

## MINUTES OF ZOOLOGY BOARD OF STUDIES (BoS) MEETING HELD ON

23<sup>rd</sup> MARCH 2019 AT 10.30 PM

- 1) The meeting was chaired by Dr. Roshan D'Souza, Head of Zoology and Chairperson of BoS.
- 2) The agenda for the meeting was as follows:
  - i) Welcome note by the Chairperson BoS.
  - ii) Reading of the minutes of the meeting held on 22<sup>nd</sup> September 2018 and confirming of the same.
  - iii) FYBSc - Semester I and II syllabus discussion w.r.t. changes or modifications suggested.
  - iv) FYBSc Question paper pattern - Theory and Practical examinations.
  - v) SYBSc - Semester III and IV syllabus discussion.
  - vi) SYBSc Question paper pattern- Theory and Practical examinations.
  - vii) Internal Assessment pattern
  - viii) Panel of paper setters and examiners for FY and SYBSc theory and practical examinations.
  - ix) Any other matter with the permission of the Chair.
  - x) Fixing of the next BoS meeting - tentative date.
- 3) The meeting started at 10.30 pm. Dr. Roshan D'Souza welcomed all the members of the BoS.
- 4) The meeting was thus started with the permission of the board.
- 5) The FYBSc syllabus was discussed first.
- 6) Dr. R.D'Souza informed the committee about the changes made in the syllabus based on the suggestions of the committee in the earlier BoS meeting. Dr. Aldon suggested that students could be taught to make graphs on Excel and other software. He suggested the names of COMBISTATS/ PAST software which could be used.
- 7) Dr. Aldon Fernandes also said that students need to familiarize themselves with the use of log books.
- 8) Dr. R.D'Souza said that introduction of HPTLC, which was a suggestion in the last BoS meeting could be done as a STAR activity.
- 9) The committee had suggested that the wording of the practical 'Mounting of Parapodia of Nereis' should be changed to 'Study of Parapodia'. This suggestion was accepted and incorporated in the syllabus.
- 10) Dr. Aldon Fernandes had suggested in the last BoS meeting that CITES and Red Data Book should be introduced in the FYBSc syllabus. Dr. R.D'Souza informed the committee that this suggestion was incorporated in the syllabus.

- 11) Dr.R.D'Souza informed that suggestions for introducing screening for genetic disorders, antenna cleaning of cockroach and estimation of proteins using Bradford's method were also incorporated.
- 12) The SYBSc syllabus was discussed by giving the syllabus grid.
- 13) Dr.R.D'Souza informed that the codes for papers have been changed.
- 14) Dr.R.D'Souza explained that Research methodology was shifted in semester III, which would help students to understand about research methodology which could help to carry out small projects to be done in semester IV.
- 15) Dr.R.D'Souza informed that histology was being introduced in Semester IV.
- 16) Dr. A. Dalvi suggested that visiting fish landing centre would be a rewarding activity, where good activity could be seen.
- 17) Dr.Aldon Fernandes suggested that the adverse role of microplastics in fisheries could be explained.
- 18) Dr. R.D'Souza explained Paper I Semester III syllabus
- 19) Dr. A. Dalvi asked if the examples of chordates are introduced in the theory syllabus.
- 20) Dr. Smita Krishnan said that it was good that human reproduction was introduced. Dr.R.D'Souza informed that male infertility was introduced this year in accordance with the suggestion made by Dr. B. B. Nath.
- 21) Dr. R.D'ouza said that we have kept the unit of developmental biology a little lighter as Unit 2 in the same paper if very exhaustive.
- 22) Dr. R.D'Souza explained Paper II Semester III syllabus
- 23) Dr.R.D'Souza explained the syllabus of Cell biology.
- 24) Prof. V. Dalvie suggested that Biogenesis should be introduced in the topic of mitochondria. He also suggested that the units of Economic entomology, Fisheries and Dairy science should be in one paper called Applied Zoology.
- 25) Prof. V. Dalvie asked why research methodology is needed at SYBSc level, when Sophia college does not have TYBSc in Zoology.
- 26) Ms. Nazia said that the unit of Research Methodology is good as it will help the students in their TYBSc EXSP research component.

- 27) Prof. Peeyush Pahade said that since Zoology has less number of students, introducing research methodology is easier.
- 28) Dr.R.D'Souza said that research methodology can be a common platform for all students across all subjects. She also informed that keywords were introduced in research methodology. Dr. Aldon suggested that impact factor should be included. Dr.A. Dalvi said UGC approved journals should be introduced. Prof. V.Dalvie said that agencies involved in giving impact factor should be taught. The problem of authenticity of impact factor was discussed.
- 29) Prof. Peeyush Pahade expressed the doubt if research methodology would be replicated across the different subjects.
- 30) Dr. Smita Krishnan suggested that students should have an option as to which department they prefer to do the topic of research methodology in case it is replicated across the different departments.
- 31) Ms.Nazia Choudhary suggested that open lectures could be conducted on the topic of research methodology.
- 32) Prof. V. Dalvie suggested that the units of cell biology, molecular biology and histology could be shifted to one single paper.
- 33) Dr.R.D'Souza. explained the syllabus of histology
- 34) Prof. Peeyush Pahade suggested that in histology, basic types of tissues could be introduced.
- 35) Dr. V.Dalvie asked if hormones are taught as a part of histology. Dr. R.D'Souza clarified that it was taught in the unit of Control and coordination.
- 36) Ms. Nazia Chaudhary wanted to know if there are practicals based on histology.
- 37) Dr. R.D'Souza explained the genetics syllabus. Prof. Peeyush Pahade wanted that students could know the legal significance of Bombay blood group.
- 38) Dr.R.D'Souza explained the unit Nucleic acids and chromosomes.
- 39) Prof. V. Dalvie wanted to know if polyploidy was a part of the above unit.
- 40) Dr. R.D'Souza explained parasitology unit. It was suggested by Dr. V. Dalvie that bedbug should be removed and mosquito should be introduced and *Ascaris* instead of *Wuchereria*. All the members suggested that Anthrax should be removed.
- 41) Prof. V. Dalvie and Mr.Pahade suggested that in apiculture, pests, enemies, diseases and commercial importance should be introduced.

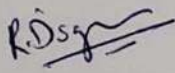

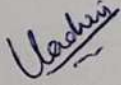
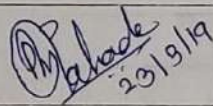
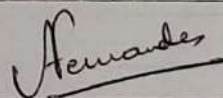
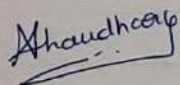
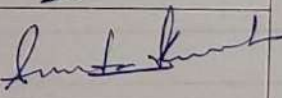
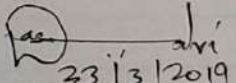
- 42) Prof. V. Dalvie questioned the necessity of teaching lac culture and recommended that it should be removed.
- 43) Prof. V. Dalvie and Prof. Peeyush Pahade said that household and agricultural pests and their control should be introduced. Dr. Aldon Fernandes said that plastic eating caterpillars should be introduced.
- 44) Prof. V. Dalvie suggested that use of maggots in forensic science should be introduced.
- 45) Prof. Peeyush Pahade said that trichopteran nests should be introduced in economic entomology.
- 46) Dr. Aldon Fernandes suggested all these above units could be taught under modern applications of entomology.
- 47) Dr. R.D'Souza explained the practicals of SYBSc. Prof. V. Dalvie said practicals should not involve any killing of animals. Chick embryology can be studied from permanent slides.
- 48) Dr. A. Dalvi said that study of fauna and flora could be introduced as a practical. He also told that a disclaimer should be put for practicals stating that no animals were harmed during the practicals.
- 49) Prof. V. Dalvie said that it should be study of polytene chromosomes, not mounting.
- 50) It was decided by the committee that *Wuchereria*, bed bug and lac culture would be removed from the practical syllabus and new ones introduced.
- 51) Prof. Peeyush Pahade said that study of wings of honeybee, structure of bee hive- traditional and modern could be introduced.
- 52) Dr. V. Dalvi said that KVIC at Mithibai College has bee cultures available.
- 53) Dr. R. D'Souza explained semester IV syllabus.
- 54) Prof. Peeyush Pahade suggested that a comparative study of alimentary canals based on their diet should be introduced. He also said that wheel organ in amphioxus should be removed and mudskipper introduced.
- 55) Dr. Smita Krishnan asked if dissection of fishes would be done.
- 56) Prof. V. Dalvie said that comparison between cilia and flagella should be taught.
- 57) Dr. R. D'Souza explained paper II syllabus.
- 58) Dr. A. Dalvi said that Michaelis Menton should be removed. Ms. Nazia agreed with the suggestion.

- 59) Dr. R.D'Souza explained the histology unit. Dr. Aldon Fernandes and Prof. V. Dalvie said that histology of normal and cancerous mammary gland should be introduced.
- 60) Dr. A. Dalvi said that bioremediation should be introduced in soil pollution. He also said that fisheries unit should have an introduction.
- 61) Prof. V.Dalvie said that types of fisheries should be removed. Dr. A. Dalvi said that Shore seine, Chinese nets and trawl nets should be introduced.
- 62) Prof. V. Dalvie said that recreational fishery should be introduced. He also said that fish preservation, processing and value addition should be introduced. He also said that commercial fishery should be introduced. He said the study of different types of fished could be divided as capture fisheries (Pomfret, Ravas, Sardine, prawns, Tuna, Bombay duck, Lobsters, Sepia) and culture fisheries( Catla, Rohu).
- 63) Dr. Smita Krishnan said that crafts and gears should be transferred to practicals. She said that the unit of fisheries has become too lengthy with the addition of all new suggestions.
- 64) Prof. V. Dalvie said that aquaculture should be introduced- Indian major carps, Freshwater and brackish prawn culture and fin fish culture.
- 65) Dr. Aldon Fernandes said that role of tides in fishing should be introduced. Mr. Pahade said that role of moon in fishing should be introduced. Prof. V. Dalvie said that it would be too lengthy for a single unit.
- 66) Prof. V. Dalvie and Prof. Peeyush Pahade said that too many topics should not be added to the unit.
- 67) Dr. Aldon said that Poisonous fishes should be introduced. He gave example of pufferfish.
- 68) Dr. Aldon said that in dairy science, add goat and camel milk. He also said add toned milk.
- 69) Prof. V. Dalvie said Chitale dairy is a good palce to visit. Dr. Aldon Fernandes said that Wagle estate has a good dairy farm.
- 70) Dr. Dalvi said that preparation of milk chocolate, rosagullaa should be introduced. Dr. Aldon Fernandes said preparation of icecream should be added. Prof. Peeyush Pahade said that there should be a study visit to an icecream factory. Prof. V. Dalvie said that adulteration of milk should be taught.
- 71) Dr. A. Dalvi said that it should be worded as "study trip", not as "excursion".
- 72) Dr. A. Dalvi said that the following snakes should be introduced, venomous (krait, viper and cobra) and nonvenomous (ratsnake, python).
- 73) Dr. Dalvi said that adulteration of honey should be added to practicals.

- 74) It was suggested by the committee that wing of honeybee should be taught in practicals.
- 75) Dr. A. Dalvi said that cartilaginous fishes should come first in order before bony fishes.
- 76) The committee suggested that in microtomy, tissues from goat or chicken could be obtained from the market.
- 77) Dr. Roshan D'Souza said that the suggestions will be incorporated as far as possible.
- 78) The committee also passed the paper pattern as well as panel of paper setters and examiners.
- 79) The meeting concluded with Dr. Roshan D'Souza along with Ms. Sandhya Kadiru thanking all the members of BoS for giving their time and such valuable suggestions.

## RESOLUTION

“The Subject Board in ZOOLOGY for Sophia College (Autonomous), hereby approve the syllabus for the course of Zoology of the FYBSc and SYBSc which is being implemented from the Academic Year 2019-20 at the meeting held on 23<sup>rd</sup> March 2019”.

| Name                    | Designation                                    | Signature  |
|-------------------------|--|--|
| Dr. Roshan D'Souza      | Chairperson, Board of Studies                  |                 |
| Shri. Vinayak V. Dalvie | The Vice-Chancellor's Nominee                  |                |
| Ms. Sandhya Kadiru      | Senior teacher                                 |               |
| Prof. Bimalendu B. Nath | Subject Expert (outside the Parent University) | —  |
| Dr. Peeyush Pahade      | Subject Expert (outside the Parent University) | <br>23/3/19   |
| Dr. Aldon Fernandes     | Representative from Industry                   |                |
| Ms. Nazia Chaudhary     | Post-graduate alumna                           |               |
| Dr. Smita Krishnan      | Other member of faculty                        |                |
| Capt.(Dr.) Akbar Dalvi  | Other member of faculty                        | <br>23/3/2019 |

**Attendance Record of meeting of the members of the Zoology Board of Studies held on Saturday 23<sup>rd</sup> March, 2019 at 10.30 am in Suman Tulsiani Research Centre Conference Room**

| Name                    | Designation                                    | Signature   |
|-------------------------|--|---|
| Dr. Roshan D'Souza      | Chairperson, Board of Studies                  |                 |
| Shri. Vinayak V. Dalvie | The Vice-Chancellor's Nominee                  |                 |
| Ms. Sandhya Kadiru      | Senior teacher                                 |                 |
| Prof. Bimalendu B. Nath | Subject Expert (outside the Parent University) | —   |
| Dr. Peeyush Pahade      | Subject Expert (outside the Parent University) | <br>23/3/19   |
| Dr. Aldon Fernandes     | Representative from Industry                   |               |
| Ms. Nazia Chaudhary     | Post-graduate alumnus                          |               |
| Dr. Smita Krishnan      | Other member of faculty                        |               |
| Capt.(Dr.) Akbar Dalvi  | Other member of faculty                        | <br>23/3/2019 |