



Andhra Pradesh Forest Department Code - Vol - II - Appendix - 6

APPENDIX – 6

(Section 12 and Appendix-I)

RULES FOR THE ANDHRAPRADESHSCHOOL OF FORESTRY, YELLANDU

1. CONSTITUTION OF THE SCHOOL

1. Names – The second shall hereafter be called the Andhra Pradesh School of Forestry, Yellandu.

2. Situation – It will be located at Yellandu, a taluk head quarters of Khammam District, well connected by roads and rail.

Reasons for change

There are the rules approved in G.O. Ms. No. 1570 F&A (For-IV) dated 9-7-1963 and amended up to 7-12-1974 which are up to date.

3. Administrative Control – The Second shall be under the administrative control of the Conservator, Khammam Circle who will refer any matter of Policy to the Chief Conservator at his discretion, Any alteration in the course of study or in the rules for admission of students or any question affecting the school will be considered by a Board of control whose suggestions shall be submitted for the orders of the Chief Conservator by the Chairman of the Board of control.

4. The Board of Control shall be constituted with the following:-

- i) Conservator, Khammam Circle Chairman.
- ii) Divisional Forest Officer, Kothagudem Vice-Chairman.
- iii) State Silviculturist, Hyderabad Member.
- iv) Principal, Andhra Pradesh School of Forestry, Member-Secretary.

Yellandu

Any other Conservator may be nominated by the Chief Conservator as additional members of the Board of Control.

5. The Board of Control will meet annually at Yellandu to preside over the examinations and to issue Certificates to Students.

6. (a) The meeting of the Board shall be held in the last week of March for Forester's training.

(b) The period of the Forester's Session and the Forest Guard's session shall be as follows:-

- (1) Foresters Session from 1 st April, to 31 st March.
- (2) Forest Guard's 1 st Session from 1 st April to 30 th September.
- (3) Forest Guard's 2 nd Session from 1 st October to 31 st March.

7. The Board of examiners for Forester students will be nominated by the Chief Conservator, for Forest Guard students, the Chairman of the Board of Control i.e., Conservator, Khammam Circle will nominate the Board of examiners from among Officers of Khammam Circle and the State Silviculturist and Forest Utilization Officer.

No member of the School staff be eligible to become a member of the Board of examiners.

THE SCHOOL STAFF

8. The school staff will consist of the following:

- i. Principal.
- ii. First Instructor.
- iii. Second Instructor.
- iv. Third Instructor.
- v. Engineering Instructor.
- vi. Assistant Instructor.
- vii. Physical Instructor.

9. The Forest Officer in-charge of the School will not be lower in rank than an Assistant Conservator and will be cited the Principal of the School and will be in immediate administrative Charge of the School. He will exercise the powers of a Divisional Forest Officer as far as the school organization is concerned. He will be responsible for:-

- i. The general administration, arrangements and supervision of the course of studies.
- ii. Maintenance of discipline.
- iii. Supervision of the buildings, hostel quarters, grounds, nurseries, garden etc.,
- iv. Control of accounts.
- v. Correspondence and.
- vi. Lecturing work in Silviculture to Foresters and in forest protection of Forest Guards.

10. The Instructors and the Physical Instructor will be responsible to the Principal for carrying out the Prescribed scheme of training and discipline. They will also attend the work allotted to them from time to time by the Principal. The other members of the school staff and the students shall also be under the direct control of the Principal of the school.

11. Instructions:- An Official not lower in rank than a Ranger will be selected from those qualified in Rangers Course of the Forest College, Coimbatore or Dehradun, (preferably from Honours or Higher standard class with higher academic qualification) and will be normally posted to the School for a period of not less than 3 years.

12. To improve the survey and engineering sections of the school and to keep up the required standard of efficiency, a qualified person (Preferably a B.E.) will be appointed as Engineering Instructor.

13. The school will provide free quarters to the staff and subordinates on arrival at Yellandu.

The strength of ministerial staff, attenders and other last grade servants will be as sanctioned by the Government from time to time.

II - RULES FOR ADMISSION

14. The School will train a minimum of 60 Forester students per year in one session (1 st April to 31 st March) and 120 Forest Guard students in two sessions (1 st April to 30 th September and 1 st October to 31 st March) every year.

The school will also train such of the Deputy Range Officers who have not undergone training previously. The conditions prescribed for training of Foresters will also apply to Deputy Range Officers.

The Chairman of the Board of Control will have the discretion to order the admission of 10% more students to the maximum prescribed above, if necessity arises.

15. (a) SECTION – A – Selection of Foresters:-

i) The Chief Conservator shall fix the seats for each region in proportion to the number of untrained Foresters in each region. Selection shall be passed on region wise seniority and shall be in proportion to the number of trained Foresters in each region.

ii) Each Divisional Forest Officer, the Officers in charge of special divisions including working Plan Officers, State Silviculturists, Forest Utilization Officer etc. shall submit the names of all such Foresters as are eligible for and are required to undergo training to the concerned Conservator by 1 st January each year.

The Conservator shall arrange the names of Foresters so received according to their seniority and send the lists to the Conservator, Khammam Circle with his recommendations. The Conservator Khammam Circle shall prepare the seniority lists of the 2 regions / separately and finalize the list of Foresters to be trained from both the regions and communicate such lists to the Conservators and Divisional Forest Officers concerned marking a copy to Principal Forest School, Yellandu and Chief Conservator by the end of January. The Conservator Khammam Circle shall interalia give suitable instructions to the Divisional Forest Officers regarding the relief of Foresters selected for training.

(b) Section – B – Selection of Forest Guards:-

Each Divisional Forest Officer and the Divisional Forest Officer of special divisions shall submit of all Forest Guards eligible for training to the concerned Conservator by 1 st January, and 1 st August. The Conservator shall examine the lists and send them to the Conservator, Khammam Circle with his recommendations. The Conservator, Khammam Circle may at his discretion, allot the number of Forest Guards to be training in each circle keeping in view the number of untrained Forest Guards in each circle and in special divisions.

(c) (i):- The Divisional Forest Officer shall relieve a subordinate selected for training sufficiently in advance, to enable him to join the School within a week of commencement of the Session unless he receives orders to the contrary, from the Chief Conservator.

(ii) The exemption from training on any grounds including medical grounds shall be granted only by the Chief Conservator.

(iii) A candidate selected for training shall not be allowed to rejoin in the Division until he successfully completes the course unless he had been duly exempted by the Chief Conservator. The Candidates avoiding to join the School without proper sanction shall be liable for disciplinary action.

16. Both the Foresters and Forest Guards students should not have exceeded the age of 40 years on the date of their entry into the school.

17. All students admitted to the school must comply with the following terms:-

i. They must live in the school quarters;

ii. A sum of Rs. 23 and Rs. 15 as security for good behavior must be deposited in advance by the students of Foresters and Forest Guards class respectively. This sum will be refunded at the end of the course, if it is not confiscated in whole or in part or utilized to compensate for any damage done or to pay the bills outstanding against the students;

iii) The students of the Foresters class must have passed the Matriculation or any equivalent examination;

Note:- The rule may be relaxed by the deputing Chief Conservator in the case of deserving Foresters who are non-matriculate and who have a working knowledge of English and can read and write English and are fit to follow the course. The students of Forest Guards class must possess an elementary knowledge of simple arithmetic and regional language sufficient to enable them to follow the course with profit.

iv) They must have put in at least one year service in the Department.

18. If not recently successful vaccinated, the student must be vaccinated before joining the School. After joining the school the principal will arrange for T.B. and Cholera inoculations.

19. Selected candidates should report themselves at the School on the date of opening without fail i.e., Forest Guards students on 1 st April and on 1 st October and Forester students on 1 st April every year. candidates coming one week after the commencement of the sessions will not be admitted.

20. The Principal is empowered to remove from the school any student, who after a period of three months, has shown himself unfit to follow the school course intelligently and with profit.

21. (a) All students in Government Service are required to execute agreement and security bonds in the forms prescribed in Annexure-III and IV before they join the school binding themselves to serve the Government for five complete years after leaving the school.

(b) The amount of the bound to be taken in each case is as follows:-

i. Foresters. Rs. 300/-

ii. Forest Guards. Rs. 150/-

22. Foresters and Forest Guards will be granted traveling allowances for Journeys to and from the school and on ftours according to the existing rules.

III - THE COURSE

23. The medium instruction at the school will be English for the Foresters class. The Forest Guards will, however, be trained in the regional language.

24. In respect of Forest Guards greater stress will be laid in field work (and less on studies). Instructions to Forest Guards will be such that me with minimum education can follow the course.

25. (i) The subject to be taught to students during the course and detailed syllabus will be as shown in Annexure I and II.

(ii) Any alterations, modifications or changes I the syllabus shall be made by the Chief conservator on the recommendations of the Board of Control.

26. Special lectures will be given by the Principal. Lectures by some of the visiting Forest Officers on some of the above subjects shall also be arranged by the Principal. Necessary excursions and tours will be arranged by the Principal of the School. These may extend to the different types of Forests in Andhra Pradesh at the discretion of the Principal and after approval by the Chief Conservator.

27. (i) ALLOTMENT OF TIME:- The distribution of time for various items during the sessions may be roughly as follows:-

A. FORESTERS:

i. Head Quarters, lectures and practical work. 125 days.

ii. Tour and Field work. 150 days.

iii. Sundays and holidays. 90 days.

365 days

B. FOREST GUARDS:

i. Head Quarters, lectures and practical work. 50 days.

ii. Tour and Field work. 85 days.

iii. Sundays and holidays. 45 days.

180 days

(ii) The Chief Conservator is empowered to after the allotment of time specified above, on the recommendations of the Board of Control.

28. Terms and vacations:- The term will be as follows for Foresters:-

1 st term 1 st April to 14 th October.

Vacation 15 th October to 31 st October.

2 nd term 1 st November to 31 st March.

IV – EXAMINATIONS CERTIFICATES AND PRIZES

A - FORESTERS

29. The final examination will be held at the end of the session but in order to test the progress of the students they will be examined at the end of the first term. Marks obtained in the Periodical examination will be taken into consideration towards the final result, only in case the candidate fails in any subject at the final examination.

30. The papers of the final examination will be set by the external examiners in the case of Foresters. The examiners of written examination will also be the examiners for Practical examiners will send to the Chairman of the Board of control in sealed covers all the written books after valuation along with the results sheets on or before the 20 th March. The principal also will at the same time send the marks sheets of periodical examination and conduct to the chairman.

31. The following maximum will be allotted for various subjects for the Foresters class:-

Marks 1 st Term Final

i. Silviculture and Forest protection. 250 100 150

ii. Silviculture System management Plans. 100 - 100

iii. Tours. 200 - 200

iv. Mathematics and mensuration. 100 50 50

v. Utilization. 100 - 100

vi. Engineering 150 50 Theory 75

Practical 25

vii. Botany-Practical and Collection 150 - Theory 50

Practical 50

viii. Survey and drawing. 150 - Plates 25

Theory 50

Practical 75

ix. Forest Law 100 - 100

x. Accounts and Procedure. 50 - 50

xi. First Aid and Hygiene 50 - 50

xii. Physical training Musketry and sports 60 - 60

xiii. Character, discipline etc. 60 - 60

xiv. Geology and Soil Science. 50 50 -

xv. Marathon. 30 - 30

xvi. Basic logging. 50 - 50

Total 1650 350 1300

B – FOREST GUARDS

32. So far as the Forest Guards are concerned the final examination will be an oral one. It will be conducted by a Board of examiners constituted by the Chairman of the Board of Control. One Periodical examination will be conducted by the Principal during the first week of 4th month of each session.

- i. Periodical examination marks. 250
- ii. Conduct marks and tour marks. 200
- iii. Physical training and sports marks. 20
- iv. Marathon marks. 30
- v. Final Examination marks 500

1000

The Board will meet at Yellandu on the office of the Principal on or before 29th March and 29th September to check, finalize and announce the annual results of the school. The marks list will be sent to the Principal of the school by the chairman of the Board of examiners for finalizing the reports.

33. The marks of disciplines, practical work, conduct, Physical training and games will be allotted by the Principal of the School.

V – CERTIFICATES AND PRIZES

A – CERTIFICATES

34. One of the following kinds of certificates shall be awarded to the Forester trainees completing the course, according to the results obtained by them:-

- i) Honors Certificate:- For those who obtain not less than 75% marks in aggregate and not less than 50% marks in each of the forestry and non-forestry subjects.
- ii) Higher Standard Certificate:- For those who obtain not less than 60% marks in aggregate and not less than 50% marks in each of the forestry subjects and not less than 45% marks in each of the non-forestry subjects.
- iii) Lower Standard Certificate:- For those who obtain not less than 35% marks in aggregate and not less than 35% marks in each of the forestry subjects and not less than 30% marks in each of the non-forestry subjects, including first aid and Hygiene.

There will be two classes of certificates to be awarded to the Forest Guard students:-

- 1. First Class 60% and above.
- 2. Second Class 35% to 59% .

B – PRIZES

35. The following prizes will be awarded at the end for the course of the Forester students:-

- i) Honors prize to the student getting honors and the highest total for the Class as Principal Chief Conservator of Forests prize.
- ii) Silviculture prize.
- iii) Botany prize.
- iv) Utilization prize.
- v) Practical Forester prize.
- vi) Plantation prize.
- vii) Engineering prize.

Note:- No student will be awarded more than four prizes excluding Marathon prizes.

36. The Forest Guards students will be awarded the following prizes:-

- i) Student getting the highest number of marks in the aggregate honors prize.
- ii) Boat field worker's prize.
- iii) Survey prize.
- iv) Field Botany prize.
- v) Good conduct prize.
- vi) Smartness prize.
- vii) Good health prize.
- viii) Marathon race prize.

Note:- All the Forest Guards trainees have to run the cross country Marathon race of 7 ½ miles along with the Forester trainees.

37. Should a certificate granted by the Board of Control be lost and a duplicate copy is required, such duplicate copy may, at his discretion, be granted by the Principal on receipt of a fee of Rs. 2/-.

38. (a) In case any student is unable to appear for the examinations under Extraordinary reasons and who has undergone the full course of training, he may be permitted by the Chief Conservator, on the recommendations of the Board of Control, to appear along with the next batch without undergoing training a second time and if he fails he will be treated as failed candidates. If the student has undergone only a part of the training and could not attend the examinations he may be permitted by the Chief Conservator, on the recommendations of the Board of Control, to undergo training in the next batch in full and appear for the examination treating it as first attempt.

(b) If any candidate fails in the final examination he shall undergo training in the next course at his own and the period shall be treated as leave to which he is eligible.

(c) Any candidate found copying in the final examination shall be treated as having failed and he has to undergo training once again at his own cost and complete the training.

(d) If any candidate fails in the final examination for the second time, his services shall be liable for termination.

39. The Principal is authorized to incur expenditure of Rs. 250/- in each of the session of the Forest Guards Course and Rs. 500/- on Foresters Course for giving prizes and meeting expenditure on the final day function.

40. Any Forester who absent himself from the School for a total period of more than 2 months either due to reasons of ill-health or otherwise and similarly any Forest Guard student who absent himself for a total period of more than one month will, at the discretion of the Principal and subject to a report to the conservator, Khammam Circle and Chief Conservator, be reverted to his parent division and will not be eligible to earn the certificate of the school.

VI – GENERAL RULES

HOSTELS

41. i) The students on arrival at Yellandu will be allotted accommodation by the Principal.

ii) The Candidates must abide by the hostel rules and should obey and rules and orders issued by the Principal from time to time.

iii) Students shall not be permitted to leave the premises after 9 p.m. without the permission of the Principal. They will be called for the roll call at 9.00 p.m. every night.

iv) To help in the internal administration of the class each student will work by rotation as an orderly student every seek.

v) Every student will be held responsible for the loss of damage of any Government article in his charge.

vi) No students will be allowed to keep any guest in the hostel without the written permission of the Principal.

DRESS AND EQUIPMENT

42. i) The Forester students shall wear the dress prescribed in Appendix 6 in the Forest Department Code.
ii) While in the lecture room, the Foresters shall wear khaki berets.
43. i) The Forest Guard students shall wear the dress prescribed in Appendix 6 in the Forest Department Code.
ii) While in the lecture room, the Forest Guards shall wear Khaki Caps.
44. Articles of uniform will be purchased and supplied to the students by the Principal out of the equipment advance given to the students, while going so, he will follow the rules laid down in the financial and account codes.
46. The dress equipment should always be kept in neat and perfect order and the service of the School Dhobi will be made use of for washing.
47. All students of Foresters Class will be required to keep their bicycles for use on tours and at head quarters. These should be brought by them.
48. Books etc:- The students should get the following books and instruments before joining the School-Instruments box, Scale-20 to 40 divisions, protractor, set square, color box, black ink, crow quill.
49. The student should also bring with them one camp cot, mosquito net and water bottle.
50. To equip themselves properly as indicated above, the Forest students shall be eligible to receive an interest free advance of Rs. 300/- and similarly Forest Guard students will receive an advance of Rs. 150/-. The advance will be recovered from them in 25 monthly installments from the first monthly of their rejoining the division after training.
51. LEAVE:- i) No student will proceed on leave at head quarters or on tour without the written permission of the principal.
ii) Normally no leave will be given except for very special reasons.
iii) In case a student is unfit to attend the class or is unable to perform any outdoor work at Yellandu, he should produce a medical Certificate from the Medical Officer, Yellandu dispensary.
52. HOLIDAYS:- Normally all the approved holidays at head quarters will be observed as non-working days. While on tour the Principal has discretion to observe any holiday or not.
53. PHYSICAL TRAINING AND GAMES:- All students will be members of the School athletic club Physical training and evening games are compulsory at head quarters as well as in the camps. Matches will be arranged whenever and wherever possible. Games such as Hockey, Football, Cricket, Physical drill are compulsory for the students of both Classes.
54. PUNISHMENTS:- The principal shall exercise the powers of a Divisional Forest Officer and the Conservator, Khammam Circle as Chairman Board of Control, shall exercise the powers of a Conservator for the purpose of disciplinary action under the Andhra Pradesh Civil Services (Classification, Control and Appeal) Rules.
55. MUSEUMS:- The students will be permitted to freely make use of the Forest museum.

ANNEXURE-I**(Rule 25)****SUBJECTS TO BE TAUGHT TO THE FOREST TRAINEES****A. FORESTRY:-**

- i. Silviculture.
- ii. Forest protection. (Acts, Rules, Regulations).
- iii. Forest Utilization.
- iv. Forest mensuration and mathematics.
- v. Forest management and mathematics.

- vi. Logging.
- vii. Preservation of Wild Life.

B. OTHER SUBJECTS:-

- i. Botany.
- ii. Engineering.
- iii. Surveying and drawing.
- iv. Geology and Soil Science.
- v. Accounts and procedure.
- vi. First aid and hygiene by the Medical Department.
- vii. Forest Law.
- viii. Musketry training by the Police department.

DETAILED SYLLABUS**1. GENERAL SILVICULTURE:-**

1. The locality factors and their influence on forests.
 2. Definition and explanation of the common Silvicultural terms.
 3. Forest – Composition and distribution.
 - a) Pure and mixed crops.
 - b) Broad Classification of Forests India and their distribution.
 4. Natural regeneration:-
 - a) Colonization of new sites and factors affecting it.,
 - b) Natural regeneration by seed, coppice, pollarding and root suckers, best season for coppicing.
 - c) Cultural operations in natural regeneration.
 5. Artificial regeneration:-
 - a) Objects, types and methods.
 - b) Organization and execution.
 - c) Nursery technique.
 6. Afforestation:- In cultivated lands, grass lands, dry tracts, denuded hills, ravines, loose soil and saline soils.
 7. Tending, Weeding, Cleaning, Climber cutting, thinning and improvement fellings.
 8. Practical work:- Preparation of nursery beds, raising of plantation, different methods of sowing and planting, basket planting, stump planting, brick planting, pricking out, markings, thinnings, fellings cultural operations and contour trenching etc., raising teak and other plantations in current year coupe in the division adopting plantation Technique in vogue.
- 2. FOREST PROTECTION:-** protection of forests from loss or injury by (i) men, (ii) animals, (iii) plants, (iv) Atmospheric influence, (v) non-atmospheric natural phenomena, (vi) different types of forest fires and how to control them.

3. FOREST UTILIZATION:-

1. Fellings and conversion and preparation of corresponding timber accounts.

2. Transport of timber and bamboos by head load, yake load carts. Lorries, tractors.
3. Rating of bamboos.
4. Storage of timber.
5. Disposal and sale of timber, maintenance of depot accounts.
6. Classification and grading of timber (Vasam, baju, dulam, karra, and palaka).
7. Organization and care of forest labor.
8. Uses of wood.
9. Seasoning of wood.
10. Prevention of timber, Creosote and Ascu.
11. Elementary idea about saw mills and wood work shops.
12. Lac and manufacture of shellac.
13. Charcoal burning, F.R.I. Kilns, parabolid method.
14. Pulp and paper making, band made paper.
15. Grazing and grass cutting-hay and silage.
16. Common minor Forest products, beedi leaves, Myrobilon, tamarind, adda leaves, rusa grass oil, honey, wax, etc.,
17. Medicinal Trees, shrubs, Herbs, Climbers etc.

Practical Works:- Extraction and disposal of different forest produce on an experimental plot and maintenance of timber accounts as per the rules, felling, sorting, sleeper supplies, methods of transport of timber, charcoal burning, elephant management, feed and unkeep of cattle and other live stock, felling with saws and axes.

4. FOREST MENSURATION AND MATHEMATICS:-

1. Area and volume.
2. Definition of common terms, item, timber, small wood, volume table, form factor etc.
3. Highest diameter and girth measurements of trees by using instruments like abneys level calipers.
4. Estimation of volume logs, scantling, beams etc. quarter girth formula and other formulae.
5. Volume of stocked fire wood an reducing factor (what is a tonne of fuel).
6. Determination of age of trees (Stump and stem analysis).
7. Enumeration.
8. Espacement of plants per hectare.
9. Volume of trees by form factor method.
10. Volume of cuttings, embarkment and wells.
11. Commercial volume tables.

Practical Works:- Measurement of girths heights of trees, volume of standing trees and logs lying in forests, stump analysis, stacked and solid volumes of firewood.

5. FOREST MANAGEMENT AND WORKING PLANS:-

Definitions of the following: Sustained yield, rotation (Silvicultural and Physical), Working Circle, felling series, Working Plan period, final yield.

1. National Forest Policy.
2. Forest Management and its objects.
3. Stock mapping, compiling compartment descriptions and compartment history;
4. Working plans and its objects, general outline, details, it embodies, and its use for reference and execution of forest works.
5. Management of Waste Lands, rotational and periodic grazing monsoon closure.
6. Departmental exploitation: Extraction under permits and seigniorage system (The corresponding appendices under the Forest Manual and code to be consulted): transit of forest produce between Government depots, exploitation of Forest produce through the agency to consumers and purchasers; exploitation of forest produce under contract system; Exploitation of forest produce under free gants.

PRACTICAL WORK:- Forest inventory (Stock mapping) and completion of data of compartment history and description, different calculations of the volume of standing crop.

6. SILVICULTURAL SYSTEM:-

1. Silvicultural systems and their Classification.
2. Clear felling system.
3. Uniform systems.
4. Selection Systems and its modifications.
5. Coppice System and modification.
6. Improvement felling system.
7. Management of bamboo forests.
8. Detailed silvicultural study of the following species: *Tectona grandis*. *Stereulia Urens*.

Adina cordifolia. *Casuarina equisetifolia*.

Pterocarpussantalinus. *Pterocarpus marsupium*.

Anegeissus latifolia. *Xylia Xylocarpa*.

Ombax malabaricum. *Dalbergia Latifolia*.

Legerstromia parviflor. *Terminalia tomentosa*.

Acacia araica. *Eucalyptus hybrid*.

Anacardium Occidentale and the other species of *Eucalyptus*, *Dendrochalamus strictus* with notes on management of bamboos in general.

7. LOGGING:

Working hours.

Working hours Theory Practical Total

a) Felling and Conversion

- i) Technique. }
- ii) Logging tools and equipments } 6 18 24
- iii) Processing. }

b) Transportation

- i) Consideration. } 3 3 6
- ii) Different methods. }

c) Tools and maintenance

i) Teaching Techniques } 10 44 54

ii) Work Physiology } 4 2 6

23 67 90

8. PRESERVATION OF WILD LIFE AND SHIKAR:

1. Main habits and characters of Wild animals and birds found in India with special reference to Andhra Pradesh.
2. Biological control of Wild Life.
3. Study of game preserves and shikar rules.
4. Study and maintenance of sanctuaries for Wild life and birds.
5. Methods of shikar, big and small game, tiger, bear etc.,
6. Use of weapons and devices used in shikar staking.

9. FOREST BOTANY:

1. Plant Kingdom and its broad classification.
2. Elementary plant morphology, physiology and ecology.
3. Identification of important trees, shrubs and herbs by local and botanical names.
4. General Scientific description of a plant.

10. ENGINEERING:

Building Materials:- Selection of materials – timber, brick, stone, cement, lime and miscellaneous materials.

Building Construction:- Selection of sites, for forest building, foundation, masonry, doors and windows, initials and arches, stair and stair cases, carpentry and joinery, paving and flooring, roof construction and covering, painting, decoration, furniture and preparation of estimates.

Forest Roads – alignment and construction :- classes of Forest roads, gradients, method of alignment, organization of labor, demarcation, alignment, method of constructions, road drainage, metalling and preparation of estimates.

Simple bridges and Culverts:- Selection and Preparation of bridges, sites, details of construction, temporary bridges and crossing, culverts.

Water Supply:- Source of supply, sinking a well, protection and cleaning of wells.

Practical Work:- Road tracing and road marking, brick laying, preparation of different types of mortars, construction of bridges, culverts, etc., repairs of buildings, repairs and polishing and furniture, repairs to the buildings and white washings.

11. SURVETING AND DRAWING:

1. Drawing of scales.
2. Chain surveying.
3. Chain and prismatic compass surveying.
4. Determination of areas by square method and plain meter and triangulation.
5. Enlargement and reduction of maps by pantograph.
6. Conventional signs commonly used in maps.

7. Types of Forest maps.

Practical Works:- 1. Map reading. (2) Contour lines, - layout (3) lay out of small lots in forest coupe lines, transference of coupe from maps to the ground.

12. GEOLOGY:-

1. Geology and its relation of Forestry.

2. General ideas regarding the earth crusts, minerals, rocks, weathering/and agencies affecting rocks,

3. Minerals – Physical characters – Crystalline form, cleavage, hardness, luster and free colour chemical composition.

4. Classification of minerals:-

a) Essential minerals (Mica group), identification and places of occurrence, their uses,

b) economic minerals.

c) One forming mineral, particular study and identification of.

d) One of iron, manganese, aluminium and native gold etc.

5. Rocks:- Identification, places of occurrence and uses of:-

a) Granite and syanite-types.

b) Sedimentary rocks.

i) Conglomerate.

ii) Sand stone.

iii) Shale.

c) i) Mica scist.

ii) Marble.

iii) Limestone.

7. General study of the Chief Indian system and their distribution. The nature of rocks and soils obtained with reference to 1. Archean, 2. Cuddapah, 3. Vindhayan, Kurnool, 4. Deccan trap.

13. ACCOUNTS AND PROCEDURE:-

a) revenue and cash accounts and other administrative forms.

i) Maintenance of cash accounts and classification of revenue and expenditure.

ii) Submission of accounts to Range Officer, procedure of remittance of Government money into the treasury.

iii) Receipt of installment through the contractors, maintenance and submission of accounts and remittance in the treasury.

iv) Maintenance of management books for roads, buildings etc.

v) Details of work.

vi) Estimates.

b) Study of the following:

i) Muster oil (Daily labor bill).

ii) Works Voucher and first and final bills.

- iii) T.A. Bills.
- iv) Permit stock register.
- v) Timber accounts.
- vi) Cash book.
- vii) Acquittance roil.
- viii) Pay bill.
- ix) Plantation, nursery and other research registration form.
- x) Administration (Forms).
 - a) First information report of forest fires.
 - b) Detailed report of forest fires.
 - c) Framing of cases for the offences which are compoundable and study of concerned forms.
 - d) Dairy and its maintenance.
- c) Budget heads, procedure on lost cheque, procedure incases of defalcation of Government money by the subordinate staff.
- d) Office routine.

14. FIRST AID AND HYGyne:

(A Course of 8 lectures and practical).

All the general principal.

Human skeleton.

Fractures and bandages.

Dislocation and sprains.

Blood circulation.

Haeomorrhage.

Wounds, bites and stings.

Rinses, burn and scales.

Respiratory system and artificial respiration.

Poison and antidotes.

Nervous system and fainting, epilepsy, Hysteria. Common tropical diseases like malaria, dysentery, Diorahe Cholera etc.,

Lectures in first aid and hygiene will be delivered by the local medical officer.

15. FOREST LAW:-

1. Study of the State Forest Act, Cattle Trespass Act.
2. Duties and powers of Forest Officials in general and forest guards and foresters in particular.
3. Procedure of enquiry and disposal of forest offences. (the corresponding appendices in the Forest Manual and Code to be consulted).
4. Preparation of notification leading to reservation and protection.

ANNEXURE – II**(Rule 25)****SYLLABUS FOR FOREST GUARDS**

1. SILVICULTURE:- Definition, direct and indirect benefits of forests, general effects of temperature, rainfall, altitude, soil and their effective vegetation, raising of nurseries.

1. Selection of sites.
2. Type of beds.
3. Methods and time schedule of operations.
4. Cleaning of seed, their storage, maintenance, of seed, pretreatment to sowings.
5. Cleaning operations.
6. Removal and transport of nursery stock.
7. Insecticides and fungicide:- above operations in respect of the following species.
 1. Teak. 7. Sissoo
 2. Eucalyptus. 8. Cashew.
 3. Casuarina. 9. Coffee.
 4. Bamboo. 10. Softwoods.
 5. Sandal. 11. Afforestation species like Babul, Tamarind, Karanj etc.
 6. Pines.

Raising and maintenance of Plantations:-

1. Selection of sites.
2. Method of raising including advance operation.
3. Time schedule of operation upto 3 years. Above operations to the following species. (1) Teak, (2) Eucalyptus, (3) Bamboo, (4) Cashew, (5) Casuarina.

Cultural Operations:- Tending, types of weedings and their uses, pruning, climber cuttings back of damaged plants, cutting back of miscellaneous growth, coppice growth, soil working, mulching cover crop, nurse crop, laying out inspection paths, fire tracing.

Thinning:- Types of thinnings, importance of thinnings, object of thinning cycle, general idea of mechanical thinning, introduction of miscellaneous species in Afforestation areas by contour trenching methods.

2. FOREST PROTECTION:- Human Agency:- Illicit fellings, Cultivation, grazing evils and benefits, ordinary and rational grazing, kancha system, fires-evils and benefits, control of fires, fighting and fire tracing operations, general idea of other injuries by insects, fungi etc. **protection of forest fauna:-** game sanctuaries, national parks; **protection of forest Soils:-** Contour trenching, gully plugging on slopes and stream banks.

3. FIELD BOTANY:-

1. General description of plant.
2. Identification of important species by their morphological characteristics and important field characteristics.
3. Propagation by vegetative methods.
4. Dispersal of seed.
5. Collection and storage of seed.

6. Collection and mounting botanical species.

4. FOREST EXPLOITATION AND MANAGEMENT:- Elementary Principal of sustained yield, object of forest management, various systems of management, general idea or rotation, block, compartment, felling series and coupe, measurement of height at Abeny's level fixing at 45 deg. And girth and Diameter measurement with tape and clippers working and control of fuel, Coppice with reserve, Clear felling working coupe selection, bamboo felling coupes, departmental extraction of timber, fuel, bamboo, beedi leaves.

4. GEOLOGY:-

1. Geology and its relations to forestry
2. General idea regarding earth crust, origin of earth.
3. Agency of weathering types of soils in the State.
4. Minerals, essentials of forming, economics, their distribution in this State.
5. Identification of important rocks and minerals available in this state.

6. FOREST UTILSATION:- Modern and conventional implements used in the felling, logging, conversion and seasoning treatment, rafting of timber and bamboos, charcoal burning, various important Minor Forest produce products used in industry (beedi leaves, paper, gums, resin, tar, tanning, lac, medicines, Katha, fibres, flowers, eatables fruits and species) List of wood based industries and species used on match, plywood, packing cases, railway sleeper, props textile industry, agricultural implements, toys, underwater construction, sports, telegraphs, post, ship building, state frames, stacking and storing of timber, calculation of volume of round logs and sawn sizes using ready reckoner, solving practicals by taking measurements of logs and sawn timbers, study of maintenance and upkeep of logging equipment with practicals.

7. FOREST ENGINEERING

a) Building Materials:- Stone, brick, roofing, tiles, limes, sand, cement, their manufacture and qualities, preparation of mortar and concrete;

b) Building Construction:- Selection of site, foundation in B.C. soils, masonry, bricks and slabs initials and soils, general principles of construction of bunds, English and Flemish earthen and stone flooring, roofing (Thaching, tiles, Madras terrace), plastering and its uses, wood work, qualities of good constructional wood, types of joints lean to bearing and shoulder joint.

c) Types of roads, Fair weather and all weather the metal roads Material used in road construction, maintenance of metal and earthen roads.

d) Bridges, fords cross ways, culverts (pipe and box), timber, simple wooden bridge, parts of a bridge.

e) Water supply: Selection of site for a well, construction of shallow and deep wells by digging, clearing and, protection of wells.

8. SURVEY:- Chain survey: prismatic compass survey, Writing field book of survey, triangulation, laying out coupes according to working plan, measurement of horizontal distances of slopes, map reading, contours, catchment area, use of parallel roles, protection and scale verification of reserved forest boundaries with reference to village maps and section 16 notification etc.,

9. FOREST LAW:- All Sections of Forest Act with special emphasis on Section of forest offences, writing offence reports, conduct of case in courts procedure, service of summons, execution of warrants and, disposal of forest cases, sale and release of seizures etc.

Transit rules, timber and charcoal, abnus leaves, red sanders, sandal wood possession rules, teak, red sanders, sandal, cattle trespass Act, game rules, sale conditions and agreement conditions of forest leases.

10. ACCOUNTS & OFFICE PROCEDURE:- Cash Book, muster oil, invoices, remittance, stock accounts, issue of permits, duties of Forest Guards writing of reports diaries, maintenance of records, uniforms and accruements, forest labour organization, tribal welfare, relationship with co-employees, superiors and public, maintenance of boundaries and boundary works.

11. FIRST AID:- Eight lectures to be delivered by the Medical Officer, Yellandu, in all general principles of First Aid human skeleton, wounds, bites and stings, fractures and bandages, rioses, burns and scalds, dislocation and sprains, respiratory system and artificial respiration, blood circulations, poison and antidotes, Haeomorrhage nervous system and fainting, common tropical diseases like malaria, dysentery cholera etc.

ANNEXURE – III

(Rule 21)

BOND TO BE EXECUTED BY STUDENTS ALREADY IN THE SERVICE OF GOVERNMENT PREVIOUS TO ENTRY INTO THE ANDHRA PRADESH SCHOOL OF FORESTRY, YELLANDU.

KNOW ALL MEN BY THESE PRESENTS THAT WE

(b) Principal obligator, (c) of (d) (e) of (d)

(Sureties) are jointly and severally bound to the Governor of Andhra Pradesh in the sum of rupees Three hundred/one hundred and fifty to be paid to the Government of Andhra Pradesh, his successors in office or assigns or his or their attorneys for which payment will and truly to be made, we bind ourselves, our heirs, executors, administrators and representatives firmly by these presents sealed with our seal and date this day of whereas the Governor of Andhra Pradesh for himself and his successors in office and assigns has engaged to educate the said (a) at the Andhra Pradesh School of Forestry Yellandu in all matters relating to Forest Service. Forest works and forest administration that it may be deemed necessary by the Principal/Senior Instructor of the said school to teach the said (a) and has also agreed to pay him during the whole period of his stay at the said school at and after the rate of rupees per month and whereas the cost of such education without any such allowance being included is estimated to be rupees three hundred/one hundred and fifty, which shall be taken to be the actual cost for the purpose of these presents and whereas in consideration of such education and pay to be given to the said (a) aforesaid by the said Governor of Andhra Pradesh, his successors in office and assigns the said (a) has agreed with the said Governor of Andhra Pradesh his successors in office and assigns that he will after successfully complete his studies at the said school and if required to do so serve in the Forest Department of the Government of Andhra Pradesh for a period of not less than five years during the whole of which time he will diligently and efficiently do all acts and discharge all duties may be required of him to be done in his capacity as an officer of the said department.

AND WHEREAS THE said Governor of Andhra Pradesh has also on his part agreed that the said (a) shall be paid for such service at and after the rate admissible to a Forester/Forest Guard under the rules and shall be entitled to all their rights and privileges in respect of pension and promotion accorded to officers of the said department/for the time being by the rules and regulations of the department. And whereas for the purpose of securing and indemnifying the said Governor of Andhra Pradesh, his successors in office and assigns against all loss and damage which he or they might or may in any way suffer by reason of the said (a) leaving without permission the service of the said the Governor of Andhra Pradesh, his successors in office or assigns in less than five years after the completion of his studies at the said school and for the purpose also of securing the refund to the Governor of Andhra Pradesh his successors in office and assigns of the total cost including the monthly payments made to the said (a) at the said school and in consideration of the payment and education so as aforesaid to be made the given to the said (a) at the said school and as one of the conditions of the admission of the said (a) to the said school, it has (c) sureties should execute the above written bond or obligation is such that if the said (a) shall well and faithfully and diligently pursue his studies at the said school and quality for the said forest service and shall also after completing his studies at the said forest school and if so required to serve the Governor of Andhra Pradesh, his successors in office and assigns in the Forest department of the Government of Andhra Pradesh, for a period of not less than five years and shall during the whole of each period diligently and efficiently to all acts and discharge all duties which may be required to be done by him in his capacity as an officer the said (c) and (c) or either of them their or either or their heirs, executors, administrators and representatives, shall well and truly identify the said Governor of Andhra Pradesh, his successors in office and assigns against all loss and damage which he or they might or may in any way suffer by the reasons of the said (a) giving cause for dismissal either while at the said school or while without permission in less than five years after the completion of the studies of the said (a) at the said school and if the said (c) and (e) or either of them either of their heirs, executors, administrators and representatives shall also pay to the said Governor of Andhra Pradesh his successors in office or assigns all sum or sums in any way expended, paid or incurred by the said Governor of Andhra Pradesh, his successors in office or assigns in respect of the education of the said (a) at the said school, then the above written bond or obligation shall be void otherwise the same shall remain in full force and virtue and such sum or sums shall be liable to recovered from the said (a) and (c) as if such sum or sums were arrears of land revenue under the provisions of the Andhra Pradesh Revenue Recovery Act, 1964 without prejudice to any other mode of recovery, provided always, and it is hereby expressly agreed and declared that these presents shall be treated and considered as entered into under the orders of the Government of Andhra Pradesh for the performance by the said (a) and (c) of a public duty and an act in which the public are interested within the meaning of section 74 of Act 17 of 1872 of the Legislative Council of India.

In witness where of the said parties to these presents have hereunto set their respective hands and seals the day and year first above mentioned, signed, sealed and delivered – by the above named (a). (Signed, sealed and delivered by the above named (c). (in the presence of). (signed, sealed and delivered by the above (c)). (in the presence of (a)- Name of student. (b) Name of student's father or Guardian and Address. (c)Name of surety. (d) Address of surety. (e) Address of surety.

ANNEXURE – IV**(Rule 21)****AGREEMENT TO BE EXECUTED BY STUDENTS ALREADY IN THE SERVICE OR THE GOVERNMENT REVIOUS TOP ENTRY INTO THE ANDHRA PRADESH SCHOOL OF FORESTRY, YELLANDU**

* * *

Article of Agreement made and entered into this day of 199 between (a) (b) of the first part (c) of (d) son (ward) of the said (a) of the second part and the Governor of Andhra Pradesh herein after referred to as the Governor of Andhra Pradesh of the third part, where by each of the parties here to so far as the Governments and conditions of his own part are to be observed and performed, covenants with the either of them as follows.

1. The said © hereby of his own free will and consent and with the approbation and consent of the said (a) testified by the execution by him of these presents agrees with and to the Governor of Andhra Pradesh, his successors in office and assigns that he, the said (e) shall well and faithfully pursue his studies at the Andhra Pradesh School of Forestry Yellandu and quality for the Forest Service of the Governor of Andhra Pradesh.
2. The said (c) shall, after completing his studies at the said school, and if so required to do serve Governor of Andhra Pradesh and his successors in office and assigns in the Forest Department of the Government of Andhra Pradesh for a period of not less than five years and shall during the whole of such period diligently and efficiently do all acts and discharge all duties which may be required to be done by him in his capacity as an officer of the said department.
3. The Governor of Andhra Pradesh, his successors, in office and assigns, hereby engage to educate the said (c) at the Andhra Pradesh School of Forestry, Yellandu in all matters relating to Forest Service, Forest works and Forest administration that it may be deemed necessary by the Principal the Senior Instructor of the said school to teach the said (c).
4. The Governor of Andhra Pradesh shall pay the said (c) during the whole period of his stay at the said school at the rate of rupees per month in respect of pay, pension and promotion accorded to officers of the said department for the time by the rules and regulations of the department.
5. Lastly, it is hereby agreed and declared that the Governor of Andhra Pradesh his successors in office or assigns, shall be at liberty or rescinded this agreement on account of the negligence, failure to attend to duty, idleness or any in subordination or misconduct on the part of said (c) and to dismiss him from the said school or the service of the said department and the said (c) or (a) shall there upon refund to the Governor of Andhra Pradesh his successors in office and assigns total cost including the monthly payments made to the said (c) while at the same school incurred by the Governor of Andhra Pradesh or his successors in office or assigns in respect of the education of the said (c) at the said school falling which all moneys due under these presents shall be liable to be recovered from the said (c) and (a) s if they were arrears of land revenue under the provisions of the Andhra Pradesh Revenue recovery Act, 1964, without prejudice to any other mode of recovery.

In witness where of the said parties have hereunto set their respective hands and seals the date and year above written.

Signed, sealed and delivered

By the above named (a)

In the presence of

Signed, sealed and delivered

By the above named (c) in the presence of

Signed, sealed and delivered on

Behalf of the above named

Governor of Andhra Pradesh

In the presence of (f)

-
- – Name of the student's father or guardians.

- – Address of student’s father or guardians.
- – Name of the Student.
- – Address of Student.
- – Conservator of Divisional Forest Officer before whom the deed is executed.