued with Register No: PWAUSZ0017.....

Examiners :

(1)

(2)

[Handwritten signatures and date]
08/08/2022



Dr. SANGEETHA G. KAIMAL
Assistant Professor
Teacher in charge
Department of Zoology
Providence Women's College
Malaparamba P.O., Calicut - 673009

Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done by the candidateAMEENA JABEEN K.K.....with Register No ..P.W.AUSZ0018.....during the year 2020-22.

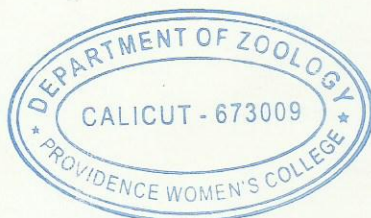
Valued with Register No: ..P.W.AUSZ0018.....

Examiners :

(1)

(2)

[Handwritten signatures and dates for examiners]
08/08/2022



Teacher in charge

[Signature]
Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

Head of the dept

[Signature]
DR. ANNE P. ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidateAMRUTHA K.....with Register
No ...PWAUSZ0019.....during the year 2020-22.

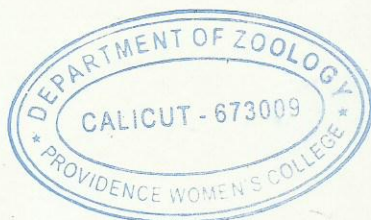
Valued with Register No: P.WAUSZ0019.....

Examiners :

(1)

(2)

[Handwritten signatures of examiners]



Teacher in charge.

Head of the dept.

[Handwritten signature]
Dr. Nishu ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT - 673 009

[Handwritten signature]
Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate ANCSY ALEXANDER.....with Register
No PWAUSZ0022.....during the year 2020-22.

Valued with Register No: PWAUSZ0022.....

Examiners :

(1)

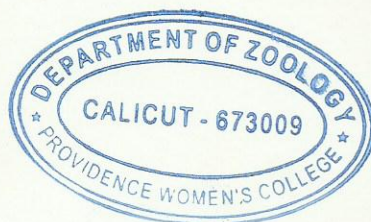
(2)

08/08/2022

DR. SACHIN CHAKRABORTY
Assistant Professor
Department of Zoology
Providence Women's College
Malaparamba P.O., Calicut - 9

Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate**ANEESHA:K:V**.....with Register
No ..**P.W.A.U.S.Z0008**.....during the year 2020-22.

Valued with Register No: ..**P.W.A.U.S.Z0008**.....

Examiners :

(1)

(2)

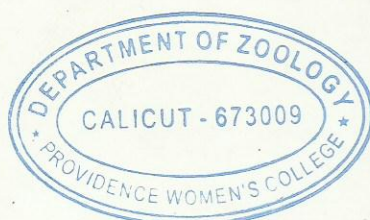
[Handwritten signatures and dates for examiners]
8/8/22
8/8/22

Teacher in charge.

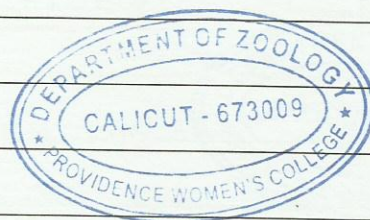
Head of the dept

[Signature of Dr. E. Julie]
Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

[Signature of Dr. Nishi Ann]
DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



8	SARDINELLA	177-178
9	RASTRELLIGER	179-180
10	CYNOGLOSSUS	181-182
11	ETROPLUS	183-184
12	MUGIL	185-186
13	TILAPIA	187-188
14	HIPPOLAMPUS	189-190
15	EXOCOETUS	191-192
16	ABUABAS	193-194
17	ECHENEIS	195-196
18	ANGUILLA	197-198
19	RHACOPHORUS	199-200
20	AXOLOTYL LARVA	201-202
21	ICHTHYOPHIS	203-204
22	CALOTES	205-206
23	DRACO	207-208
24	CHAMAELION	209-210
25	PTYAS	211-212
26	INDOTYPHLOPS	213-214
27	NAJA	215-217
28	VIPER	218-219
29	HYDROPHIS	220-221
30	PYTHON	222-223
31	KEY TO THE IDENTIFICATION OF POISONOUS SNAKES	224
32	ARCHAEOPTERYX	225-226
33	OSTRICH	227-228
34	HERON	229-230
35	STORK	231-232



CONTENTS

SL. No	EXPERIMENT	PAGE NO.
	ANIMAL DIVERSITY	1
	NON - CHORDATA	2
	<u>SPECIMEN STUDY</u>	3
1.	AMOEBA	4-5
2.	NOCTILUCA	6-7
3.	CERATJUM	8-9
4.	PARAMECIUM	10-11
5.	VORTICELLA	12-13
6.	LEUCOSOLENIA	14-15
7.	SPONGE GEMMULE	16-17
8.	HYDRA	18-19
9.	OBELIA - MEDUSA	20-21
10.	PHYSALIA	22-24
11.	AURELIA	25-26
12.	ADAMSIA	27-28
13.	FUNGIA	29-30
14.	GORGONIA	31-32
15.	BIPALIUM	33-34
16.	FASCIOLA HEPATICA	35-36
17.	ASCARIS LUMBRICOIDES	37-38
18.	BONELIA	39-40



36.	GULL	233-234
37.	PELICAN	235-236
38.	KITE	237-238
39.	OWL	239-240
40.	DUCK	241-242
41.	PARROT	243-244
42.	KINGFISHER	245-246
43.	KITE	247-248
44.	HEDGEHOG	249-250
45.	FUNAMBULUS	251-252
46.	PTEROPUS	253-254
47.	CIVET	255-256
48.	LORIS	257-258

HISTOLOGY

259

1. BRANCHIOSTOMA - T.S

260-261

MOUNTINGS

262

1. SARDINE : CYCLOID SCALES
2. SHARK : PLACOID SCALES

263-264

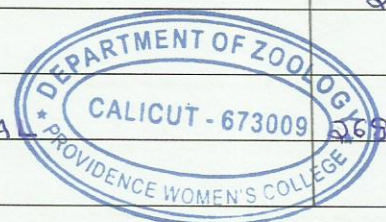
265-266

DISSECTIONS

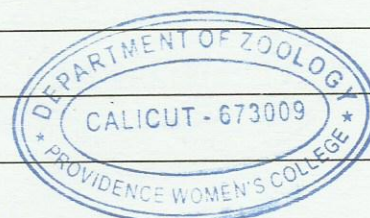
267

1. MULLET : ALIMENTARY CANAL

268-269



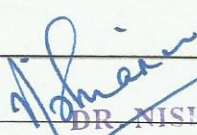
19.	APHRODITE	41-42
20.	ARENICOLA	43-44
21.	MEGASCOLEX	45-46
22.	HIRUDINARIA	47-48
23.	NEREIS	49-50
24.	LIMULUS	51-52
25.	LEPAS	53-54
26.	SACCULINA	55-56
27.	CYMATHOA	57-58
28.	ALBUNEA	59-60
29.	EUPAGURUS	61-62
30.	PENAEUS	63-64
31.	AEDES	65-67
32.	XENOPSYLLA	68-69
33.	LEPISMA	70-71
34.	SPODOPTERA MAURITIA	72-73
35.	LEPTOCORISA ACUTA	74-75
36.	ORYCTES RHINCEROS	76-77
37.	SITOPHILUS ORYZAE	78-79
38.	RHYNCHOPHORUS FERRUGINEUS	80-81
39.	BELOSTOMA	82-83
40.	NEPA	84-85
41.	DRAGON-FLY	86-87
42.	CARAUSIUS	88-89
43.	SCOLD PENDRA	90-91
44.	SPIROSTREPTUS	92-93

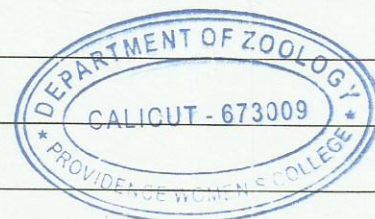


OSTEOLOGY

270

1.	FROG : TYPICAL VERTEBRAE	271-272
2.	FROG : 8 th VERTEBRAE	273-274
3.	FROG : 9 th VERTEBRAE	275-276
4.	FROG : PECTORAL GIRDLE	277-278
5.	FROG : PELVIC GIRDLE	279-280
6.	SNAKE VERTEBRAE	281-282
7.	CARAPACE	283-284
8.	PLASTRON	285-286
9.	PIGEON - CERVICAL VERTEBRAE	287-288
10.	PIGEON - PECTORAL GIRDLE AND STERNUM	289-290
11.	PIGEON - PELVIC GIRDLE AND SYNSACRUM	291-292
12.	RABBIT - DENTITION	293-294
13.	RABBIT - ATLAS	295-296
14.	RABBIT - AXIS	297-298
15.	RABBIT - TYPICAL VERTEBRAE	299-300
16.	RABBIT - CORACO - SCAPULA	301-302
17.	RABBIT - PELVIC GIRDLE	303-304


DR. NISHU ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT - 673 009

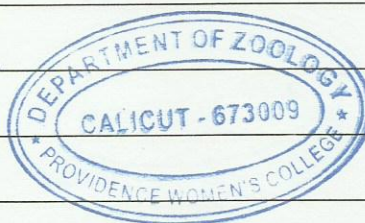


45	PALAMNAEUS	94-95
46	ACERIA GUERRERONIS	96-97
47	CHITON	98-99
48	PATELLA	100-101
49	CYPRAEA	102-103
50	MUREX	104-105
51	CONUS	106-107
52	PINCTADA	108-109
53	TEREDO	110-111
54	DENTALIUM	112-113
55	SEPIA	114-115
56	OCTOPUS	116-117
57	NAUTILUS	118-119
58	ASTERIAS	120-121
59	CUCUMARIA	122-123
60	ECHINUS	124-125
61	BALANOGLOSSUS	126-128
62	PERIPATUS	128-130

HISTOLOGY

131

1	HYDRA - T.S	132-133
2	DUGESIA - T.S	134-135
3	ASCARIS MALE - T.S	136-138
4	ASCARIS FEMALE - T.S	139-140
5	NEREIS - T.S	141-142
6	EARTHWORM - T.S	143-144



MOUNTINGS

145

- | | | |
|----|--------------------------------|-----|
| 1. | EARTHWORM - BODY SETAE | 146 |
| 2. | NEANTHES : PARAPODIUM | 147 |
| 3. | PRAWN - CEPHALIC APPENDAGE | 148 |
| 4. | PRAWN - THORACIC APPENDAGE | 149 |
| 5. | PRAWN - ABDOMINAL APPENDAGE | 150 |
| 6. | COCKROACH : SALIVARY APPARATUS | 151 |
| 7. | HONEY BEE MOUTH PARTS | 152 |

DISSECTIONS

153

- | | | |
|----|--|-----------|
| 1. | PENAEUS : NERVOUS SYSTEM | 154 |
| 2. | COCKROACH : NERVOUS SYSTEM | 155 |
| 3. | DEMONSTRATIONS OF CULTURE METHODS OF
PROTOZOANS | 156 - 160 |

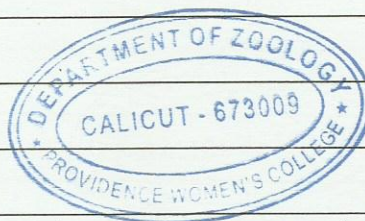
CHORDATA

161

SPECIMEN STUDY

162

- | | | |
|----|------------------|-----------|
| 1. | ASCIDIAN TADPOLE | 163 - 164 |
| 2. | DOLIOLUM | 165 - 166 |
| 3. | BRANCHIOSTOMA | 167 - 168 |
| 4. | MYXINE | 169 - 170 |
| 5. | PRISTIS | 171 - 172 |
| 6. | TRYGON | 173 - 174 |
| 7. | NARCINE | 175 - 176 |



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate**ANUMOL**.....with Register
No ...**PWAUSZ0023**.....during the year 2020-22.

Valued with Register No: ...**PWAUSZ0023**.

Examiners :

(1)

[Handwritten signature]

(2)

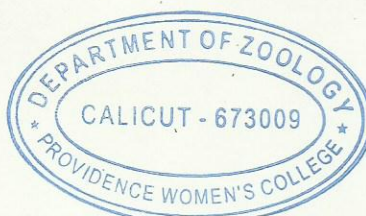
[Handwritten signature]
10/8/22

[Handwritten signature]
Teacher in charge

Dr. SANGEETHA G. KAIMAL
Assistant Professor
Department of Zoology
Providence Women's College
Kapparamba P.O., Calicut - 9

[Handwritten signature]
Head of the dept.

Dr. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate ...**ANUSHA O**.....with Register
No **PWAUSZ0024**.....during the year 2020-22.

Valued with Register No: ...**PWAUSZ0024**....

Examiners :

(1)

Johny J
10/8/2022
Dr. Johny J

(2)

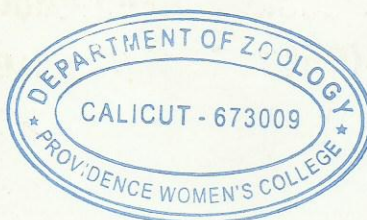
Sangeetha
10/8/22

Sangeetha
Teacher in charge

Dr. SANGEETHA G. KAIMAL
Assistant Professor
Department of Zoology
Providence Women's College
Mangalamparamba P.O., Calicut - 9

Nishi Ann
Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidateANUSREE .T.....with Register
No PWAUSZ0025.....during the year 2020-22.

Valued with Register No: PWAUSZ0025...

Examiners :

(1)

[Handwritten signature]

(2)

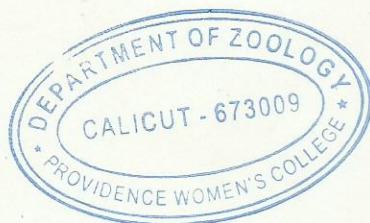
[Handwritten signature]

Dr. SANGEETHA Q. KADIA
Assistant Professor
Department of Zoology
Providence Women's College
Melaparamba P.O., Calicut -

[Handwritten signature]
Teacher in charge

[Handwritten signature]
Head of the dept.

DR. NISHA ANN
ASSIST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER - ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate ARCHANA.P.A with Register
No. PWAUSZ0026 during the year 2020-22.

Valued with Register No: PWAUSZ0026...

Examiners :

(1)

Johnny Johny
Dr. Johnny

(2)

Sangeetha
10/8/22

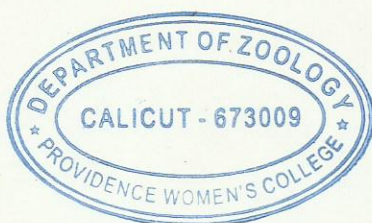
Sangeetha

Dr. SANGEETHA G. KAIMAL
Assistant Professor

Teacher in charge
Department of Zoology
Providence Women's College
Malaparamba P.O., Calicut - 2

Nishi Ann
Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate ASWATHI U.K with Register
No PWAUSZ0027 during the year 2020-22.

Valued with Register No: PWAUSZ0027

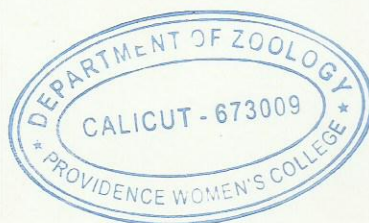
Examiners :

(1)

[Handwritten signature]

(2)

[Handwritten signature]



Teacher in charge

[Handwritten signature]
DR. NISHI ANN
ASSISTANT PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009

[Handwritten signature]
Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done by the candidate BINCY ELIZABETH PJ.....with Register No PWAUSZ0028.....during the year 2020-22.

Valued with Register No: PWAUSZ0028.....

Examiners :

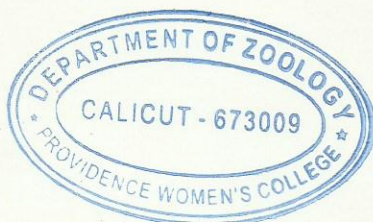
(1)

(2)

Sangeetha
Dr. SANGEETHA G. KAIMAL
Assistant Professor
Department of Zoology
Providence Women's College
Malaparamba P.O., Calicut - 9

Nisni Ann
Head of the dept.

DR. NISNI ANN
ASST PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done by the candidate CHRISTEENA T. SIMON.....with Register No PWAUSZ0002.....during the year 2020-22.

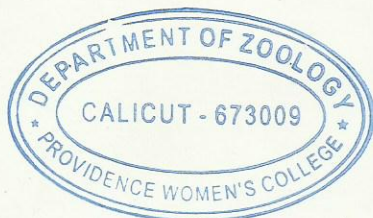
Valued with Register No: PWAUSZ0002...

Examiners :

(1)

(2)

[Handwritten signatures of examiners]
08/05/2022



[Handwritten signature: Sangeetha]
Dr. SANGEETHA G. KAIMA
Assistant Professor
Department of Zoology
Providence Women's College
Malaparamba P.O., Calicut -

Teacher in charge

[Handwritten signature: Nishi Ann]
Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate DARSANA EK.....with Register
No PWAUSZ0029.....during the year 2020-22.

Valued with Register No: PWAUSZ0029.....

Examiners :

(1)

Jobin J
10/10/2022
Dr. Jobin J

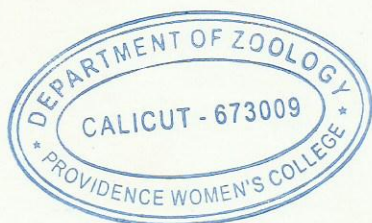
(2)

Sangeetha
10/10/22

Sangeetha
Dr. SANGEETHA G. KAIMAL
Assistant Professor
Department of Zoology
Teacher in charge.
Providence Women's College
Malaparamba P.O., Calicut - 9

Nishi Ann
Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidateGAYATHRI: K.....with Register
No PWAUSZO030.....during the year 2020-22.

Valued with Register No: PWAUSZO030...

Examiners :

(1)

Johny T
Dr. Johny T

(2)

Sanjitha
10/8/2022

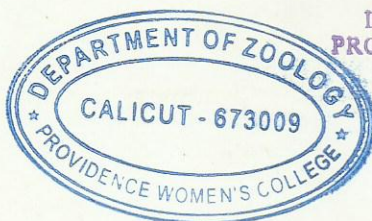
Teacher in charge.

Dr. E. Julie

Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's Coll
Calicut - 673 009

Head of the dept.

Dr. Nishi Ann
DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate HALKA HARISH.....with Register
No PWAUSZ0031.....during the year 2020-22.

Valued with Register No: PWAUSZ0031.....

Examiners :

(1)

Johny John

(2)

Sangeetha
10/8/22

Dr. SANGEETHA G. KAIMAL

Assistant Professor

Department of Zoology

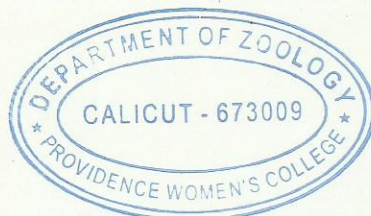
Providence Women's College
Malaparamba P.O., Calicut - 9

Sangeetha
Teacher in charge.

Nishi Ann
Head of the dept.

DR. NISHI ANN

ASSISTANT PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done by the candidate HISANA SHERIN MK....with Register No PWAUSZO032..during the year 2020-22.

Valued with Register No: PWAUSZO032

Examiners :

(1)

Nishi Ann
10/9/22

(2)

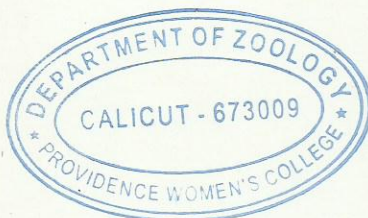
Sangeetha
10/9/22

Sangeetha
Teacher in charge

Dr. SANGEETHA G. KAIMAL
Assistant Professor
Department of Zoology
Providence Women's College
Manaparamba P.O., Calicut - 0

Hishan
Head of the dept.

DR. NISHI ANN
ASSISTANT PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate JALEETIA JAYSON.....with Register
No PWAUSZO033.....during the year 2020-22.

Valued with Register No: PWAUSZO033.....

Examiners :

(1)

[Signature]
10/8/22

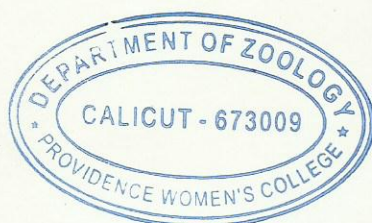
(2)

[Signature]
10/8/22

[Signature]
Dr. SANGEETHA G. KAIMAL
Assistant Professor
Department of Zoology
Teacher in charge
Providence Women's College
Malaparamba P.O., Calicut - 9

[Signature]
Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done by the candidate **JYOTHIRMAYI . CH**with Register No. **PWAUSZ0034**.....during the year 2020-22.

Valued with Register No: **PWAUSZ0034**

Examiners :

(1)

Jyothi
10/8/22

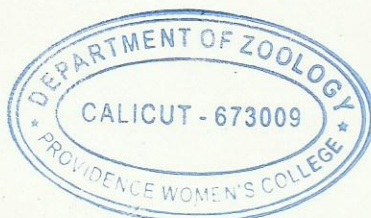
(2)

Sangeetha
10/8/22

Sangeetha
Dr. SANGEETHA G. KAIMAL
Assistant Professor
Department of Zoology
Teacher in charge
Providence Women's College
Malaparamba P.O., Calicut - 9

Head of the dept

Nishi Ann
DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT - 673009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done by the candidate ...**KRISHNA PRIYA**... with Register No**PWAUSZ0035**.....during the year 2020-22.

Valued with Register No: ..**PWAUSZ0035**....

Examiners :

(1)

Dr. Jobin J
10/6/22

(2)

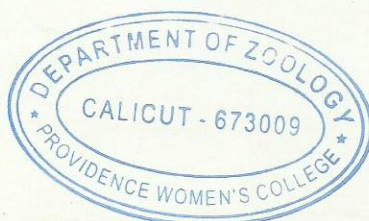
Dr. Sangeetha
10/6/22

Dr. SANGEETHA G. KAIM
Assistant Professor
Department of Zoology
Providence Women's College
Malaparamba P.O., Calicut - 9

Sangeetha
Teacher in charge.

Nishi Ann
Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate NANDHANA K E.....with Register
No PWAUSZ0003.....during the year 2020-22.

Valued with Register No: PWAUSZ0003.....

Examiners :

(1)

Jobraj 10/8/22
Dr. Jobraj

(2)

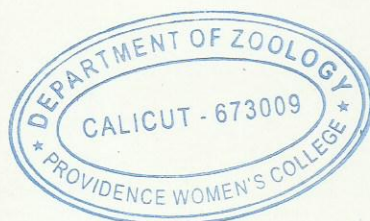
Sanjetha
10/8/22

Teacher in charge.

Head of the dept.

Dr. E. Julie
Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

Dr. Nishi Ann
DR. NISHI ANN
ASSISTANT PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate **NEHA-S**with Register
No ... **PWAUSZO036**during the year 2020-22.

Valued with Register No: ... **PWAUSZO036**

Examiners :

(1)

Johny 10/12/2022

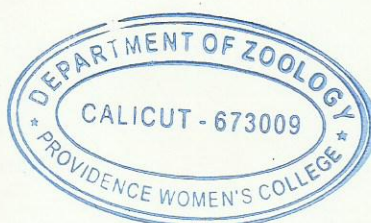
(2)

Sangeetha 10/12/22

Sangeetha
Teacher in charge
Dr. SANGEETHA G. KAIMAL
Assistant Professor
Department of Zoology
Providence Women's College
Mazharamba P.O., Calicut - 9

Nishi Ann
Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done by the candidate NITHYA P.M.....with Register No P.WAUSZ0037.....during the year 2020-22.

Valued with Register No: P.WAUSZ0037.....

Examiners :

(1)

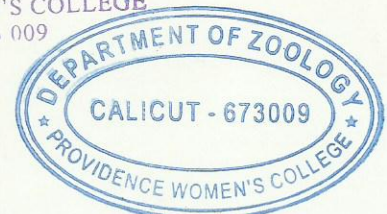
Johny 10/8/2022
Dr. Jobinraj.T

(2)

Sanpreethy
10/8/22

Sanpreethy
Teacher in charge.

Nishi Ann
DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009
Head of the dept.



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER - ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate NITHYA RAJ O.M.....with Register
No PWAUSZ0038....during the year 2020-22.

Valued with Register No: PWAUSZ0038....

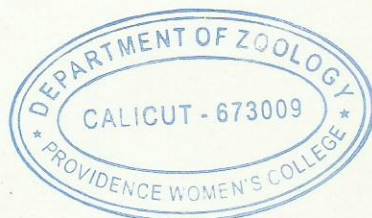
Examiners :

(1)

Subini
10/6/22

(2)

Pranitha
10/6/22



Teacher in charge.

Head of the dept.

DR. NISHU ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT - 673 009

Dr. E. Julie
Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate PARVANA S NAIR.....with Register
No PWAUSZO011.....during the year 2020-22.

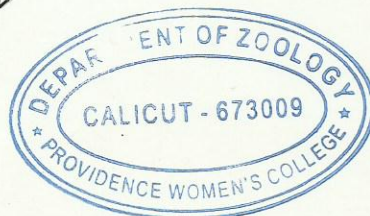
Valued with Register No: PWAUSZO011

Examiners :

(1)

(2)

[Signatures of Examiners]
08/08/2022



Teacher in charge

Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009

[Signature]
Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate RINSHA FATHIMA -M.....with Register
No PWAUSZ0012.....during the year 2020-22.

Valued with Register No: PWAUSZ0012.....

Examiners :

(1)

(2)

[Handwritten signatures and date 08/08/2022]

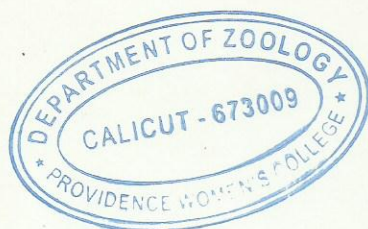
Teacher in charge

Head of the department

[Signature]
Dr. E. Julie

Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

[Signature]
DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate SAFA FATHIMA A.P.....with Register
No PWAUS20013.....during the year 2020-22.

Valued with Register No: PWAUS20013.....

Examiners :

(1)

(2)

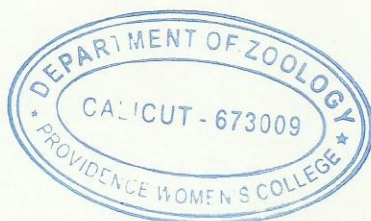
08/08/2022

Teacher in charge.

Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

Head of the dept.

DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done by the candidate SAFFANA..MAHAMMOOD.....with Register No PWAUS20004.....during the year 2020-22.

Valued with Register No: PWAUS20004.....

Examiners :

(1)

(2)

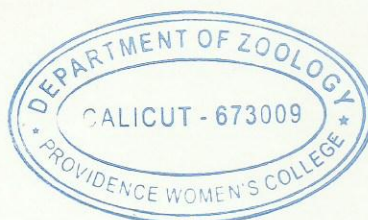
[Handwritten signatures and dates for examiners]
08/08/2022

Teacher in charge

Head of the dept.

[Signature]
Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's College
Calicut - 673 009

[Signature]
DR. HISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate**SANDRA . C**.....with Register
No **PWAUSZ0039**.....during the year 2020-22.

Valued with Register No: **PWAUSZ0039**

Examiners :

(1)

Jobin 10/8/22
Dr. Jobin T

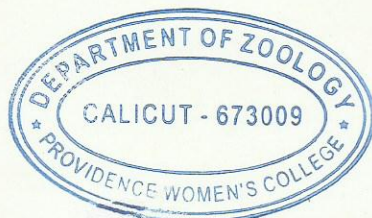
(2)

Banpretha 10/8/22

Teacher in charge.

[Signature]
Head of the dept
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009

[Signature]
Dr. E. Julie
Assistant Professor
Department of Zoology
Providence Women's Coll
Calicut - 673 009



PROVIDENCE WOMEN'S COLLEGE

CARMEL HILL, CALICUT 673009.



DEPARTMENT OF ZOOLOGY

B.Sc ZOOLOGY CORE PRACTICAL RECORD WORK

PAPER -ANIMAL DIVERSITY: NON CHORDATA AND CHORDATA

CODE: ZOL4B05P

I hereby certify this is the bonafide record of Laboratory work done
by the candidate**SANOORA**.....with Register
No**PWAUSZ0014**.....during the year 2020-22.

Valued with Register No: **PWAUSZ0014**....

Examiners :

(1)

(2)

[Signature]
[Signature]
08/08/2022

Teacher in charge.

Head of the dept.

[Signature]
Dr. E. Julie
Assistant Professor
Department of Zoology
Providance Women's College
Calicut - 673 009



[Signature]
DR. NISHI ANN
ASST. PROFESSOR & HEAD
DEPARTMENT OF ZOOLOGY
PROVIDENCE WOMEN'S COLLEGE
CALICUT- 673 009