

GOVERNMENT OF ANDHRA PRADESH  
ABSTRACT

Establishment – Forest Department – The Andhra Pradesh Forest Subordinate Services Training Rules, 2012 in supersession of the rules of Andhra Pradesh School of Forestry, Yellandu – Orders – Issued.

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ENVIRONMENT, FORESTS, SCIENCE & TECHNOLOGY (For.V) DEPARTMENT

G.O.Ms.No.5

Dated:27-01-2012

Read the following:

1. G.O.Ms.No.20, Environment, Forests, Science & Technology (For.IV) Department, dt.12.02.1997.
2. From the Prl. Chief Conservator of Forests, A.P., Hyderabad Lr.Ref.No.46504/08/G2, dated 14.11.2008 and Lr.Rc.No.34444/08/G2, Dt. 26.05.2009, 19.12.2009 & 10.1.2011.

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O R D E R:

In the G.O.1<sup>st</sup> read above, Government have issued Revised Rules for Andhra Pradesh School of Forestry, Yellandu for imparting trainings to Foresters & Forest Guards.

2. In the reference 2<sup>nd</sup> read above, the Principal Chief Conservator of Forests, A.P., Hyderabad has submitted proposals for amendment to the above rules issued vide G.O.1<sup>st</sup> read above as "The Andhra Pradesh Forest Subordinate Services Training Rules" keeping in view the creating of Andhra Pradesh Forest Academy at Dulapally during 2001 and the shifting of Andhra Pradesh Forest School, Yellandu to the Andhra Pradesh Forest Academy, Dulapally and requested to approve the proposals to facilitate legal frame work for the Andhra Pradesh Forest Academy, Dulapally.

3. Government have examined the proposals and hereby issue "The Andhra Pradesh Forest Subordinate Services Training Rules, 2012" as detailed in the Annexure to this order, in supersession of the rules of Andhra Pradesh School of Forestry, Yellandu issued vide G.O.1<sup>st</sup> read above.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

**M.SAMUEL**  
**SPECIAL CHIEF SECRETARY TO GOVERNMENT**

To  
The Prl.Chief Conservator of Forests, A.P., Hyderabad  
Copy to:  
The General Administration (Ser.F) Department.  
The Law Department.  
The Accountant General, A.P., Hyderabad.  
Sf/sc.

**//FORWARDED::BY ORDER//**

**SECTION OFFICER**

**GOVERNMENT OF ANDHRA PRADESH**  
**ENVIRONMENT, FOREST, SCIENCE & TECHNOLOGY (FOR-V) DEPARTMENT**

In Supersession of the rules for the Andhra Pradesh School of Forestry, Yellandu issued in G.O.Ms.No.20, Environment, Forests, Science and Technology (For-IV) Department dated 21.02.1997 and in view of the Forest Section Officers & Forester Beat Officers training facility having been shifted from the Andhra Pradesh School of Forestry, Yellandu to Andhra Pradesh Forest Academy, Dulapally, Hyderabad vide G.M.No.696/For-III/2000-2, Dated 19.10.2000 and G.O.Ms.No.4, Environment, Forests, Science and Technology (For-V), Department, dated 06.01.2006 respectively, the Government of Andhra Pradesh hereby makes the following rules for the training of the members of Andhra Pradesh Forest Subordinate Service at the Andhra Pradesh Forest Academy, Dulapally, Hyderabad.

1. These rules shall be called “The Andhra Pradesh Forest Subordinate Services Training Rules 2012”.

2. Applicability:-

(1) These rules shall be applicable to Andhra Pradesh Forest Academy, Dulapally, Hyderabad and similar training institutions as notified by Government for training of the following class and categories of officers of the Forest Department, categorized under Part-I of the Andhra Pradesh Forest Subordinate Service Rules, issued in G.O.Ms.No.88, Environment, Forests, Science & Technology (For-IV) Department, Dated 19.7.2000.

1. Forest Section Officer
2. Forest Beat Officer

(2) The Andhra Pradesh Forest Academy, Dulapally, Hyderabad and any other training institutions notified by Government herein after shall be called as Academy.

3. Administration:-

(1) The functioning of the Academy shall be under the control of an Officer of the rank of Additional Principal Chief Conservator of Forests / Chief Conservator of Forests/ Conservator of Forests, who shall be hereafter called as Director.

(2) There shall be a Board of Control on issues pertaining to the functioning of the Academy consisting of the following officers:-

(a) Special Principal Chief Conservator of Forests or Additional Principal Chief Conservator of Forests looking after the subject of training in the office of the Principal Chief Conservator of Forests:  
(Chairman)

(b) Director of the Academy: (Member-Convener)

- (c) Chief Conservators of Forest (T) / Conservator of Forests (T) in whose territorial jurisdiction the Academy is situated. (Member)
  - (d) One of the Additional or Deputy Director of the Academy nominated by the Chairman. (Member)
  - (e) Divisional Forest Officers (T), in whose territorial jurisdiction the Academy is situated. (Member)
  - (f) The Chairman may co-opt any other officer as a Member of the Board, if felt necessary.
- (3) The Board shall meet at least twice a year to oversee the functioning of the Academy and to finalize the results. In the absence of the Chairman of the Board of control in a particular meeting, the senior most of the members present in the meeting shall act as Chairman and conduct the proceedings and the proceedings of such meeting shall be subject to approval of the Chairman of the Board of control.

#### 4. Training Capacity:-

The maximum number of seats in the Academy per session of Forest Section Officers training will be 60 and Forest Beat Officers training will be 60. The number of seats however may be increased temporarily by the Board of Control by providing additional infrastructure and staff, if required.

#### 5. Selection for the Training:-

The selection of trainees for each session will be made from amongst the list of untrained in-service personnel as follows:-

- (1) Trainees from the cadre of Forest Section Officers shall be selected on the basis of their seniority following the Circle seniority list.
- (2) Forest Beat Officers shall be selected in order of their seniority in their respective Divisions.

The Academy will also train such other personnel sponsored by Andhra Pradesh Forest Development Corporation Ltd., Urban Development Authority, Scheduled Caste Corporation, N.G.Os and private organizations at their cost to be paid in advance, for the training session—after obtaining prior permission from the Principal Chief Conservator of Forests, depending upon the availability of seats after the needs of the forest department are met.

#### 6. Exemption from Training:-

- (1) Exemption from undergoing training to the in-service Forest Section Officers, Forest Beat Officers on any grounds, including Medical grounds, can be granted by the Principal Chief Conservator of Forests. The exemption on Medical grounds may be considered only on the certificate issued by the concerned District Medical Board. Such of those who are exempted in a particular session should invariably attend the next session.

- (2) A candidate selected and relieved from regular duties for training shall not be allowed to rejoin duty in the Circle / Division until he/she completes the duration of the course or granted exemption.
- (3) The candidates avoiding joining the training session or exhibiting bad conduct during the training period shall be liable for disciplinary action.
- (4) All untrained Forest Section Officers and Forest Beat Officers shall have to undergo their respective courses of training. Those, who are fifty (50) years of age and above, as on the date of commencement of training, will however be exempted from training, provided they relinquish all future promotions and benefits that accrue but for undergoing training.

7. **Reporting for Training:-**

The selected candidates shall report for training on the date of commencement of training. Those, who are reporting after one week will not be admitted, unless their case is recommended by the concerned Chief Conservator of Forests / Conservator of Forests under whose administrative jurisdiction they were working at the time of their relief. However, in no case admission to Forest Section Officer and Forest Beat Officer trainees shall be granted after two weeks of commencement of training.

8. **Execution of Bond:-**

All trainees of the Forest Department are required to execute Surety Bond and Agreement in the prescribed forms in Annexure-I and Annexure-II before they join training binding them to serve the Government at least for five years after the training is completed. The amount of Surety Bond to be executed is Rs.10000/- for the Forest Section Officer trainees and Rs.5000/- for the Forest Beat Officer trainees. The amount of surety bond prescribed herewith can be revised by the Government from time to time.

9. **Accommodation for the Trainees:-**

- (1) The trainings imparted are fully residential and the trainees shall stay in the hostels provided by the Academy.
- (2) The Academy shall provide water and electricity charges and rent free accommodation to the trainees. Besides, the forest department trainees who are not given Government accommodation, at their last place of posting, shall be paid House Rent Allowance to enable them to keep their families at the place of posting, from where they are deputed for Training.
- (3) **Hostels:-**
  - i.) The trainees on arrival at the Academy will be provided with free accommodation.
  - ii.) The trainees must abide by Hostel rules and also should obey orders issued by the Director from time to time.

- iii.) Trainees shall be called for the roll-call every day at 9.00 pm and they shall not be absent from Hostel premises after 9.00 pm without prior permission of the Director.
  - iv.) To help in the internal administration of the classes, each trainee will work by rotation, as a duty officer every week.
  - v.) A trainee shall be held responsible for the loss or damage of any Government article kept in his/her charge; in case of loss or damage the cost thereof shall be recovered from him/her.
- (4) No trainee shall be allowed to keep any guest in the Hostel without the written permission of the Director.

#### 10. Holidays:-

All the approved public holidays will be observed as non-working days at Head-Quarters. While on tour, the Director has the discretion to declare any day as holiday for reasons to be specified.

#### 11. Allowances and supply of equipments to Trainees:-

- (1) The Trainees will be granted travelling Allowance for journeys to the Academy and on tours as per the AP Traveling Allowance Rules, revised from time to time.
- (2) The following articles will be provided by the Academy to each of the trainees.

(1)	P.T./Sports Dress: White 'T' Shirts	2 Nos.
	White shorts	2 Nos.
	White canvas shoes.	2 Pairs
	White socks	2 Pairs
(2)	Sports Dress: Sports jersey	2 Nos. with Academy Emblem
	White shorts	2 Nos.
(3)	Field Equipment:	
	1. Haversack	1 No
	2. Water bottle	1 No
	3. Bill Hook	1 No
	4. Diameter tape	1 No
	5. Ordinary tape	1 No
	6. Field compass	1 No
	7. Field boots and patties	1 No
	8. Berets 2 Nos.	1 No
	9. Shoulder badges.	1 No
	10. Belt	1 No
	11. Whistle with cord	1 No
	12. All lecture notes	1 Set
	13. <i>Flora</i> of Andhra Pradesh (Book)	1 No

#### 12. Dress and Equipments-

- (1) The Forest Section Officer trainees shall wear the dress prescribed with the khaki beret cap.
- (2) The Forest Beat Officer Trainees shall wear the dress prescribed with the khaki beret cap.
- (3) The dress and equipment should always be kept neat and in perfect order.
- (4) Books and other equipment, not prescribed under these rules, if prescribed by the Director shall be purchased by the trainee.

13. Leave and Attendance:-

**1) Leave:**

No trainee shall proceed on leave without prior permission. No leave shall be granted except for very special reasons. In case a trainee is found unfit or unable to attend the classes or to perform any outdoor work on health reasons, he/she should produce a medical certificate from a Medical Officer.

**2) Attendance:-**

Minimum attendance should be 80% of the total number of working days in each semester failing which the concerned trainee will not be allowed to appear for the examinations. In case the attendance is below 80% and above 70% and if the trainees furnish valid reasons for not attending the classes, the Board of Control may examine the issue and permit the trainee to appear for the examinations.

14. Training Duration:-

The period of training for the Forest Beat Officers shall be six months and for Forest Section Officers one year. The training sessions shall be as follows:-

(a) Forest Beat Officers	<b>1st Batch</b>
	1 <sup>st</sup> October to 31 <sup>st</sup> March
(b) Forest Section Officers	<b>2<sup>nd</sup> Batch</b>
	From 1 <sup>st</sup> April to 30 <sup>th</sup> to September
	From 1 <sup>st</sup> October to 30 <sup>th</sup> September

15. Medium of Instruction:-

The medium of instructions in the Training Course is Telugu for Forest Beat Officers trainees and English & Telugu for Forest Section Officer Trainees. The Trainees shall be permitted to write the examinations in English/ Telugu or in Urdu, in case they cannot write examination in English / Telugu.

16. Duration of Course Components:-

- (1) The duration for various course components during the training sessions shall be approximately as follows:-

(i)	<b>Forest Section Officers Training:</b>	
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	Headquarters Lecture classes	185 days
	Tours, Field Work & Practical	90 days
	Sundays and Holidays	90 days
	<b>TOTAL :</b>	<b>365 days</b>
(ii)	<b>Forest Beat Officers Training:</b>	
	Headquarters Lectures	90days
	Tours, Field Work & practical.	45 days
	Sundays and Holidays	45 days
	<b>TOTAL :</b>	<b>180 days</b>

- (2) The Board of Control is empowered to alter the allotment of time specified for various course components.
- (3) The Director is empowered to close the Academy for maintenance of the buildings etc., for a period of two weeks in two spells i.e., once in six months, with prior intimation to all concerned well in advance.

## 17. Subjects and Syllabus:-

- (1) Subjects to be taught, detailed syllabus and course contents for Forest Section Officers training are mentioned in Annexure-III and for Forest Beat Officers in Annexure-IV.
- (2) Any alteration, modifications or changes in the syllabus shall be made by the Director in consultation with the Board of Control and the Principal Chief Conservator of Forests.
- (3) The following maximum marks are allotted for the various subjects for the Forest Section Officers Training.

Sl.	Name of the Subject	1 <sup>st</sup> Semester Marks	Final Semester Marks	Total
	<b>First semester</b>			
1	Forest Protection	50		50
2	Forest Mensuration	50		50
3	Forest Law	100		100
4	Geology and Soil Science	50		50
5	General Silviculture	100		100
6	Silviculture of Species	50		50
7	Forest Botany. Theory Practical. Identification of Specimen Herbarium Record	100 20 20 10		150
8	Forest Survey and Drawing Theory Practical Plates	100 25 25		150
9	First Aid- Hygiene	50		50
10	Tour Examinations Theory Tour Journal Herbarium	50 15 10		75
	<b>Second semester</b>			
11	Social Forestry & Extension Education		100	100
12.	2nd Tour Examination Theory Practical		50 15 10	75
13	Accounts and Office Procedure		100	100
14	Forest Management Silviculture		100	100

	systems and working plans			
15	Forest Utilization and Logging		100	100
16	Forest Engineering Theory Practical		75 25	100
17	Wildlife Management Environment and Ecology		100	100
18	Information Technology		50	50
19	Forest Research		75	75
20	P.T. Games& Sports,		60	60
21	Marathon Race.		30	30
22	Conduct and Character	30	30	60
	<b>TOTAL</b>	<b>855</b>	<b>920</b>	<b>1775</b>

- (4) The Following are the maximum marks for the various subjects for the Forest Beat Officers Training.

<b>Sl.</b>	<b>Subjects</b>	<b>Maximum Marks</b>
1	General Silviculture	50
2	Social Forestry & Extension Education	50
3	Forest Botany	50
4	Forest Utilization	50
5	Forest Protection	50
6	Forest Management	50
7	Geology and Soil Science.	50
8	Forest Engineering	50
9	Forest Law	75
10	Forest Survey	75
11	Accounts and Office Procedure	50
12	First Aid Hygiene	25
13	Wildlife Management	50
14	Tour examination (theory)	50
	Tour Journal	15
	Herbarium	10
15	Information Technology	50
16	Forest Research	50
17	P.T. Games & Sports	25
18	Marathon Race	25
19	Conduct and Character	50
	<b>Total :</b>	<b>950</b>

- (5) Physical Training and evening games are compulsory for all the trainees at head quarters.

#### 18. Examinations:-

##### (1) **Forest Section Officers Training:-**

- (a) At the end of the first Semester, the examinations for the Forest Section Officer trainees will be conducted in the following 10 subjects:-



(1) Forest Protection (2) Forest Mensuration, (3) Forest Laws, (4) Geology & Soil Science, (5) General Silviculture, (6) Silviculture of Species, (7) Forest Botany Theory & Practical (8) Forest Survey and Drawing Theory & Practicals, (9) First Aid- & Hygiene, (10) 1<sup>st</sup> Tour Examination (Theory & Practical).

(b) The final examinations at the end of the second Semester for the Forest Section Officer trainees will be held in the following 11 subjects:-

(1) 2<sup>nd</sup> Tour Examination (Theory & Practical) (2) Social Forestry, Extension Education, (3) Accounts & Office Procedure, (4) Forest Management Silviculture Systems and Working Plans, (5) Forest Utilization and Logging, (6) Forest Engineering Theory & Practical (7) Wildlife Management Environment and Ecology (8) Information Technology, (9) Forestry Research, (10) P.T. Games & Sports, (11) Marathon Race.

(2) **Forest Beat Officers Training:-**

At the end of the training examinations will be conducted for the Forest Beat Officer Trainees, through Written Examination in the following 16 subjects besides examining in PT, Games & Sports and Marathon Race separately and for the conduct and character of the trainee.

(1) General Silviculture, (2) Social Forestry Extension Education, (3) Forest Botany, (4) Forest Utilization, (5) Forest Protection, (6) Forest Management, (7) Geology and Soil Science, (8) Forest Engineering, (9) Forest Law, (10) Forest Survey, (11) Accounts and Office Procedure, (12) First- Aid Hygiene, (13) Wildlife Management, (14) Tour examination Theory & practical, (15) Information Technology, (16) Forestry Research, (17) P.T. and sports, (18) Marathon Race.

(3) **Conduct & Character:-**

Marks for conduct and character will be awarded by the Director, Andhra Pradesh Forest Academy for both Forest Section Officers and Forest Beat Officers.

(4) **Moderation Marks:-**

If any trainee fails in the final examination in three or less subjects, the Board of Control can add moderation marks to an extent of 10% of the maximum marks for the subject / subjects or 10 marks, whichever is more. Addition of moderation marks will not change the original merit list prepared on the basis of the first and final examinations.

(5) **Question paper setting:-**

The question papers setting in the final examination will be done by the external examiners (with 70% descriptive & 30% objective type for Forest Section Officer trainees and 50% short notes & 50% objective type questions for Forest Beat Officers).

(6) In case any trainee is unable to appear for the examination though he has undergone the full course of Training or failed in the final exams or could not pass even after moderations marks are given, he/she may be permitted by Principal Chief Conservator of Forests, on the recommendation of Board of Control, to attend the examinations along with the next batch, without undergoing Training for second time.

- (7) If the trainee has undergone only a part of the Training and could not attend the examination he may be permitted by the Principal Chief Conservator of Forests, on the recommendation of Board of Control, to undergo Training in the next batch in full and appear for the examination treating it as first attempt.

## 19. Certificates and Prizes:-

### **Certificates:-**

#### **(1) Forest Section Officers & Forest Beat Officers:-**

On successful completion of Training, one of the following kinds of certificates will be awarded to the trainees, according to the results. The minimum pass marks will be 40% in each subject.

**Honors Certificate:** For those who obtain not less than 75% marks in aggregate and not less than 50% marks in each of the subjects.

**Higher standard Certificate:** For those who obtain not less than 60% marks in aggregate.

**Lower Standard Certificate:** For those who pass in all the subjects and get less than 60% marks in aggregate.

### **Prizes :-**

- (2) The following prizes will be awarded at the end of the course to the Forest Section Officer and Forest Beat Officer Trainees.
1. Gold Medal to the trainee who gets the highest total number of marks in the class.
  2. The best all rounder prize to be decided by the Director in consultation with the chairman of Board of Control.
  3. Medal with certificate will be awarded for each subject topper.
  4. Any other prize that may be instituted with the approval of the Chairman, Board of Control.
- (3) If the certificate granted by the Board of Control is lost and a duplicate copy is required, such duplicate copy will be granted by the Director on receipt of a fee of Rs.100/-.

## 20. Faculty and Resource persons:-

- (1) Indian Forest Service Officers of the rank of Additional Principal Chief Conservator of Forests / Chief Conservator of Forests / Conservator of Forests shall be posted as Director of the Academy. Indian Forest Service Officers of the rank of Conservator of Forests/Deputy Conservator of Forests shall be posted as Additional Director of the Academy.
- (2) State Forest Service Officers of the rank of Deputy Conservator of Forests or Assistant Conservator of Forests shall be posted as Deputy Directors / Senior Faculty. One of the Deputy Directors of the Academy will act as Drawing and Disbursing Officer.
- (3) State Forest Subordinate Service Officers of the rank of Forest Range Officers shall be posted as Assistant Directors / Junior Faculty.
- (4) To assist the Director, Additional, Deputy and Assistant Directors and other faculties, Forest Section Officers will be posted.
- (5) Physical Training Instructors will be posted to supervise the sports, games and physical training activities.

21. Functions and Duties of Officers:-

The functions and duties of various categories of officers working in the Academy are prescribed in Annexure-V.

22. Accommodation to Academy staff and training allowance to Faculty in the Academy and deputation allowance to non-faculty members:

- (1) Rent free accommodation shall be provided to staff members including the non-teaching staff subject to availability. Water, electricity and other service charges shall, however, be paid by the occupants.
- (2) The members posted to working in the Academy as Faculty Members shall be allowed an incentive of 15% of their basic pay for the period they work in the Academy. In so far as non-faculty members who are on deputation to the Academy are concerned, they are allowed for deputation allowance at the rate of 5% on their basic pay.

23. Powers of the Director:-

- (1) The Director is empowered to discharge from training any of the trainees where he / she is found not following the instructions or unable to understand the contents of the course or found to be undisciplined and of bad conduct, with the permission of the Chairman, Board of Control. In such a case, the trainee / sponsored organization will have to forego the amount already paid.
- (2) As disciplinary authority, the Director shall exercise the powers of the Conservator of Forests and the Principal Chief Conservator of forests shall be the Appellate Authority on the orders of the Director.
- (3) The Director is empowered to invite Guest Speakers on various subjects. The Guest Speakers will be paid honorarium as approved in the Forest Schedule of Rates applicable to the Academy.
- (4) The Director is authorized to incur expenditure of Rs.15,000/- in each of the sessions of Forest Beat Officers course and Rs.30,000/- on Forest Section Officers course for giving prizes and meeting expenditure on the final day function. The amount prescribed under the rules can be revised by the Government from time to time.
- (5) The Director will nominate the External Examiners for both Forest Section Officer and Forest Beat Officer trainees with the written approval of Chairman, Board of Control.
- (6) The Director is empowered to engage part time services of a Medical Attendant on contract basis for providing medical facilities to the trainees and staff.

**M. SAMUEL**  
**Special Chief Secretary to Government**

**ANNEXURE-I** [(See Rule 8.1)]

SURETY BOND TO BE EXECUTED BY TRAINEES ALREADY IN THE SERVICE OF GOVERNMENT PRIOR TO ENTRY IN TO THE ANDHRA PRADESH FOREST ACADEMY, DULAPALLY

KNOW ALL MEN BY THESE PRESENTS THAT

(a) S/D / W of Sri  
R/O Hyderabad, on Part

**AND**

(b)  
(c)  
(d)

Called "the Sureties" are held and firmly bound unto the Governor of Andhra Pradesh (hereinafter called "the Government" which expression shall unless excluded by or repugnant to the subject or context include His / her successors, in office and assigns) in the sum of Rupees Ten thousand / Five thousand (Whatever is applicable as the case be) to be paid to the Government FOR WHICH PAYMENT will and truly be made, We hereby bind ourselves, our heirs, executors, administrators and representatives firmly by these presents as witness Our hand this \_\_\_\_\_ day of

Whereas the Government of Andhra Pradesh for himself and his successors in office and assigns has engaged to educate the said (a) \_\_\_\_\_ at ANDHRA PRADESH Forest Academy, Dulapally, Hyderabad, in all matters relating to Forest Service, Forest works and Forest Administration that it may be deemed necessary by the Director of the said academy to teach the said (a) \_\_\_\_\_ and has also agreed to pay him/ her during the whole period of His / her stay at the said Academy 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 Ten thousand / Five thousand, which shall be taken to be the actual cost for the purpose of these presents and where as in consideration of such education and pay to be given to the said (a) \_\_\_\_\_ aforesaid by the Governor of Andhra Pradesh, and his successors in office and assigns the said (a) \_\_\_\_\_ has agreed that he / she will hereafter, after successfully completing his / her studies at the said Academy 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 / she will diligently and efficiently do all acts and discharge all duties, which may be required of him / her to be done in his / her capacity as an officer of the said Department. And where as the Governor of Andhra Pradesh has also agreed that the said (a) \_\_\_\_\_ shall be paid for such service at the rate admissible to a Forest Section Officer/ Forest Beat Officer 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 indemnifying the Governor of Andhra Pradesh, his successors in office and assigns against all loss and damage which he / she (a) \_\_\_\_\_ leaving without permission the Service in less than five years after the completion of the Training, 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

Academy and as one of the education of the admission of the said (a)\_\_\_\_\_ to the said school, it has also been agreed that the said (b)\_\_\_\_\_ and said (c) \_\_\_\_\_ and (d) \_\_\_\_\_ (sureties) should execute the above written bonds subject to the condition hereinafter contained. Now the conditions of the above written bond or obligation is such that if the said (a) shall well and faithfully and diligently pursue his / her studies and at the said academy and qualify for the said Forest Service and shall also after completing his / her studies at the said Academy 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 such period diligently and efficiently to allocate and discharge all duties which may be required to be done by him / her in his / her capacity as an officer of the said (c) and (d) \_\_\_\_\_ or either of them or either of them or either of their heirs, executors, administrators and representative shall well and truly indemnify the said Governor of Andhra Pradesh, his successors in office and assigns against all loss and damage which he / she or they might or may in any way suffer by the reason of the said (a) giving causes for dismissal either while at the said Academy while in service of the said Governor of Andhra Pradesh, his successors in office or assigns, without permission in less than five years after the completion of the studies of the said (a) at the said Academy and if the said (c) or either of them or their heirs, executors, administrators or representatives shall also pay to the said Governor of Andhra Pradesh, his successors in office or assigns all sum or sum 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 Academy, then the above written bond obligation shall be void other-wise the sum 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 provision of the Madras Revenue Recovery Act, 1864, 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 IV of 1872 of he Legislative council of India.

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 (a) Name of Student (b) Address of student (c) name of sureties (d) Address of sureties (e) Rated of Pay and allowances.

In witness where as the said parties to these presents have here up to se 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 (b) -----

in the presence of -----Signed sealed and delivered by the above

(c)-----

in the presence of ----- (a) Name of student (c) Name of sureties.

## ANNEXURE II [(See Rule 8.1)]

AGGREEMENT TO BE EXECUTED BY TRAINEES ALREADY IN THE SERVICE OF THE GOVERNMENT PRIOR TO ENTRY INTO THE ANDHRA PRADESH FOREST ACADEMY, DULAPALLY.

\* \* \*

Articles of Agreement made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ 200 between (a) \_\_\_\_\_ (b) \_\_\_\_\_ of the first part (c) \_\_\_\_\_ (d) \_\_\_\_\_ son (ward) of the said (a) of the Second Part and the Governor of Andhra Pradesh, herein after referred to as the Government, of the third part. Where by each of the parties here to so far as the convenience and conditions of His / her own part are to be observed and performed, convenience with the other of them as follows.

- (1) The said (c) \_\_\_\_\_ here by of his / her own free will and consent and with the approbation and consent of the said (a) \_\_\_\_\_ ratified by the education of him / her of these presence in offices and to the Governor of Andhra Pradesh, his successors in office and assigns that the said (c) shall well and faithfully pursue his / her studies at Andhra Pradesh Forest Academy, Dulapally, Hyderabad and qualify for the Forest service of the Governor of Andhra Pradesh .
- (2) The said (c) \_\_\_\_\_ shall, after completing his / her studies at the said Academy, and if so required to do, serve the Governor of Andhra Pradesh and his successors in office and assigns of Andhra Pradesh 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 cone by him in His / her 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 Andhra Pradesh Forest Academy, Dulapally, Hyderabad, in all matters relating to Forest service, Forest works and Forest Administration that it may be deemed necessary by the Director of the said Academy to teach.
- (4) The Governor of Andhra Pradesh shall pay the said (c) \_\_\_\_\_, during the whole period of his / her stay at the said school at the rate of Rupees \_\_\_\_\_ per month in respect of pay, pension and promotion accorded to officers of the 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 and his successors in offices or assigns shall be at liberty to rescind this agreement on account of the negligence, failure to attend to duty, idleness or any in subordination or misconduct on the privileges hereby imposed on him / her but the said (c) \_\_\_\_\_ at the said school failing which all moneys due under these presents

shall be liable to be recover from the said (c) \_\_\_\_\_  
and (c) \_\_\_\_\_ as if they are arrears of Land Revenue  
under the provisions of the Revenue Recovery Act without prejudice to  
any other mode of recovery.

- 
- a) Name of students father or Guardian.
  - b) Address of students father or Guardian.
  - c) Name of student
  - d) Address of student

In witness where of the said parties of these presents have here unto  
set their respective hands and seals the date and year first above written.

Signed, sealed and delivered by the above name (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 Government of Andhra Pradesh

In the presence of (f)- - - - -

- a) Name of the student's father or Guardian
- b) Name of the student.
- f) Conservator of Forests or Divisional Forest Officers before whom the deed is  
executed

## **ANNEXURE – III** [(See Rule 17.1)]

### **SUBJECTS TO BE TAUGHT TO FOREST SECTION OFFICERS**

1. Forest Protection.
2. Forest Mensuration.
3. Forest Law.
4. Geology and Soil Science.
5. General Silviculture
6. Silviculture of Species.
7. Forest Botany.
8. Forest Survey and Drawing.
9. First Aid and Hygiene.
10. Social Forestry & Extension Education.
11. Accounts and Office Procedure.
12. Forest Management, Silvicultural systems & Working Plans.
13. Forest Utilisation and Logging.
14. Forest Engineering.
15. Wildlife Management, Environment and Ecology.
16. Information technology.
17. Forest Research.

### **SYLLABUS:**

#### **I. SOCIAL FORESTRY & EXTENSION EDUCATION**

- i. Social Forestry: Introduction to various programmes like Farm forestry, Afforestation of wastelands, Avenue plantations, Urban Forestry, Industrial green belts, Tank foreshore plantations, various other programmes implemented under the scheme.
- ii. Environment: Preservation, Maintenance of Ecological balances, pollution control in cities, towns, villages and highly industrialized zones around cities, pollution control equipment and Pollution Control Board and its duties.
- iii. Principle of extension: Adoption process by farmers, and constraints in the implementation of the programs.
- iv. Communication process and problems, publicity, propaganda.
- v. Planning and preparation of simple visual aids and reading material, extension talk.
- vi. Preparation of Liaison plan and presentation of extension talk.
- vii. Teaching skills, use of Audio Visual aids.
- viii. Motivating people for taking up social Forestry in the field.
- ix. Monitoring and Evaluation.
- x. CDM, Kyoto Protocol.

#### **II. FOREST PROTECTION**

Protection of Forests from loss or injury against

- i. Man



- ii. Pest identification of the symptoms of various diseases of important plantation crops and control measures.
- iii. Plants
- iv. Atmospheric influences
- v. Non-atmospheric natural phenomena
- vi. Different types of Forest fires and how to control them. Advance measures of Forest Protection.
- vii. Wireless net work: Introduction, scope, Installation operation, communication techniques, repairs etc.,
- viii. Forest protection Force: organization, objective.
- ix. Weapon training: Description, types, assembling, maintenance and use.
- x. Forest publicity: Objective, methods of publicity, Extension Education.
- xi. Protection measures in VSS Areas.

### **III. FOREST MENSURATION**

- i. Area and volume.
- ii. Definition of common terms, stem timber, small wood volume table, form factor etc.
- iii. Height, diameter and girth measurements of trees by using instruments like Abney's level, calipers etc.
- iv. Estimation of volume of logs, scantlings, beams etc. Quarter girth formula and other formulae.
- v. Volume of stacked fire wood and reducing factor (What is a ton of fuel).
- vi. Determination of plants per acre/Hectare.
- vii. Enumerations.
- viii. Espacement of plants per acre/hectare.
- ix. Volume of trees by form factor/method.
- x. Volume of cuttings, embankment and wells.
- xi. Commercial volume tables.
- xii. Practicals :

Measurement of girths, heights of trees volume of standing trees and of logs, stump and stem analysis, stacked and solid volumes of fire-wood.

### **IV. FOREST LAW**

- 1. Andhra Pradesh Forest Act 1967, Rules made there under
- 2. Wildlife protection Act. 1972
- 3. Forest Conservation Act 1980 and amendments there under.
- 4. Cattle Trespass Act .1871.
- 5. Duties and powers of Forest Officers.

6. Important sections related to Forest Offences with reference to section 197 of the Criminal Procedure Code, Indian Penal Code 1860, Civil Procedure Code 1908 and Indian Evidence Act, 1872.
7. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Right ) Act. 2006 and Rules, 2008.
8. Procedure of enquiry and disposal of Forest offences.

## **V. GELOGY AND SOIL SCIENCE**

1. Geology and its relation to Forestry.
2. General ideas regarding the earth crust, minerals, rocks, weathering and Agencies effecting rocks.
3. Minerals, Physical characters, crystalline form, cleavage hardness, luster, feel and colour.
4. Classification of Minerals:
  - Essential Minerals (Mica group) Identification and places of occurrence, their uses.
  - Economic minerals.
  - Ore forming minerals, particular study and Identification of Ore of Iron, manganese, Aluminum and Native gold etc.
5. Rocks :
  - Granite and syanite types.
  
  - Sedimentary rocks.
  - Conglomerate
  - Sand stone,
  - Shale
  
  - Mica Schist
  - Marble,
  - Limestone.
  
  - Identification, places of occurrences and uses.
6. Soil science :
  - Soil types, soil profile, soil analysis, humus, micro nutrients, soil atmosphere, soil moisture and soil micro organisms
1. Watershed Management & Soil and Moisture Conservation :
  - Watershed concept, PRA, Preparation of Action plan, Capacity building of stakeholders, conducting of Gramasabhas, Gender Sensitization, NTFP& Livelihood enhancement strategies etc.
  
  - Different types of SMC structures: Site selection and relevant SMC structure, Structural design of different SMC structure. Type and method of vegetation establishment as an important method of SMC measure – Correlation of between SMC structure and ground water – Impact analysis of SMC operation – SMC operation Vis-à-vis the natural regeneration, ground water charging control of soil erosion land productivity Qualification methodology to assess the impact.

## **VI. ACCOUNTS AND OFFICE PROCEDURE**

1. Revenue and Cash Accounts and their administrative forms.

- i. Maintenance of cash accounts and classification of Revenue and expenditure.
  - ii. Submission of Accounts to Range Officer, procedure of remittance of the Government money into the Treasury.
  - iii. Receipt of installment through the contractors Maintenance and submission of accounts and remittance into the treasury.
2. i) Maintenance of measurement books for roads and buildings etc.  
 ii) Details of work  
 iii) Estimates.
3. Study of the following.  
 Muster roll (Daily labour bill)  
 Works voucher and first and final bills.  
 T.A. Bills.  
 Permit stock register.  
 Timber Accounts as per Forest code.  
 Cash Books.  
 Acquittance Roll,  
 Pay bill.  
 Plantation, Nursery, and other research registration forms.  
 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) Tour diary and its maintenance.
4. Work Register.
5. Budget heads, procedure on lost cheques, lapsed cheques, procedure in cases of default of Government Money by the subordinate staff.
6. RTI ACT.
7. Maintenance of VSS accounts

## **VII. FIRST AID AND HYGIENE**

All general principles of First Aid, Human skeleton, mounds, bites, and stings, fracture and bandages, rinses burns, and scalps, dislocation and sprains, respiratory system and artificial respiration, blood circulation, poison and antidotes, Hemorrhage, nervous systems and. Fainting, common tropical diseases like malaria, dysentery, cholera etc. and common medicine prescribed for ordinary ailments and their use. Use of wild medicinal plants as a first aid and health nourisher.

## **VIII. GENERAL SILVICULTURE**

The locality factors and their influence on forest.  
 Definition and explanation of the common Silvicultural terms.  
 Forest composition and distribution.  
 Pure and mixed crops.  
 Broad classification of Forests in India and their distribution.

Natural regeneration.

Colonisation of new sites and factors affecting it.

Natural regeneration by seed, seed sowing

Coppice, pollarding, Root suckers, best season, for coppicing power of various species, tools used in coppicing, Technique of coppicing, singling operation.

Cultural operations.

Artificial regeneration.

Objectives, types and methods.

Organisation and execution.

Nursery technique.

Afforestation

In cultivated lands, grass lands, dry tracts, denuded hills, ravines, loose soil and saline soils.

Tending

Weeding, cleaning, climber cutting, thinning and improvement.

### **Practicals**

Preparation of nursery beds, raising of plantations, different methods of sowing and planting, container planting stump planting, pricking out, marking, thinnings, felling and cultural operations, contour trenching etc., raising teak plantations in current year areas in Division, sunken mounds, sawear and sake method.

## **IX. SILVICULTURE OF SPECIES**

*Tectona grandis*, *Casuarina equisetifolia*, *Adina cordifolia*, *Pterocarpus marsupium*, *Pterocarpus santalinus*, *Delbergia latifolia*, *Bombax malabaricum*, *Santalum album*, *Lagerstromia parviflora*, *Terminelia alata*, *Acacia arabica*, *Eucalyptus hybrid* and other species of eucalyptus, *Dendrocalamus strictus*, *Bamboosa arundinacea*, *Anacardium occidentale* (Cashew). *Dalbergia sissoo*, *Sterculia urens*, *Xylia xylocarpa*, *Ougenia oojenensis*, *Albizia odoratissima*, *Mitragyna parviflora*, *Gmelina arborea*, *Cochlospermum religiosum*, *Boswellia serrata*, *Semecarpus anacardium*, *Aegle marmelos*, *Terminelia chebula*, *Terminelia bellerica*, *Gyrocarpus chinensis*, *Givotia rottleriformis*, *Wrightia tinctoria*, *Saraca indica*, *Mesua ferrea*, *Azadirachta indica*, *Simarouba glauca*, *Ravuoelfia serpentina*, *Asparagus racemosus*, *Decalepis hamiltoni*, *Andrographis paniculata*, *Tinospora cordifolia*, *Holostemma tuberosa*, *Gloriosa superba*

## **X. FOREST MANAGEMENT, SILVICULTURAL SYSTEMS AND WORKING PLANS**

Definition of the following:

Sustained Yield, Rotation (Silvicultural and physical) working circles, felling series, working plan period, Final yield.

National Forest Policy.

Forest Management and its objectives.

Stock mapping, compiling compartment descriptions and compartment history.

Working plan and its objectives, general outline and its use for reference and execution of Forest works.

Management of waste Lands, rotational and periodic grazing, monsoon closure.

Departmental Extraction: Extraction under permits and seignorage system, the corresponding operations under the Forest Manual and Code to be consulted, Transit of Forest produce through the agency of consumers and purchasers, exploitation of Forest Produce under contract system, exploitation of Forest Produce under free grants.

Management: Management including Forest Management and time management and use of computers for collection and preservation of data. Sustained Yield, Silvicultural rotation and physical rotation, working circle, feeling series, working plan period and final Yield, Annual Increment.

Introduction to National forest policies 1894 and 1952 and also the latest National Forest Policy 1988s.

Preparation of working plan and management plans for Industrial catchments and for river catchments. Management of waste Lands and preparation of working plan and management plan for plantations raised under Social Forestry and Waste Land Development programmes.

Working plans and its objectives, outlines in General with reference to the field staff only.

Departmental Extraction: Introduction to various working circles in the working plan and Management plans. Forest Inventory (stock mapping) and compilation of field data, history and description of different species.

Calculation of volume of standing trees, preparation of volume tables, based on filed dates, fixation of rotation, formation of coupes, various prescriptions in Natural Forest and Artificial Regeneration areas.

Basic principles of Man Management like mobilisation of labour, labour control, securing the camp labour and payment of wages in relation to work done.

Time Management like execution of works in the time and execution of seasonal works in various Forest operations.

Land Management and Waste land development. Biomass survey, fuel and firewood crisis and solving the public demands.

#### Silvicultural Systems:

1. Silvicultural systems and their classification
2. Clear felling system.
3. Uniform system
4. Selection system and its qualifications.
5. Coppice system and modifications.
6. Improvement fellings systems.

7. Management of Bamboo Forests.
8. Sustainability in forestry.

## **XI. FOREST UTILISATION AND LOGGING**

- 1) Felling and conversion and preparation of corresponding timber accounts.
- 2) Transport of timber and bamboo's by head load, yoke load carts, lorries, tractors.
- 3) Rafting of Bamboos
- 4) Storage of timber.
- 5) Disposal and sale of timber, maintenance of Depot, and Accounts.
- 6) Gum tapping, katha manufacture, beedi leaf collection.
- 7) Sustainable harvest methods Post-harvesting processes including cleaning, drying, Grading etc., storage protocols, value additional methods, and packing of NTFP species including medicinal and aromatic plants.
- 8) NTFP & Livelihoods – Social responsibility of foresters are included.
- 9) Important wood based industries and their products, raw material for the plywood, paper and particle Board.
- 10) Identification of various NTFP products in raw.
- 11) Classification and grading of timber (vasam, baju, dulam, karra and palaka).
- 12) Organisation and care of Forest labour.
- 13) Uses of wood & Alternatives to wood.
- 14) Seasoning of wood.
- 15) Preservation of timber, cresate and Ascu methods.
- 16) Elementary idea about saw mills and wood work shops.
- 17) Lac and manufacture of shellac.
- 18) Grazing and Grass cutting. Hey and silage.
- 19) Common minor forest products, beedi leaves.
- 20) Medicinal herbs: Conservation and sustainable harvesting methods, crude drug taxonomy, relevance to primary health care in-situ enrichment planting methods. NTFP & Livelihoods, Social responsibility of Foresters.

Field Visits - Study of the above.

Logging Hand tools

Axes:

Cutting axe  
Splitting Axe.  
Pruning Axe.

Forestry Cross- Cut Saws:

Maintenance of tools  
One man & two man Crosscut saws

Peg tooth saw-Maintenance  
Racker saw-Maintenance  
Bow saw  
Power chain saw

Dragging tools:

Lifting hook, lifting tongs- spring hand tongs cart hooks, cable puller- skidding equipment and skidding carts,

Other tools:

Wedges, stem tightener, Climbing equipment Debarking spades- Files/ wet stone- setting Indicator, setting iron-Jointing tool, filing vice –anvil-hammer.

Basic Logging:

Felling technique

- A. Review of conventional felling in Indian Forests, wastage of wood.
- B. Methods of felling.
- C. Planning of felling operation
- D. Working techniques.

Safety in felling operations and work physiology.

Latest techniques of Bamboo extraction and tools used. Bamboo for Livelihoods.

## **XII. FOREST ENGINEERING**

Building Construction:

Selection/qualities of materials, Timber, brick, stone, cement, lime and miscellaneous materials.

Building Construction:

Selection of site for buildings, foundation, masonry, doors and windows, lintels and arches, stair and stair cases, carpentry and joinery, paving and flooring, roof construction and covering, painting, decoration, furniture and preparation of estimates. Importance of Curing.

Forest Roads, Alignment and Construction:

Classes of forest roads, gradients, methods of alignment organisation of labour, demarcation, alignment method of construction, road drainage and preparation of estimates.

Simple Bridges and Culverts:

Selection and preparation of bridges, sites details of constructions temporary bridges and crossings, culverts.

Construction Works :

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

Practicals

Visit & Study of Quality of Bricks and tiles- Preparation at the nearby brick kilns and tile factories-White washing, trenching, work, earth work calculations, laying of roads, types of bridges and Irish bridges in the nearby Reserve Forest.

**XIII. FOREST BOTANY**

1. Plant kingdom and its broad classification.
2. General scientific description of a plant.
3. Identification of important trees, shrubs such as Timber, MFP, Medicinal, Gum & Dye Yielding etc trees & herbs by local and botanical names and field characters.
4. Elementary plant morphology physiology and geology.
5. Bio-fertilizers, Bio-Pesticides- Their Importance & advantages in plant growth.
6. Plant growth Hormones.
7. Bio-Diesel.

Practicals :

1. Observation and study of plant morphology i.e., root, stem, leaf types & modifications.
2. Study of Field characters of important timber trees.
3. Identification and study of important trees, shrubs and herbs by local and
4. Botanical names.
5. Collection and mounting Botanical species (Herbarium).

**XIV. FOREST SURVEY AND DRAWING**

- 1) Drawing of scales.
- 2) Chain Surveying.
- 3) Chain and prismatic compass surveying.
- 4) Determination of areas using graph method., plano-meter and triangulation.
- 5) Enlargement and reduction of maps using pentagraph.
- 6) Conventional signs commonly used in maps.
- 7) Types of Forest Maps.
- 8) Usage of Dumpy Level in measuring Altitudes.

Practicals :

- 1) Map reading.
- 2) Contour lines lay out.



- 3) Layout small plots and Forest coupe lines, transference of coupe from maps to the ground and preparation of surveyed sketches and computation of areas.

## **XV. WILDLIFE MANAGEMENT, ENVIRONMENT AND ECOLOGY**

Introduction:

- Definition of Wildlife.
- Why to preserve Wildlife.
- Broad Conservation Policy of the Government addressing Wildlife and Conservation areas, Role of Forest Department.
- Role of Range Asst. in protection of Wildlife and its habits.

- 1) Field Craft :
- 2) Evidence: Identification of Wildlife evidence, making measurements, records and collections.

- Foot printer
- Feeding signs
- Wildlife remains
- Droppings
- Pellets
- Shelters
- Scent flags:- What they are, recognizing when fresh.

- 3) Other Evidences:

- Identifying Wildlife calls and what they mean.
- Wild Life Trails and Paths. The art of tracking.

- 4) Sighting :

Identification of different species of the state by distinctive features form, posture and movement, sexing and broad age criteria.

The art of approaching Wild animals. Safety precautions, recognising behavior related somatic changes in an animal. Do's and Don'ts when confronted by a dangerous animal.

The principles of locating a machan and hides. How to construct a machan, a ground hide by using local material. Camouflage. How to observe from a machan or a hide.

Recognizing simple activity patterns of animals resting feeding, play, demonstration, sparring, fighting, grooming antler rubbing, preaching, alarm, aggression, drinking, salt licking, lactating, feeding the young, wallowing, court-ship and mating, nest building, care of young pasteurization, sickness (use slides or video cassettes).

- 5) Conduct in Field:

Use of some essentials equipment. What do carry (haversack, Water bottle, tiffin, 2 meter tape, kukri or small axe, pen, pencil, tiger tracer, tracking paper, plaster of paris, field note book diary jurisdiction, map, hand compass).

Maintaining silence while in the field, using eyes and ears, how to move, forming a cognitive picture the area of traverse by remembering terrain features.

Estimating crop height, densities of vegetation at different level's, by round and ready simple methods.

How a Topographic map is read and used, how to locate your position, making simple maps, to indicate important observations, readings, contours and distinguishing heights.

How to record simple observations in a note book. The importance of time and place. Analysis of observations of sighting records, habitat information, important evidence indications.

6) Wildlife Biology and Ecology: (use charts and slides)  
Organisation of animal kingdom in brief.

Animals of the state: The characteristics of the group and their role to be emphasized.

Groups: monkeys, cats, wild boar, bears, sheep and goats antelopes, gazelle, deer and rodents.

Individual species: Elephants, Rhino, Wild Ass, Wild Pig, Wild dog, Wolves, Jackal, foxes (while dealing with species sharp focus should be on identifying the characters, habitat and general habitat distribution status, threats, if any emphasis, should be on species habitat relationship).

Birds of the State: Identification in field, common birds and endangered birds.

Reptiles of the state: Poisonous and non-poisonous snakes, what to do following snake bite. Marsh Crocodiles gharial, turtles and tortoises.

Amphibians of the State: Brief introduction as group.

Pisces of the state: Brief introduction as a group.

Insects of the state: Honeybees, butterfly, lac insect, silk worm, termites, etc.

Essential needs of animals: Ecosystem, energy, flow trophic levels, limiting factor, nick, carrying capacity, relationship between animals and habitat factors.

Animals sociology: Solitary, rigorous animals, (tiger, elephant, Sambar, Chital, Jungle, fowl, birds of prey water fowl).

Causes of Habitat degradation and species recovery.

Projects: Tiger Project, Projection Crocodiles, Rhino rehabilitation etc. (use AVS)

7) Wildlife Management :

Organisation of Wild Life wing department and responsibilities,  
Wild Life Management Plan.

Zonation- In the National Parks, sanctuaries.

Census and trend monitoring techniques, laying vegetation monitoring plots.

Survey of water holes and their maintenance, survey of caves, over hangs, Hollows, natural salt licks, how to establish artificial salt licks, preparation of simple water holes (use Avs)

Methods of capturing animals.

Care of young Wild animals which are found abandoned.

Feeding charts, Mini Zoos, Safari parks.

Prescribed burning, Execution and care, effect of fire on animals, and their habitat, grasses and tree regeneration Fire as a tool, cutting, burning and maintaining fire line.

Forest and Wildlife Management: Necessity of integrated approach.

Protection : Threat for which protection is required.

What is patrolling: Poaching, illicit cutting, cattle grazing, encroachment etc., checking barriers, unmanned barriers.

How to investigate cattle lifting cases: Cases relating to man Killing/mauling, recording field evidence preparation of documents.

Operation of VHF sets, radio sets etc., Handling fire arms.

Wildlife Health: Important contagious diseases of Wild animals (rinderpest, foot & mouth, anthrax, rabies) the carcass, need to report, disposals of carcass etc.

Discuss investigation of diseases- Cattle as a source of communicable disease. Importance of immunization of cattle.

Recognizing the State of health animals from external features.

Care for domestic Elephant.

#### 8) Tourism Education and Extension:

Tourism:- Importance regulation in time and space, conducting tours in National Parks and Wild Life sanctuaries, value of visitor discipline for avoiding disturbances, duties as a guide.

### **XVI. INFORMATION TECHNOLOGY**

Geodesy and Positioning, Maps and map reading (T – 12, P – 6)

Concepts of geodesy; size and shape of the Earth (Geo id and ellipsoid);  
Coordinate systems; Projections; Datums.

Maps and map reading – Symbolology, Units of measure, Spatial patterns,  
Scales, Accuracy, Orientation.

Map indexing systems, SOI maps – map reading, identification of features,  
themes and layers, extraction of various themes, attribute preparation.

Introduction to Information technology ( T – 10, P – 30)

Evolution, Advancements, hardware components (input and output devices, CPU), Memory – Primary and secondary and other storage devices.

Software – Classification, evolution, salient features of various operating systems (DOS, Windows flavor, UNIX flavor), exploring utilities, installation of software, networking concepts.

Application software – MS Office (MS Word, MS Excel, MS Power Point, MS Access)

FMIS and its modules

#### Geographical Information Systems (T – 12, P – 12)

Introduction, Concepts, Definitions, general capabilities, data models; database creation and attribute linking, accuracy & quality checking, GIS analysis.

Hands on exposure on Arcview and its extensions, Arc GIS and its modules – database creation and attributing; GIS analysis, map making, plotting of field books and calculations, map making of GPS readings and generation of field books.

#### Remote Sensing and Image Analysis (T – 15, P – 15)

Physics of remote sensing, basic physical principles of various sensor systems.

Need for Image processing, radiometric and geometric corrections; Contrast enhancement, FCC, data formats, utilities, map compositions.

Overview of remote sensing image interpretation, visual and digital classification, image elements of interpretation, supervised classification, spectral signatures, training sites and sets, unsupervised classification, accuracy assessment of classification.

Hands on exposure on Erdas Imagine software – data importing, image restoration, mosaicing, sub-setting, image enhancement, image classification, accuracy assessment, map composition.

#### Global Positioning Systems (T – 12, P – 12)

Surveying concepts, concepts of GPS and measurements, accuracy & errors, DOP, Applications of GPS.

GPS/DGPS Organization & Instrumentation – exposure to various GPS/DGPS instruments, Accuracy, Concepts of DGPS, Data Dictionary, Almanac.

Surveying, Mapping, Navigation, Leveling using GPS/DGPS, exploring various options.

Data downloading, uploading from and to the computer, theme preparation, linking of attributes and map making.

DGPS data processing, exporting to GIS, extraction of themes, map making.

#### Geomatics Applications (T – 12, P – 10)

Geomatics in watershed management – Watershed and characteristics, Site suitability for water harvesting structures - guidelines, criteria for selection of sites for construction of structures, map reading and navigation to the suitable sites.

Monitoring of WHS structures, collection of spatial and attribute information in the field, linking of attributes and photos, analysis of site suitability.

Geomatics in natural resources assessment – Vegetation canopy density & type mapping and monitoring, ground truthing and accuracy assessment, generalization and statistics generation.

Forest fire risk zonation using Geomatics, Map making and use of these maps in fire management and prevention of fire occurrence.

Other applications like Ground water monitoring, wildlife habitat mapping, biodiversity characterization etc

## **XVII. FOREST RESEARCH**

Nursery Technology:

Introduction- Dry and wet nurseries- permanent and Temporary nurseries- preparation of beds-Nursery equipment- Potting mixtures- Types of potting mixtures- Characters of ideal potting mixtures improved potting media- Containerized nurseries- Introduction of root trainers- Modern nursery technology- types of root trainers- poly pots – poly tubes- polythene bags- different containers- irrigation of nursery- weed and pest management in nurseries- Handling and transport of seedlings- Usage of bio-fertilizers in nursery-preparation and usage of compost and vermin compost in nurseries- Raising of bamboo and teak seedlings-stumps preparation etc.

Seed Technology:

Seed- Classification of seeds- Seed production –Seed requirement – Seed collection-Seed provenance- period of collection-Forecasting seed harvest- seeding in bamboo's- Methods of seed collection- Work plan of seed collection- Seed collection equipment's- Seed collection of short lived seeds- Seed quality- Seed vigour- collection of high quality seeds- seed stands- seed production areas- seed orchards- plus trees- progeny and provenance trial- seed extraction and processing-seed drying- seed grading- seed storage- storage of recalcitrant and orthodox seeds- types of seed storage- precautions during storage- germination-promoters of seed germination- -germination substratum- Hypogeal and epigeal germination –germination tests --kinds of dormancy- Hormones and chemicals for removal of dormancy-pretreatment of some important species-laboratory treatment to overcome dormancy-Seed deterioration and longevity-Increasing longevity-seed flora –Viability-Test for viability –Bio-chemical methods.

Plant Propagation:

Introduction-propagation by seeds- Vegetative propagation-root suckers-coppice-cuttings (rhizome, stem, branch, root section and root and shoot cuttings)- layering-grafting –budding etc-Vegetative propagating structures-lath house-propagating frames or misting units-green house- mist chambers-construction and design- raising cuttings and mist chamber-factors effecting propagation of cuttings-mist propagation- rooting hormones-treatment to mother plants-precautions-guidelines for the rooting of cuttings-Plant tissue culture

or micro-propagation-medium (used for shoot induction and multiplication) and cultures.

#### Tree Improvement:

Objectives of tree improvement –establishment of seed production areas or seed stands-Objectives Selection of forest trees- Method of selection plus trees -site and seed stand selection-treatment of seed stand and maintenance of seed stands- selection criteria of seed stands- seed orchards different types-concepts and principles in seed orchards-breeding strategy-progeny trials-size and design-planting and establishment of seed orchards-Management of seed orchards-Seed orchard records-genotype values and heritabliltiy –Randomised block design-province trial-plot size-use of trial results with special emphasis on NTFP species, medicinal plants, toy making sps. Etc.

#### Clonal Forestry:

Introduction –cloning techniques-preservation of clones-establishment of clonal multiplication areas-maintenance of CMAS-planting and establishment of clonal seed orchards-Management of clonal seed orchards.

#### Plant Conservation:

Survey of forest flora-status of forest flora-classification based on abundance- ex-situ and in-situ conservation methods –Establishment of Arboretums and Ethno botanical gardens- Demonstration plots etc.

Brief Introduction on Research Priorities in the country and the state, various institutes of ICFRE & other premier institutes concerned with forestry Research etc.

#### Planting Technology:

Productivity enhancement and Stress site planting  
Different types of site preparation, soil testing methods and soil amendment methods Plant nutrition management – Pest Management of various species – Cultural operation – Diganic farming – Vermicompost – Plantation technique and species selection for recalcitment site planting – Special soil and Moisture conservation works to specific site conditions.

## **ANNEXURE – IV** [(See Rule 17.1)]

### **SUBJECTS TO BE TAUGHT TO FOREST BEAT OFFICERS**

1. General Silviculture
2. Social Forestry & Extension Education
3. Forest Botany
4. Forest Utilization
5. Forest Protection
6. Forest Management & Extraction
7. Geology & Soil Science
8. Forest Engineering
9. Forest Law
10. Forest Survey
11. Accounts & Office Procedures
12. First Aid & Hygiene
13. Wildlife Management
14. Information technology
15. Forest Research

### **Syllabus:**

#### **1 GENERAL SILVICULTURE**

1. Definitions, direct and indirect benefits of Forest, General effects of temperature, rainfall, altitude, soil and their effective vegetation, raising of Nurseries.
2. (i) selection of site.
  - a. Types of beds, methods and time schedule of operation.
  - b. Selection of seed, their storage, maintenance of standards, pre-treatment to sow.
  - c. Cleaning operations
  - d. Removal and transport of Nursery stock
  - e. Insecticides and fungicides etc.
- (ii) Silviculture of Species
  - a) Teak
  - b) Eucalyptus
  - c) Casurina
  - d) Bamboo
  - e) Sandal
  - f) Pines
  - g) Sissoo
  - h) Cashew
  - i) Coffee
  - j) Soft woods
  - k) Afforestation of species like babul, tamarind etc.
3. Raising and maintenance of plantation.
  1. Selection of site
  2. Method of raising
  3. Plantation time schedule of operation up to 3 years  
(1) Teak (2) Eucalyptus (3) Bamboo (4) Casurina
4. Cultural operations.

- a) Tending types of weeding and their uses, pruning, climber cutting, cutting back of miscellaneous growth coppice growth.
- b) Soil working, mulching cover, Nursery group, laying out inspection paths, fire tracing, thinning what are thinnings, importance of thinning, objective of thinning cycle, General idea of Mechanical thinning

Introduction of miscellaneous species in afforestation areas by contour trenching method.

## **2. SOCIAL FORESTRY AND EXTENSION EDUCATION**

- i. Social Forestry introduction to various programmes like Farm Forestry, Afforestation of Waste lands. Avenue plantations, urban Forestry, industrial Green belts, Tank fore shore plantations. various programmes implemented in Andhra Pradesh and problems in implementing the scheme.
- ii. Environment preservations, Maintenance of Ecological balance, pollution control in cities, towns , villages and highly Industrialized zones around cities, pollution control equipment and pollution control Board and its duties
- iii. Principles of extension- Adoption process by farmers and constraints in implementing the programmes
- iv. Communication process and problems, publicity, propaganda in Social Forestry.
- v. Planning and preparation of simple visual aids and reading material, extension talk.
- vi. Preparation of liaison plan and presentations of extension talk.
- vii. Teaching skills - use of Audio Visual aids.
- viii. Motivating the people for taking up social Forestry, Field trip.
- ix. Monitoring and evaluation.

## **3. GEOLOGY AND SOIL SCIENCE**

Geology and its relations to Forestry

General idea regarding earth crust, origin of earth

Agency of weathering, types of soils in the state.

Minerals. Essentials of formation, economical minerals and their distribution in the State

Identification of important rocks and minerals available in this state.

Soil science:

Soil types, soil profile, soil analysis, humus, micro nutrients, soil atmosphere, soil moisture and soil micro organisms

Watershed management & Soil And Moisture Conservation :



Water concept, PRA, Preparation of Action plan, Capacity building of stakeholders, conducting of Gramasabhas, Gender Sensitization, NTFP & Livelihood enhancement strategies etc.

Different types of SMC structures: Site selection and relevant SMC structure, Structural design of different SMC structure. Type and method of vegetation establishment as an important method of SMC measure – Correlation of between SMC structure and ground water – Impact analysis of SMC operation – SMC operation Vis-à-vis the natural regeneration, ground water charging control of soil erosion land productivity Qualification methodology to assess the impact.

#### **4. FOREST LAW**

1. A.P. Forest Act 1967, Rules made there under
2. Wildlife protection Act. 1972
3. Forest Conservation Act 1980 and amendments there under.
4. Cattle Tress Pass Act .1871.
5. Duties and powers of Forest Officers.
6. Important sections related to Forest Offences with reference to Section 197 of the Criminal Procedure Code 197, Indian Penal Code 1860, Civil Procedure 1908 and Indian Evidence Act.1872.
7. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Right) Act. 2006 and Rules, 2008.
8. Practices writing A, B and C forms for Forest Offences.
9. Andhra Pradesh Forest Produce Transit Rules, 1970

#### **5. ACCOUNTS AND OFFICE PROCEDURE**

1. Cash book, Muster rolls, invoices, remittances, stock accounts, issue of permits, duties of Forest Guards, writing of reports, diaries.
2. Maintenance of records,. uniform and accoutrements.
3. Forest labour organization, tribal welfare relationship with co-employees, superiors and public.
4. Maintenance of boundaries and boundary works.
5. VSS accounts.

#### **6. FOREST BOTANY**

1. Elementary knowledge of classification of plant kingdom.
2. General description of a flowering plant.
3. Root – functions – modifications.
4. Leaf – functions – types, shapes and its usefulness in the identifications of species.
5. Stem – functions – modifications.
6. Flower – parts and functions.
7. Fruit and seed – kinds of fruits – dispersal of fruits and seeds, regeneration propagation method, collection storage.
8. Field characters of important timber trees.
9. Identification of important trees, shrubs and herbs by local and botanical names.

10. Bio-fertilizers, Bio-Pesticides- Their Importance & advantages in plant growth.
11. Plant growth Hormones.
12. Bio-Diesel.
13. Collection of seed & storage

#### Practicals

1. Observation and study of plant morphology i.e., root, stem, leaf types & modifications.
2. Study of Field characters of important timber trees.
3. Identification and study of important trees, shrubs and herbs by local and Botanical names.
4. Collection and mounting Botanical species (Herbarium).

### 7. **ENGINEERING**

- a. Building materials, selection (Quantities) of good brick stone, tiles, lime, cement and calculation of brick and tiles, for construction work.
- b. Building construction:- Selection of site for building construction, plinth area carpentry, brick masonry (English and Flemish bonds) stone Masonry, roofing, (Thatching tiles, R.C.C roof), plastering, pointing, qualities of good constructional wood simple calculations of plinth and carpet areas.
- c. Roads:- Part of road, classification of roads, defining and uses of gradients, camber, super elevation clear vision Breast wall, retaining wall, catch water drain, hairpin bends, calculations of earth work (preparation of a modern road).
- d. Bridges:- Fords, Irish bridges, cause ways, culverts, (pipe, box, slab arch) simple wooden bridge, suspension bridge.
- e. Water supply:- Selection of site for digging a well protected water supply (Classification, sedimentation and sterilization) clearing of wells).

#### Practicals

Bricks and tiles- Preparation at the nearby brick kilns and tile factories-White washing, trenching, work, earth work calculations, laying of roads, preparation of bridges and Irish bridges in the near by Reserve Forest.

### 8. **FOREST PROTECTION:**

Human Agency, illicit fellings, cultivation, grazing evils and benefits, kinds or grazing, kancha system, evils of Forest fires, benefits of Forest fires, fire fighting, fire tracing operations, injuries, to forests by insects. Climate change-Forest protection.

Social mobilisation, Social Fencing and formation of VSS. Social responsibility of Forest Officials.

### 9. **FOREST UTILISATION:**

- (1) Modern conventional implements used in felling, logging and conversion.

- (2) Seasoning treatment, rafting of timber and bamboo charcoal burning.
- (3) Various Minor Forest Produce products, used in Industry paper soils, gums, resin, tar, tanning, katha, fibers.
- (4) List of wood based Industries and species used. Match wood, ply wood, packing cases, Railway sleepers, Textiles, Industry, props.
- (5) Agricultural implements, toys, under water constructions, ship building, sports, slate frames, storing stacking of timber.
- (6) Livelihood enhancement.
- (7) Formation of CEGs. (Common Enterprise Groups)
- (8) Livelihood Survey & Marketing

## **10. FOREST EXPLOITATION AND MANAGEMENT**

1. Elementary principles of sustained yield.
2. Objectives of Forest Management and various systems of Management.
3. General idea of rotation, block, compartment, felling series and coupes.
4. Measurement of height with Abney's level fixing at 45 degrees. Girth and diameter measurement with tape and calipers.
5. Working and control of fuel, C.W.R. C.W.C selection of Bamboo felling coupes.
6. Departmental extraction of timber, fuel and beedi leaf.

## **11. FOREST SURVEY:**

1. Systems of Measurement-(British- metric systems and usage)
2. Scale-Representative fraction.
3. Types of chains and tapes-metric chain, advantages, disadvantages of chain,
4. Ranging out of a survey line and measuring, direct ranging , reciprocal ranging
5. Chaining on sloping ground using stepping method.
6. Offsets-perpendicular, oblique, taking offsets to roads, fencing, buildings etc.
7. Chain and Prismatic Compass survey.
8. Plotting and computation of areas.

## **12. WILDLIFE MANAGEMENT**

- 1) Wildlife: Need to preserve, broad Conservation Policies, and role of Wildlife Staff.
- 2) Identification of Wildlife: Evidence life foot prints, feeding signs, droppings, pellets, shelters, scent flags, etc. and making measurements on them.
- 3) Identification of species, safety, precautions in Wildlife areas, principles of locating bids and recognizing simple activity patterns.
- 4) Conduct in Wildlife areas, use of some essential equipment and analysis of observations recorded.
- 5) Wildlife biology and ecology of important species of the state.

- 6) Field Identification of birds, reptiles, amphibians and insects.
- 7) Animal sociology, Wildlife habitat and specific animal projects.
- 8) Identification of common trees, shrubs, grasses and herbs with particular reference to Wildlife Management.
- 9) Working of forests, collection of minor forest produce, and effect of other forestry activities on Wildlife habitat.
- 10) Organizations of Wildlife Wing and their responsibilities.
- 11) Sanctuaries, National Parks and restrictions therein.
- 12) Census techniques and survey of water holes etc.
- 13) Establishment of artificial salt licks, water holes and other infrastructure for Wildlife.
- 14) Methods of capturing animals and care of young Wild animals.
- 15) Fire protection in sanctuaries and Other Wildlife areas.
- 16) Protection of Wildlife areas.
- 17) Protection of Wildlife affected cases of cattle and human kills,
- 18) Important diseases of Wild Animals, preventive and remedial measures.
- 19) Wildlife Act, its provisions and procedures for dealing with Wildlife management and offences.

### **13. FIRST AID AND HYGIENE**

All General Principles of First Aid. Human Skeleton, wounds, bites, and strings, fracture and bandages rinses, burns and scalps, dislocation and sprains, respiratory systems and artificial respiration, blood circulation poison and antidotes. Hemorrhage, Nervous system and fainting, common tropical diseases like malaria, dysentery, cholera etc, and common medicine prescribed for ordinary ailments and their use.

### **14. INFORMATION TECHNOLOGY**

Maps and map reading (T – 6, P – 6)

- Map indexing, SOI maps – map reading, identification of features using symbols, legends, scales etc, themes and layers, extraction of various themes, attribute preparation.

Introduction to Information technology (T – 6, P – 20)

- Evolution, Advancements, hardware components (input and output devices, CPU), Memory – Primary and secondary and other storage devices.
- Software – Classification, evolution, salient features of various operating systems (DOS, Windows flavor, UNIX flavor), exploring utilities, installation of software, networking concepts.
- Application software – MS Office ( MS Word, MS Excel, MS Power Point, MS Access)
- FMIS and its modules

Geographical Information Systems (T – 8, P – 8)

- Introduction, Concepts, Definitions, general capabilities, data models; database creation and attribute linking, GIS analysis.
- Hands on exposure on Arcview and its extensions, GIS and its modules – database creation and attributing; GIS analysis, map making, plotting of field books and calculations, map making using GPS readings and generation of sketches using computers..

### Remote Sensing and Image Analysis (T – 10, P – 10)

- Physics of remote sensing, basic physical principles of various sensor systems, Image processing, image interpretation, accuracy assessment.
- Hands on exposure on Erdas Imagine software – data importing, image restoration, mosaicing, subsetting, image enhancement, image classification, accuracy assessment, map composition.

### Global Positioning Systems (T – 8, P – 12)

- Surveying concepts, concepts of GPS and measurements, accuracy & errors, DOP, Applications of GPS, exposure to various GPS/DGPS instruments, Accuracy, Concepts of DGPS, Data Dictionary, Almanac.
- Surveying, Mapping, Navigation, Leveling using GPS/DGPS, exploring various options.
- Data downloading, uploading from and to the computer, theme preparation, linking of attributes and map making.
- DGPS data processing, exporting to GIS, extraction of themes, map making.

### Geomatics Applications (T – 8, P – 8)

- Geomatics in watershed management – Watershed and characteristics, Site suitability for water harvesting structures, map reading and navigation to the suitable sites.
- Monitoring of WHS structures, collection of spatial and attribute information in the field.
- Geomatics in natural resources assessment – Vegetation canopy density & type mapping and monitoring, ground truthing and accuracy assessment.
- Forest fire risk zonation using Geomatics, Map making and use of these maps in fire management and prevention of fire occurrence.
- Other applications like Ground water monitoring, wildlife habitat mapping, biodiversity characterization etc

## **15. FOREST RESEARCH**

### Nursery Technology:

Introduction- Dry and wet nurseries- permanent and Temporary nurseries- preparation of beds-Nursery equipment- Potting mixtures- Types of potting mixtures- Characters of ideal potting mixtures improved potting media- Containerized nurseries- Introduction of root trainers- Modern nursery technology- types of root trainers- poly pots – poly tubes- polythene bags- different containers- irrigation of nursery- weed and pest management in nurseries- Handling and transport of seedlings- Usage of bio-fertilizers in nursery-preparation and usage of compost and vermin compost in nurseries- Raising of bamboo and teak seedlings-stumps preparation etc.

### Seed Technology:

Seed- Classification of seeds- Seed production –Seed requirement – Seed collection-Seed provenance- period of collection-Forecasting seed harvest- seeding in bamboo's- Methods of seed collection- Work plan of seed collection- Seed collection equipment's- Seed collection of short lived seeds- Seed quality- Seed vigour- collection of high quality seeds- seed stands- seed production areas- seed orchards- plus trees-

progeny and provenance trial- seed extraction and processing-seed drying- seed grading- seed storage- storage of recalcitrant and orthodox seeds- types of seed storage- precautions during storage- germination-promoters of seed germination- -germination substratum- Hypogeal and epigeal germination -germination tests --kinds of dormancy-Hormones and chemicals for removal of dormancy-pretreatment of some important species-laboratory treatment to overcome dormancy-Seed deterioration and longevity-Increasing longevity-seed flora - Viability-Test for viability -Bio-chemical methods.

#### Plant Propagation:

Introduction-propagation by seeds- Vegetative propagation-root suckers-coppice-cuttings (rhizome, stem, branch, root section and root and shoot cuttings)- layering-grafting -budding etc-Vegetative propagating structures-lath house-propagating frames or misting units-green house- mist chambers-construction and design- raising cuttings and mist chamber-factors effecting propagation of cuttings-mist propagation- rooting hormones-treatment to mother plants-precautions-guidelines for the rooting of cuttings-Plant tissue culture or micro-propagation-medium (used for shoot induction and multiplication)and cultures.

#### Tree Improvement:

Objectives of tree improvement -establishment of seed production areas or seed stands-Objectives Selection of forest trees- Method of selection plus trees -site and seed stand selection-treatment of seed stand and maintenance of seed stands- selection criteria of seed stands- seed orchards different types.

#### Clonal Forestry:

Introduction-cloning techniques-preservation of clones-establishment of clonal multiplication areas-maintenance of CMAs-planting and establishment of clonal seed orchards-Management of clonal seed orchards.

**ANNEXURE-V** [(See Rule 21)]

**Duties and functions of various categories of officers working at  
Andhra Pradesh Forest Academy, Dulapally, Hyderabad**

1.	Director (Additional Principal Chief Conservator of Forests / Chief Conservator of Forests/Conservator of Forests, IFS cadre)	<ul style="list-style-type: none"><li>i. Will be responsible for overall administration of the Academy.</li><li>ii. Director report to Principal Chief Conservator of Forests/Special Principal Chief Conservator of Forests / Additional Principal Chief Conservator of Forests, in-charge of training.</li><li>iii. Will be responsible for giving general direction and doing supervision of all works, control of establishment, expenditure and all other administrative matters.</li><li>iv. Will plan for the in-service trainings of different cadres of Forest Officers in the State.</li><li>v. Will be responsible for any other works assigned by Principal Chief Conservator of Forests / Special Principal Chief Conservator of Forests / Additional Principal Chief Conservator of Forests, in-charge of training.</li></ul>
2.	Additional Director (Conservator of Forests /Deputy Conservator of Forests cadre)	<ul style="list-style-type: none"><li>i. Will be in-charge of Forest Section Officer &amp; Forest Beat Officer trainings and deal with all the matters related to these trainings.</li><li>ii. Will co-ordinate with all faculty members in preparation of time table, field trips and entrusting field work to Forest Beat Officer &amp; Forest Section Officer trainings.</li><li>iii. Will assist Director in organizing refresher trainings.</li><li>iv. Will be responsible for any other works assigned by the Director.</li></ul>
3.	Deputy Director (Deputy Conservator of Forests (State) /Assistant Conservator of Forests cadre)	<ul style="list-style-type: none"><li>i. All the Deputy Directors shall act as faculty members.</li><li>ii. Apart from functions of faculty they will be entrusted to be in-charge of certain works for the maintenance of Academy.</li><li>iii. The Director shall entrust the functions of Drawing and Disbursing officer (DDO) to one of the Additional / Deputy Director. Further, one of the Deputy Directors will act as Warden of the Hostels for all trainings, one of the Deputy Directors as Course Director for Forest Section Officer trainees and one of the Deputy Directors as Course Director for Forest Beat Officer trainees.</li><li>iv. All the Additional/ Deputy Directors are directly responsible to the Director and discharge any other works assigned by the Director.</li></ul>
4.	Assistant Director /Junior Faculty (Forest Range Officer cadre)	<ul style="list-style-type: none"><li>i. One of the Assistant Directors will be entrusted the job of Asst. Warden, who will assist the Warden in looking after the day to day affairs of Forest Section Officer &amp; Forest Beat Officer trainees pertaining to kitchen, Hostel Rooms, Roll Call etc.</li><li>ii. Assistant Directors will accompany the trainees whenever they are on tours / field trips.</li><li>iii. One Assistant Director will act as Assistant Course</li></ul>

		<p>Director for Forest Section Officer training and another Asst. Director for Forest Beat Officer training.</p> <p>iv. All the Assistant Directors apart from execution of works will also assist the Faculty in taking practical sessions.</p> <p>v. If any Assistant Director is competent in teaching, he / she shall also be drafted as faculty for both the trainings.</p> <p>vi. All the Assistant Directors are directly responsible to the Director and discharge any other works assigned by the Director.</p>
5.	Forest Section Officers	<p>i. Will assist the Assistant Directors, to whom they are attached for the execution and completion of works allotted to them for the administration of the Academy.</p> <p>ii. Will attend all the jobs that are entrusted to them.</p> <p>iii. One of the Forest Section Officers will be allotted the job of attending at Help Desk/reception in the Academy.</p> <p>iv. Will assist the Asst. Directors in conducting the tours / field trips / field work of trainees.</p> <p>v. Will be responsible for any other works entrusted to them for the Administration of the Academy.</p>
6.	Physical Training Instructor	<p>i. Will train the trainees in morning PT/yoga/games and sports.</p> <p>ii. Will train the trainees in drill and March-Past</p> <p>iii. Will assist the Warden during the Roll-Call at night in the Hostel</p> <p>iv. Will be responsible for the overall physical development and smartness of the trainees.</p> <p>v. PTI shall assist the Asst. Director in conducting Field Work / Field Trip/study tours.</p> <p>vi. Will be responsible for any other works entrusted to them, such as organizing state level sports meet etc. in the Academy.</p>

**M. SAMUEL**  
**Special Chief Secretary to Government**