


ST. THOMAS' COLLEGE (AUTONOMOUS), THRISSUR
Research and Post Graduate Department of Zoology
SYLLABUS FOR BRIDGE COURSE (2019-2020)

Induction Programme and Bridge Course Time table

	1	2	3	Lunch Break	4	5
10/06/19	Common Programme			Lunch Break	Free	Free
11/06/19	Languages	Botany (Ms. Geethu Elizabeth)	Zoology Core Mr. Shaun Paul	Lunch Break	Zoology Core Dr. Joyce Jose	Chemistry (Ms. Reeja)
12/06/19	Languages	Botany (Ms. Geethu Elizabeth)	Zoology Core Dr. Joyce Jose	Lunch Break	Zoology Core Dr. Joyce Jose	Evaluation Dr. Joyce Jose
13/06/19	Common Student Induction Programme			Lunch Break	Common Student Induction Programme	
14/06/19	Common Student Induction Programme			Lunch Break	TS and NTS and facilities introduction at the department and Feedback	


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Syllabus

Reasoning and; Logical Ability

Verbal reasoning, letter and symbol series, verbal classification, logical reasoning etc.

Communication Skills and; Language Aptitude

Module I: Communication – introduction – in animals, including human beings. Human Communication: purpose (ideas, feelings, data...) Communication: oral, written and visual.

Module II: Oral: way of speech – formal / informal – formal: formal settings (official)- informal between/among peers. Written: all forms of writing letters: business, official, minutes, applications, notifications, certificates etc. Visual: pictures, graphs, charts, signs, hoardings, posters, maps, photographs etc. Audio-visual: sound and visuals.

Module III: Non-verbal Communication: 1) Body language (emotions, feelings, eye contact, gestures, posture etc.) (2) Paralanguage: pitch, intonation, stress etc.

COMPLEMENTARY CHEMISTRY SYLLABUS – Time allotted 1 hour

Atomic radii – electronegativity – Mole concept – Standard solution – primary standard solutions – Covalent bond – ionic bond – N/P ratio – Nuclear fission – Hemoglobin – Chlorophyll.

COMPLEMENTARY BOTANY SYLLABUS- Time allotted 2 hours

Biology-Science of life; Cell-Unit of life; Introduction to biochemistry and metabolism of plants; Introduction to Plant Physiology; Introduction to genetics; Introduction to plant developmental biology (1 hr)

Biological classification with special emphasis on plant diversity; Introduction to Plant Breeding; Introduction to Economic Botany (1 hr)


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ZOOLOGY CORE SYLLABUS – TOTAL TIME ALLOTTED 4 HOURS

	Name of topic	Time allotted Total 4X 60= 240 minutes
1.	Introduction to Zoology and its Branches	15
2.	Introduction to Classification Systems and Animal Diversity – Non Chordata and Chordata	20
3.	Introduction to Environmental Biology Wildlife and conservation Biology and Toxicology	20
4.	Introduction to Ethology Evolution and Zoogeography	15
5.	Introduction to Cell Biology and Genetics	15
6.	Introduction to General Methodology in Science and Informatics	15
7.	Introduction to Biochemistry	15
8.	Introduction to Physiology and Endocrinology	15
9.	Introduction to Reproductive Biology, Developmental Biology and Teratology	20
10.	Introduction to Biotechnology, Microbiology and Immunology	20
11.	Introduction to Molecular Biology and Bioinformatics	15
12.	Introduction to Applied Entomology	10
13.	Higher Studies and Placement Oppurtunities	45

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DEPARTMENT OF ZOOLOGY

Bridge Course Evaluation 2019-2020

Name of Student	
Total Marks	

No of Questions: 30

Marks: 60

Section I Reasoning & Logical Ability (7)

- Find the next term of the series 1,5,11,19, ...
(a)32 (b)28 (c)29 (d)33.
- $234 \times 0 \times 11 \times 22 =$
(a)555 (b)0 (c)310 (d)None of these.
- Find the odd one out.
(a)Rabbit (b) Cat (c)Elephant (d)Deer.
- A fruit basket contains more apples than lemons.
There are more lemons in the basket than there are oranges.
The basket contains more apples than oranges.
If the first two statements are true, the third statement is
(a)True (b) False (c) Need not be true (d) None of these
- Choose an answer based on given information:
"When they heard news of the hurricane, Maya and Julian decided to change their vacation plans. Instead of traveling to the island beach resort, they booked a room at a fancy new spa in the mountains. Their plans were a bit more expensive, but they'd heard wonderful things about the spa and they were relieved to find availability on such short notice".
(a)Maya and Julian take beach vacations every year
(b)The spa is overpriced.
(c)It is usually necessary to book at least six months in advance at the spa.
(d)Maya and Julian decided to change their vacation plans because of the hurricane.
- Which word does NOT belong with the others?
(a)Tyre.(b)Steering wheel (c)Engine(d)Car
- Fill the blank in the end of the series.
FAG, GAF, HAI, IAH, ____
(a)JAK.(b)HAL (c)MAN(d)PAQ

Section II Communication Skills & Language Aptitude (5)

- ____.is the act of expressing ideas, feelings, and transferring data to others.
a) music b) communication c) pronunciation d) transformation
- Greetings, chats and casual conversations are generally considered ____ communication.
a) informal b) formal c) official d) structural
- The branch of linguistics that comprises the study of the sounds of human speech is ____
a) kinetics b) appendix c) cybernetics d) phonetics
- ____.is the way human body communicates through its physical movements and changes in demeanour.
a) proxemics b) sign language c) body language d) arbitrariness
- The particular feature of human language to refer to past and future time is called ____
a) displacement b) reflexivity c) creativity d) duality

Section III Questions from Qualifying Course (10)

- The metal present in chlorophyll is
a) Fe b)Mg c)Zn d) Co

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- a) 6.02×10^{23} b) 6.02×10^{15} c) 6.02×10^{12} d) 6.02×10^{20}

15. The metal ion present in hemoglobin
a) Mg b) Mn c) Cu d) Fe
16. Father of genetics.
a) Mendel b) Morgan c) Sutton d) Barbara McClintok
17. Special chemical messengers in the body that are created in the endocrine glands.
a) Enzymes b) Proteins c) DNA d) Hormones
18. A neurological syndrome or disease caused by severe mercury poisoning.
a) AIDS b) Minamata disease c) Silicosis d) Lung cancer
19. The average species diversity in a habitat or specific area is called
a) Alpha diversity b) beta diversity c) gamma diversity d) none of the above
20. A type of cell division that results in two daughter cells each having the same number and kind of chromosomes as the parent nucleus, typical of ordinary tissue growth.
a) Meiosis b) Conjugation c) Mitosis d) Binary fission
21. During gamete formation, the alleles for each gene segregate from each other so that each gamete carries only one allele for each gene.
a) Law of segregation b) law of independent assortment c) law of entropy d) law of cell division
22. Both father and mother have O positive blood group. What will be the blood group of the child?
a) A positive b) B positive c) AB positive d) O positive

Section IV Questions from Introductory Topics of UG

(8)

23. Which is a primary standard substance?
a) KMnO_4 b) NaOH c) Na_2CO_3 d) HCl
24. Which has greater atomic radii
a) F b) Cl c) Br d) I
25. Amphibians of plant kingdom.
a) Pteridophytes b) Bryophytes c) Gymnosperms d) Algae
26. The main component of plant cell wall.
a) Chitin b) Peptidoglycan c) Dextrans d) Cellulose
27. A notochord, a dorsal nerve cord, pharyngeal slits, an endostyle, and a post-anal tail are the defining characters of
a) Chordata b) Non Chordata c) Protista d) Echinodermata
28. Four legged animals belong to S uperclass
a) Aves b) Pisces c) Tetrapoda d) Echinodermata
29. Scientific name of the national bird of India
a) *Pava cristatus* b) *Pavo cristata* c) *Pavo cristatus* d) *Pavio cristatus*
30. The process in living organisms involving the production of energy, typically with the intake of oxygen and the release of carbon dioxide from the oxidation of complex organic substances is called
a) Respiration b) Reproduction c) Ventilation d) Nutrition



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Results of Bridge Course 2018-2019

S. No	Name Of Student	Logic And Reasoning	Communications	Questions From Qualifying Course	Questions From Introductory Course	Total	Classification
1	Abhishek Anto	7	4	10	8	58	Advanced learner
2	Aloysius Tomi	7	5	10	7	58	Advanced learner
3	Haritha J Treesa	5	4	10	8	54	Advanced learner
4	Honey KH	5	4	10	8	54	Advanced learner
5	Sofy Phillip	6	4	10	7	54	Advanced learner
6	Heera M S	6	4	9	7	52	Advanced learner
7	Henna KH	6	3	9	8	52	Advanced learner
8	Amalin Grace Antony	6	4	9	6	50	Advanced learner
9	Gopika A G	6	3	10	6	50	Advanced learner
10	Adirsha D G	6	4	7	7	48	Advanced learner
11	Aiswarya K S	6	3	10	5	48	Advanced learner
12	Aleena Mathews	6	4	8	6	48	Advanced learner
13	Melkin Francis	4	4	10	6	48	Advanced learner
14	Archana T S	4	4	9	6	46	Average learner
15	Kripa Pushkaran	3	3	10	7	46	Average learner
16	Leo George	6	3	7	7	46	Average learner
17	Sanajana Shivakumar	4	4	8	7	46	Average learner
18	Sona Jenson	7	2	9	5	46	Average learner
19	Aiswarya T D	6	2	7	7	44	Average learner
20	Aswathi Haridas	6	3	7	6	44	Average learner
21	Nandana P G	6	2	8	6	44	Average learner
22	Ajeena Paul	6	2	7	6	42	Average learner
23	Alin Thomson	6	3	7	5	42	Average learner
24	Anson Martin	6	3	8	3	40	Average learner
25	Aloshy M B	5	3	6	1	30	Slow Learners
26	Abhishek Geo	3	2	4	4	26	Slow Learners

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