

**MAHARASHTRA AGRICULTURAL UNIVERSITIES  
EXAMINATION BOARD, MCAER BUILDING,  
132/B BHOSALE NAGAR, PUNE-411 007.**

**INFORMATION BULLETIN**



**COMMON ENTRANCE TEST  
FOR  
ADMISSION TO POST GRADUATE PROGRAMME  
IN  
STATE AGRICULTURAL UNIVERSITIES OF MAHARASHTRA  
2014-15**

## 1. Introduction

The Maharashtra Council of Agricultural Education and Research (MCAER) Pune is a statutory body which has been constituted under Section 12 of Maharashtra Agricultural Universities (Krishi Vidyapeeth) Act 1983. In exercise of the powers conferred upon MCAER vide provision in the Proviso (g) of Sub-section 3 of Section 12 of the Act, common regulations for admissions to various degree programmes in State Agricultural Universities have been formulated.

Directions have been given by the MCAER vide its Resolution No. 23/75/2008 dt. 27<sup>th</sup> March, 2008 to conduct the Common Entrance Test (CET) through the Maharashtra Agricultural University Examination Board (MAUEB), Pune for admission to various Post Graduate programmes in the State Agricultural Universities (SAUs) in Maharashtra.

The eligibility for admission and the CET has been given in the subsequent sections. Admission will be given on the basis of merit formulated by considering weightage of **70 per cent of the CET** score and **30 per cent of the CGPA** of the student. Other weightages if any and the reservations as per guidelines of the State Government will also be considered. The details regarding these are to be seen in the “Admission Prospectus 2014-15” to be published by the MCAER.

## 2. Post Graduate Courses

The Post Graduate courses, along with eligibility, available in the SAUs are as given in the Table below. For information regarding availability of courses, number of seats at a particular PG centre / University; please refer to the “Admission Prospectus” published by the MCAER.

Sr. No.	Degree Course	Duration	Credits	Eligibility
1.	M.Sc. (Agri.)	2 years (4 semesters)	55	B. Sc. (Agri.) or B. Sc. (Hort.) or B. Sc. (Forestry) or B. Sc. (Agril. Biotechnology) or B.B.M. (Agri.) / B.Sc. (A.B.M) or B. Tech. (Food Sc. / Tech.) * or B. Tech. (Agri. Engg.) ** or B. Sc. (Hon.) Home Science*** of Agril. university only and passing CET for M.Sc. (Agri.)
2.	M.Sc. (Hort.)	2 years (4 semesters)	55	B. Sc. (Hort.) or B. Sc. (Agri.) or B. Sc. (Forestry) of Agril. university only and passing CET for M.Sc. (Hort.)
3.	M.Sc. (Forestry)	2 years (4 semesters)	55	B. Sc. (Forestry) or B. Sc. (Agri.) or B. Sc. (Hort.) of Agril. university only and passing CET for M.Sc. (Forestry)
4.	M.Sc. (Home Science)	2 years (4 semesters)	55	B.Sc. (Hon.) Home Science of Agril. university only and passing CET for M.Sc. (Home Sc.)
5.	M.Sc. (Agril. Biotechnology)	2 years (4 semesters)	55	B. Sc. (Agril. Biotechnology) or B. Sc. (Agri.) or B. Sc. (Hort.) or B. Sc. (Forestry) or B. Tech. (Food Sc./Tech.) of Agril. university only or B.F.Sc. and passing CET for M.Sc. (Agril Biotechnology.)
6.	M.Tech. (Agri. Engg.)	2 years (4 semesters)	55	B. Tech. (Agri. Engg.) of Agril. university only and passing CET for M.Tech. (Agril. Engg.)
7.	M.Tech. (Food Tech.)	2 years (4 semesters)	55	B. Tech. (Food Sc./Tech.) of Agril. university only and passing CET for M.Tech. (Food Tech.)

8.	M.B.A. (Agri)	2 years (4 semesters)	55	B.B.M. (Agri.) / B. Sc. (A.B.M) or B. Sc. (Agri.) or B. Sc. (Hort.) or B. Sc. (Forestry) or B. Sc. (Agril. Biotechnology) or B. Tech. (Food Sc./Tech.) or B. Tech. (Agri. Engg.) or B.Sc. (Hon.) Home Sc. of Agril. university only or B.F.Sc.and passing CET for M.B.A. (Agri.)
9.	M.F.Sc.	2 years (4 semesters)	55	B.F.Sc. and passing CET for M.F.Sc.
10.	M.Sc. (P.H.M.)	2 years (4 semesters)	55	B.B.M. (Agri.) / B. Sc. (A.B.M) or B. Sc. (Agri.) or B. Sc. (Hort.) or B. Sc. (Forestry) or B. Sc. (Agril. Biotechnology) or B. Tech. (Food Sc./Tech.) or B. Tech. (Agri. Engg.) or B.Sc. (Hon.) Home Sc. of Agril. university only or B.F.Sc. and passing CET for Post Harvest Management (PHM).

\* For M.Sc. (Agri) Food Science & Technology B.Tech (Food Science / Tech.) students are also eligible.

\*\* For M.Sc. (Agri) Agril. Meteorology, B.Tech. (Agril. Engg. ) students are also eligible.

\*\*\* For M.Sc. (Agri) Agril. Extension Education, B. Sc. (Hon.) Home Science students are also eligible.

### 3. Eligibility for CET

Only the students possessing the required qualifying degree as per the eligibility as laid down in the Table under point No. 2 or those students who have appeared for the final degree examination for the Academic year 2013-14 are eligible to appear for the CET 2014. A student is eligible to take as many CETs as per his / her eligibility for admission to a PG programme. For example, a student of B.Sc. (Agril. Biotechnology) can appear for CETs for M.Sc. (Agril. Biotechnology), M.Sc. (Agri.) and M.B.A. (Agri.). However, he / she will have to submit only one application form (printout of online application) along with only one challan common towards examination fees @ fixed rate for each CET and with only one set of necessary enclosures as mentioned in “Instructions for filling the application form”. In such cases the student will have to indicate other / additional options of subject streams (**As per eligibility**) in which CET is to be given.

### 4. Examination Fees

A student will have to pay the examination fees through self generated challan, after submitting online application form, you should take SBI Bank Challan printout which is in two parts. Required fee is printed on your SBI Bank Challan. With this challan pay the fee in any branch of State Bank of India on second working days onward, from the day of printing challan and obtain your copy of challan indicating Journal Id/ Transition ID. No separate challan is required for each CET. The student wishes to appear for more than one CET, one common challan will be required for the Exam Fees that will be in the multiple of no. of CETs the student has applied for.

The examination fees **per CET** to be paid through challan will be as follows:

- |   |   |                          |
|---|---|--------------------------|
| 1. Students belonging to Open category      | : | Rs. 600/- <b>per CET</b> |
| 2. Students belonging to Reserved category* | : | Rs. 300/- <b>per CET</b> |
| 3. Students belonging to Other States       | : | Rs. 600/- <b>per CET</b> |

\* For claiming concession in examination fees under reserved category, the candidate must mention their category (in case of SC, ST candidates and other reserved category). In absence of reserved category the candidate belonging to reserved category will be treated as “Open category” for the purpose of CET and should pay the fees of Rs. 600/- per CET. **The candidate should not send hard copy of application form, challan and supporting documents to the MAUEB, Pune office.**

## 5. Important Dates and Examination Schedule

- |   |              |
|---|--------------|
| 1) Date of Notification                         | : 01.04.2014 |
| 2) Last date of receiving online Applications   | : 25.04.2014 |
| 3) Last date of payment of fees through challan | : 28.04.2014 |
| 4) Date of Final list of eligible candidates    | : 10.05.2014 |
| 5) Date of Online Admit Cards*                  | : 10.06.2014 |

\* To be issued to those candidates whose applications have been accepted online. Admit cards will be available online.

Candidate should click on [Online Admit Card link](#) to download Admit Card.

## 6) Examination Programme:

Day	Streams	Date	Time (hrs.)
1.	Agriculture, Fisheries	06.07.2014	10.00 to 12.00
2.	Post Harvest Management	07.07.2014	10.00 to 12.00
3.	Horticulture, Food Science	08.07.2014	10.00 to 12.00
4.	Forestry, Home Science	09.07.2014	10.00 to 12.00
5.	Agril. Biotechnology, Agril. Engg.	10.07.2014	10.00 to 12.00
6.	Agri. Business Management	11.07.2014	10.00 to 12.00

- |  |              |
|--|--------------|
| 7) Declaration of Results and Display of | : 30.07.2014 |
|--|--------------|

Answer Keys of all streams (On MCAER Website)

## 6. Scheme of Examination

- 1) The Examination will be conducted for 200 marks. The question booklet will contain 200 questions of objective nature along with answers in the form of 4 alternatives. There will not be any choice or option for questions, i.e. all questions have to be answered.
- 2) The candidate has to mark the correct answer by blackening the corresponding circle against the serial number of the question in the OMR sheet with black ink ballpoint pen only. Out of four circles provided for selection of an answer against a question, the candidate should fill up only one circle completely. **CHANGING AN ANSWER**

**IS NOT ALLOWED.** The candidate must fully satisfy himself about the accuracy of the answer before darkening the appropriate circle. The answer once marked is final; any change in the option once marked, done by any method, will amount to an invalid/incorrect response. Each correct answer will be given one mark. There shall be no negative marking for wrong answers.

- 3) Scratching, overwriting, tick mark and multiple answers will be considered as wrong answers and no marks will be allotted to them.
- 4) Verification of marks obtained is permitted on applying for the same in writing within 7 days from the date of declaration of the result along with a D.D. for Rs.300/- drawn in the name of Controller, MAUEB, Pune.
- 5) The Carbon Copy of OMR sheet will be provided at the time of CET Examination.

## 7. Syllabus of Examination

The syllabus for the CET in each of the stream is given in ANNEXURE “B” to “K”. The syllabus of each stream forms the entire theory programme of the concerned stream. However, in case of the streams to which students of other eligible streams are allowed to appear, 80 per cent questions will be set on the basis of syllabus of the main stream and 20 per cent from the syllabi of other eligible streams. The weightages of other eligible streams have been given in the syllabus of the concerned stream.

## 8. Examination Centres

The examination centres for conduct of the CET are given in the Table below. The candidate may choose any one centre convenient to him / her. However, the right of allotment of the centre is reserved by the Board. Requests for change of examination centre will not be entertained.

Sr. No.	Name of the Centre	Streams	Center Code No.
1.	College of Agriculture, Pune	All Streams <b>except Fisheries &amp; Home Science</b>	01
2.	College of Agriculture, Akola	All Streams <b>except Fisheries &amp; Home Science</b>	02
3.	College of Agriculture, Nagpur	All Streams <b>except Home Science</b>	03
4.	College of Agriculture, Parbhani	All Streams	04
5.	College of Agriculture, Dapoli	All Streams <b>except Home Science</b>	05
6.	Dr. A.S. College of Agril. Engg., Rahuri	All Streams <b>except Forestry, Home Sc. &amp; Fisheries</b>	06
7.	College of Agriculture, Kolhapur	All Streams <b>except Forestry, Home Sc. , Fisheries</b>	07
8.	College of Agriculture, Dhule	All Streams <b>except Forestry, Home Sc. &amp; Fisheries</b>	08
9.	College of Agriculture, Latur	<b>Only for Agriculture, Agri. Business Management, Agril. Biotech. &amp; PHM</b>	09
10.	College of Agriculture, Badnapur	<b>Only for Agriculture &amp; PHM</b>	10

## 9. Conduct and Discipline

1. Failure of the candidate in making full and correct statements in the application form and / or suppression of any information would lead to disqualification of the candidate. Such candidate will be debarred from the examination / entire selection process.
2. The candidate has to scrupulously follow the instructions given by the supervisors / invigilators at all the stages of examination. Violation of such instructions may lead to cancellation of candidature.
3. Calculators, books, notebooks, written notes, pagers, mobile phones and any other electronic gadget is not allowed inside the examination hall. Candidate found possessing such material whether in use or otherwise will be deemed to have been using unfair means and would be liable to disciplinary action.
4. Adopting unfair means or engaging in malpractice in the examination shall render a candidate liable for punishment under “Maharashtra Prevention of Malpractices Act, Universities, Board and Other Specified Examination Act, 1982” and disqualify him / her.
5. Any issue not dealt with here-in above will be dealt with, when arising, fully and finally by the competent authority.

## 10. FILLING AND SUBMITTING THE APPLICATION FORM

Candidates are required to take help of the following instructions for filling the online application form. After submitting online application form, candidate should take SBI Bank Challan printout which is in two parts.

Please note that **if the candidate commit any mistake in filling the online Application Form, it can not be corrected by this office.** The Board will have no responsibility of any kind for such forms. In such cases, the candidate will not have any right to claim the refund of examination fees. **Keep a photocopy of the printout of online application form for future correspondence if any.**

- i) Satisfy yourself about the eligibility requirements for appearing in the examination.
- ii) Applicants should have a valid Email ID.
- iii) Before filling Online Application Form download Information Bulletin of PG-CET-2014 and read the same carefully.
- iv) The applicants must possess the required criteria and education qualification as mentioned in the Information Bulletin of PG- CET- 2014.
- v) **Fill the Online Application Form carefully and upload scanned photograph and signature (Size of Photograph and Signature should not be greater than 35KB, 30KB respectively). Please remember the password given by you. It is important for further Login.**
- vi) There is provision to make changes in the Online Application Form, before click on Submit Button. Candidate should verify the correctness of entries made in Online

Application Form. There is no provision to make changes in the Online Application Form once Submit Button clicked.

- vii) After submitting Online Application Form, candidate should take SBI Bank Challan printout which is in two parts.
- viii) Required fee is printed on SBI Bank Challan. With this Challan pay the fee in any branch of State Bank of India on Second working day onward, from the day of printing challan and obtain copy of Challan indicating Journal ID/Transition ID.
- ix) **Applicants need not send copy of online application form or any document to this office. However, he can download printout of Online Application form for subsequent use.**
- x) Please note that if you commit any mistake in filling the Online Application Form, it cannot be corrected by this office. The office will take no responsibility of any kind for such forms.
- xi) After reading above instructions to fill Online Application Form, the Applicants has to click **NEXT** button to display Online Application Form.



**Note: Mere appearing to CET is not claim for admission to any faculty without prescribed eligibility to the respective faculty. The admission will be given on verification of original documents as per the eligibility criteria of respective degree programme.**

The Online Application Form for CET-2014 for admission to PG programme is available on [www.mcaer.org](http://www.mcaer.org)

Candidate should click on [Apply Online link](#) to view Application Form.

**Maharashtra Agricultural Universities Examination Board, Pune.**  
Common Entrance Test 2014 for Admission to P.G. Programme 2014 - 15  
Application Form

<b>1. Name of the Candidate :</b> <small>(In Capital Letters)</small>	<input type="text" value="Surname"/>	<input type="text" value="Candidate First Name"/>	<input type="text" value="Father Name"/>
	<b>(Surname)</b>	<b>(First Name)</b>	<b>(Father's Name)</b>
<b>2. Date of Birth :</b> <small>(dd/mm/yyyy)</small>	<input type="text" value="DD/MM/YYYY"/>	<b>3. Gender :</b>	<input type="radio"/> Male <input type="radio"/> Female
<b>4. Nationality :</b>	<input type="text" value="[SELECT]"/>	<b>5. Category :</b>	<input type="text" value="[SELECT]"/>
<b>6. Address for Communication :</b>	<input type="text" value="Address line 1"/> <input type="text" value="Address line 2"/> <input type="text" value="Address line 3"/>		
<b>City :</b>	<input type="text" value="City"/>	<b>Pin Code :</b>	<input type="text" value="Pin"/>
<b>District :</b>	<input type="text" value="District"/>	<b>State :</b>	<input type="text" value="State"/>
<b>7. STD Code :</b>	<input type="text" value="STD Code"/>	<b>8. Tel. No. :</b>	<input type="text" value="Tel. No."/>
<b>9. Mobile Number :</b>	<input type="text" value="Mobile Number"/>	<b>10. E-Mail :</b>	<input type="text" value="E-mail"/>
<b>11. Degree code at graduation :</b>	<input type="text" value="[SELECT]"/>		
<b>12. Subject stream/s in which CET is to be given :</b>	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> H <input type="checkbox"/> I <input type="checkbox"/> J <small>(A-Agriculture,B-Horticulture,C-Forestry,D-Agril.Engineering.) (E-Food Tech.,F-Home Science,G-Fisheries,H-Agril.Biotechnology,) (I-Agril.Business Management,J-Post Harvest Management)</small>		
<b>13. Exam Center :</b>	<input type="text" value="[SELECT]"/>		
<b>14. UG College Code :</b>	<input type="text" value="UG College Code"/> <small>(Refer Information Bulletin for UG college code)</small>		
<b>15. Upload Photograph and Signature.</b>	<div style="border: 1px solid black; padding: 5px;"><p><b>Instruction For Photograph:</b> =&gt; Size of photograph must be less than 35kb. =&gt; Height of photograph must be 300 pixel. =&gt; Width of photograph must be 200 pixel.</p></div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"><p><b>Instruction For Signature:</b> =&gt; Size of Signature must be less than 30kb. =&gt; Height of Signature must be 150 pixel. =&gt; Width of Signature must be 200 pixel.</p></div>		
<b>16. Choose your password</b>	<b>Password :</b> <input type="text" value="Password"/> <b>Re-Enter Password :</b> <input type="text" value="Re-Password"/>		
<b>Declaration - I</b>	<p>1. I hereby declare that the above information is true and complete to the best of my knowledge. I am aware that if any information herein is found to be incorrect or incomplete, my application form will be rejected / admission will be cancelled.</p> <p>2. I have read and understood all the provisions contained in the brochure and hereby agree to abide by these provisions.</p>		
	<input type="button" value="Submit"/>		

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## INSTRUCTIONS TO FILL-UP THE ONLINE APPLICATION FORM

### 1. Name of the Candidate:

Candidates should Enter his/her name in capital letters.

In 1<sup>st</sup> text box type your Surname.

In 2<sup>nd</sup> text box type your First Name.

In 3<sup>rd</sup> text box type your Father's Name.


Incorrect names may invite rejection of candidature at any stage.

**For Example:** 1. Name of the Candidate :     
(In Capital Letters) (Surname) (First Name) (Father's Name)

### 2. Date of Birth:

Select your Month, Year and Date from Calendar which will appear after clicking on Date of Birth text box.

**For Example:** 2. Date of Birth :   
(dd/mm/yyyy)



### 3. Gender:

Select your Gender from Male or Female Buttons.

**For Example:** 3. Gender :  Male  Female

### 4. Nationality:

Select your Nationality from Nationality Combo box.

**For Example:** 4. Nationality :   
[SELECT]  
INDIAN  
NRI

**5. Category:**

Select your Category from Category Combo box.

**For Example:** 5. Category :

[SELECT] ▾  
[SELECT]  
01-Open  
02-SC  
03-ST  
04-OBC  
05-NT/DT  
06-SBC

**6. Address for Communication:**

Enter your Communication Address in Text Boxes provided.

**For Example:**

6. Address for Communication : GAYTRI DHAM,  
GANPATI MANDIR ROAD,  
TITAWALA  
City : TITAWALA Pin Code : 421301  
District : THANE State : MAHARASHTRA

**7. STD Code:**

Enter your STD Code number in Text Box provided.

**For Example:** 7. STD Code : 0251

**8. Tel. No. :**

Enter your Telephone number in Text Box provided.

**For Example:** 8. Tel. No. : 123456

**9. Mobile Number:**

Enter your Mobile number in Text Box provided.

**For Example:** 9. Mobile Number : 1234567890

**10. E-Mail:**


Enter your E-Mail Address in Text Box provided.

**For Example:** 10. E-Mail : xyz@gmail.com

### 11. Degree code at graduation:

Select your Degree code at graduation from Combo box.

#### For Example:

11. Degree code at graduation : [SELECT] 

- [SELECT]
- A - Agriculture (B.Sc.- Agriculture)
- B - Horticulture(B.Sc.- Horticulture)
- C - Forestry (B.Sc.- Forestry)
- D - Agril. Engineering (B.Tech.- Agril. Engineering)
- E - Food Science/Tech. (B.Tech.- Food Science/Tech.)
- F - Hons.Home Science (B.Sc.- Hons.Home Science)
- G - Fisheries (B.F.Sc.- Fisheries)
- H - Agril. Biotechnology (B.Sc.- Agril. Biotechnology)
- I - B.Sc. Agril. Business Management/Bachelor of Business Management(Agri)

### 12. Subject stream/s in which CET is to be given :

Select your Stream/s in which CET is to be given from Check boxes.

#### For Example:

12. Subject stream/s in which CET is to be given :


A  B  C  D  E  F  G  H  I  J

(A-Agriculture,B-Horticulture,C-Forestry,D-Agril.Engineering,)  
(E-Food Tech.,F-Home Science,G-Fisheries,H-Agril.Biotechnology,)  
(I-Agril.Business Management,J-Post Harvest Management)

### 13. Exam Center :

Select your choice of Examination Center from Combo box. Examination Centers are to be selected as per the available streams at these centers (Refer Sr. No. 8 of CET Bulletin)

#### For Example :

13. Exam Center : 01-College of Agriculture, Pune -- (All Streams except Fisheries and Home Sc.) 

[SELECT]

- 01-College of Agriculture, Pune -- (All Streams except Fisheries and Home Sc.)
- 02-College of Agriculture, Akola -- (All Streams except Fisheries and Home Sc.)
- 03-College of Agriculture, Nagpur -- (All Streams except Home Sc.)
- 04-College of Agriculture, Parbhani -- (All Streams)
- 05-College of Agriculture, Dapoli -- (All Streams except Home Sc.)
- 06-Dr. A. S. College of Agril. Engg. Rahuri -- (All Streams except Forestry, Home Sc. and Fisheries)
- 07-College of Agriculture, Kolhapur -- (All Streams except Forestry, Home Sc. and Fisheries)
- 08-College of Agriculture, Dhule -- (All Streams except Forestry, Home Sc. and Fisheries)
- 09-College of Agriculture, Latur -- (Only for Agriculture, Agril.Business Management,Agril.Biotech. and PHM stream)
- 10-College of Agriculture, Badnapur -- (Only for Agriculture and PHM stream)

### 14. UG College Code:

Enter your UG Degree College Code. (Annexure 'A')

#### For Example:

14. UG College Code :  (Refer Information Bulletin for UG college code)

### 15. Photograph and Signature:

Upload your recent Photograph and Signature.

For Example:

#### 15. Upload Photograph and Signature.

##### Instruction For Photograph:

=> Size of photograph must be less than 35kb.

=> Height of photograph must be 300 pixel.

=> Width of photograph must be 200 pixel.



##### Instruction For Signature:

=> Size of Signature must be less than 30kb.

=> Height of Signature must be 150 pixel.

=> Width of Signature must be 200 pixel.



After filling the Online application and click on submit button, you should take SBI Bank Challan printout which is in two parts. Required fee is printed on your SBI Bank Challan. With this Challan pay the fee in any branch of State Bank of India on Second working day onward, from the day of printing challan and obtain your copy of Challan indicating Journal ID/Transition ID.

**The candidate need not required to send hard copy of Online Application Form, Challan and supporting documents to the MAUEB, Pune office.**

## ANNEXURE “A”

### Code Numbers of Colleges in Four SAUs (M.S.)

Sr. No.	Degree Course	Name of College	Code No.
1.	B.Sc. (Agri.)	1. College of Agriculture, Shivajinagar, Pune- 411 005.	101
		2. College of Agriculture, Kolhapur	102
		3. College of Agriculture, Dhule	103
		4. College of Agriculture, Akluj Tal.Malshiras Dist.Solapur-413 101.	104
		5. College of Agriculture, Baramati At.Post. Shardanagar, Tal. Baramati, Dist.Pune-411 015.	105
		6. College of Agriculture, Hingangaon Kd. Tal. Kadegaon Dist.Sangli-415 305.	106
		7. College of Agriculture, Udoji Maratha Boarding Campus, Gangapur Road, Nasik-422 013.	107
		8. Krishna College of Agriculture, Rethare, Post-Shivnagar-415 108, Tal..Karad Dist.Satara	108
		9. College of Agriculture, Sonai, Tal. Newasa Dist. Ahmednagar-414 105.	109
		10. K.K.Wagh College of Agriculture, Hirabai Haridas Vidyanagari, Amrutdham, Panchawati, Nasik-422 003.	110
		11. College of Agriculture, Rajmachi, Tal. Karad Dist. Satara-415 105.	111
		12. College of Agriculture, Infront of Godavari Hospital Building, M.J. College Road, Jalgaon.	112
		13. College of Agriculture, Ambi Tal. Maval Dist. Pune	113
		14. College of Agriculture, Pujya Saneguruji Vidya Prasarak Mandal, Shahada Dist. Nandurbar-425409.	114
		15. Lokmangal College of Agriculture, At. Post. Wadala, Tal. Uttar Solapur Dist. Solapur-416 222.	115
		16. College of Agriculture, Talsande, Tal. Hatkangale Dist .Kolhapur	116
		17. College of Agriculture, Bahubali,Tal. Hatkangale Dist .Kolhapur	117
		18. College of Agriculture, Phaltan, Dist. Satara	118
		19. College of Agriculture, Amalner, Dist. Jalgaon	119
		20. Shramshakti College of Agriculture, Maldad, Dist. Ahmednagar	120
		21. Sadguru College of Agriculture, Mirajgaon, Dist- Ahmednagar	121
		22. College of Agriculture, Dondaicha	122
		23. College of Agriculture, Loni	123
		24. College of Agriculture, Babhulgaon	124
		25. College of Agriculture, Ghargaon	125

Sr. No.	Degree Course	Name of College	Code No.
		26. Sharada College of Agriculture, Jainapur, Tal. Shirolu Dist. Kolhapur – 416 101	126
		27. College of Agriculture, Paniv, Tal. Malshiras Dist. Solapur – 413 113.	127
		28. College of Agriculture, Nandurbar – 425 412.	128
		29. College of Agriculture , Karad . Dist.- Satara	129
		30. College of Agriculture, Akola	201
		31. College of Agriculture, Nagpur	202
		32. Shri Shivaji College of Agriculture, Amravati	203
		33. Anand Niketan College of Agriculture, Warora Dist.Chandrapur	204
		34. College of Agriculture, Darwaha, Dist. Yavatmal	205
		35. Vivekanand College of Agriculture, Vivekanand Nagar (Hiwra Ashram) Tal.Mehkar Dist.Buldhana	206
		36. Swatanrya Vir Ganpatrao Ingle College of Agriculture, Jalgaon Jamod, Dist.Buldhana	207
		37. Ramkrishna Bajaj College of Agriculture, Pipri Wardha, Dist.Wardha	208
		38. Marotrao Wadafale College of Agriculture, Gurunanak Nagar, Godhani Road, Yavtmal.	209
		39. Dr. Rajendra Gode College of Agriculture, Buldhana.	210
		40. Shri. Sant Shankar Maharaj College of Agriculture, Pimpalkhuta, Dist-Amaravati	211
		41. Late R.G.Deshmukh College of Agriculture, Tiwsa, Dist-Amravati	212
		42. Shri. Samarth College of Agriculture, Deoulgaon Raja, Dist- Buldhana.	213
		43. College of Agriculture, Sonapur, Gadchiroli	214
		44. Manoharbai Patel College of Agriculture, Hiratola, Dist. Gondia	215
		45. College of Agriculture, Umarched, Dist. Yavatmal	216
		46. Smt. Sumitrabai Andhare College of Agriculture, Shirla (Andhare), Tal.-Patur, Dist.-Akola.	217
		47. Sau. Vasudhatai Deshmukh College of Agriculture, Talegaon-Dashashar, Dist.-Amaravati	218
		48. Shri. S.V.College of Agriculture, Kesalwada, Dist.- Bhandara	219
		49. S. F. College of Agriculture, Risod, Dist.-Washim	220
		50. College of Agriculture, Krishi Nagar, Parbhani-431 402.	301
		51. College of Agriculture, Latur	302
		52. College of Agriculture, Badnapur, Dist. Jalna	303
		53. College of Agriculture, Ambejogai, Dist. Beed	304
		54. College of Agriculture, Barshi Naka, Osmanabad	305

<b>Sr. No.</b>	<b>Degree Course</b>	<b>Name of College</b>	<b>Code No.</b>
		55. Aditya College of Agriculture, Telgaon Road, Beed-431 122.	306
		56. Late Dadasaheb Patil College of Agriculture, Dahegaon, Tal. Vaijapur Dist. Aurangabad	307
		57. College of Agriculture, Naigaon Bazar Tal. Naigaon (kh.) Dist.Nanded	308
		58. Late Rajiv Gandhi College of Agriculture, Jintur Road,Parbhani-431 401.	309
		59. Shri Chhatrapati Shahu, Phule, Ambedkar College of Agriculture, Ashti, Dist. Beed	310
		60. College of Agriculture, Kanchanwadi, Paithan Road, Tal. & Dist. Aurangabad	311
		61. S.D.M.V.M's College of Agriculture, Georai Tanda, Aurangabad – 431 003.	312
		62. College of Agriculture, Udgir, Dist. Latur - 413 517	313
		63. College of Agriculture, Kharpudi,Dist-Jalana – 431 203	314
		64. College of Agriculture, Tondapur, Dist- Hingoli-431 701	315
		65. Vasantrao Naik Gramin College of Agriculture, Kandhar, Dist- Nanded – 431 742.	316
		66. College of Agriculture, Markhel	317
		67. College of Agriculture, Selu	318
		68. College of Agriculture, Pathri	319
		69. College of Agriculture, Khandala	320
		70. College of Agriculture, Golegaon	321
		71. College of Agriculture, Varpud	322
		72. College of Agriculture, Gandheali	323
		73. College of Agriculture, Dapoli, Dist. Ratnagiri	401
		74. College of Agriculture, Saralgaon Tal.Murbad Dist.Thane	402
		75. Chhatrapati Shivaji College of Agriculture, Kirlos, Oros, Jaitapkar Colony, Tal. Kudal Dist. Sindhudurg.	403
		76. Govindraoji Nikam College of Agriculture Mandki Palwan, Tal.Chiplun Dist.Ratnagiri	404
		77. Sharadchandrajee Pawar College of Agriculture, Kharawate Dahivali, Tal.Chipalun Dist.Ratnagiri	405
		78. College of Agriculture, Sangulwadi, Dist-Sindhudurga	406
		79. Kai. Rajaram Marathe College of Agriculture, Phondaghat, Dist-Sindhudura-416 601	407
		80. College of Agriculture, Achaloli. Tal. Mahad, Dist. Raigad – 402 301.	408
<b>2.</b>	<b>B.Sc. (Hort.)</b>	1. College of Horticulture, Shivajinagar, Pune-411 005.	130
		2. Shrimant Shivajiraje College of Horticulture, Phaltan Dist. Satara-415523	131

<b>Sr. No.</b>	<b>Degree Course</b>	<b>Name of College</b>	<b>Code No.</b>
		3. College of Horticulture, Kadegaon, A/P.Ambak, Tal. Kadegaon Dist. Sangli.	132
		4. College of Horticulture, Puja Saneguruji Vidya Prasarak Mandal, Shahada Dist. Nandurbar-425409.	133
		5. Lokmangal College of Horticulture, At. Post. Wadala, Tal. Uttar Solapur Dist. Solapur-416 222.	134
		6. College of Horticulture, Talsande, Tal. Hatkangale Dist .Kolhapur	135
		7. College of Horticulture, Panchavati, Nashik – 422 003.	136
		8. H.H. Shri. Murlidhar Swamijee College of Horticulture, Malegaon, Dist. – Nashik – 423 105.	137
		9. College of Horticulture, Akola	221
		10. Shri Shivaji College of Horticulture, Amravati	222
		11. College of Horticulture, Jalgaon-Jamod, Dist.- Buldhana	223
		12. College of Horticulture, Parbhani-431 402.	324
		13. Shri DMV Mandal's College of Horticulture, Georai Tanda, Paithan Road, Aurangabad	325
		14. College of Horticulture, Shrikshetra Verul, Tal. Khultabad Dist. Aurangabad	326
		15. College of Horticulture, Kanchanwadi, Paithan Road, Tal. & Dist. Aurangabad	327
		16. College of Horticulture, Dapoli, Dist. Ratnagiri	409
		17. Sharadchandrajee Pawar College of Horticulture, Kharavate Dahivali, Tal. Chipalun Dist. Ratnagiri.	410
		18. College of Horticulture, Mulde	411
<b>3.</b>	<b>B.Sc.(Forestry)</b>	1. College of Forestry, Akola	224
		2. College of Forestry, Dapoli, Dist. Ratnagiri	412
<b>4.</b>	<b>B.F.Sc.</b>	1. College of Fisheries, Shirgaon, Ratnagiri	413
<b>5.</b>	<b>B.Tech. (Food Sc./ Tech.)</b>	1. College of Food Technology, Rajmachi Tal. Karad Dist. Satara	138
		2. MAEER's MIT College of Food Technology, Loni Kalbhor, Pune.	139
		3. K.K.Wagh College of Food Technology, Panchvati, Dist:Nasik	140
		4. Shramshakti College of Food Technology, Maldad, Dist:Ahmednagar	141
		5. Sau Vasudhatai Deshmukh College of Food Technology, Lahari Complex, Kathora Naka, Valgaon Road, Amravati.	225
		6. College of Food Technology, Parbhani	328
		7. Rajiv Gandhi College of Food Technology, Jintur Road, Parbhani-431 401.	329
		8. Aditya College of Food Technology, Telgaon Road, Beed	330



<b>Sr. No.</b>	<b>Degree Course</b>	<b>Name of College</b>	<b>Code No.</b>
		9. Sau. Kesharbai Sonajirao Kshirsagar alias Kaku College of Food Technology, Navgan College Campus, Beed-431 122.	331
		10. Queens College of Food Technology, Survey No. 43, MIDC area, Behind Railway Station, Beside Tarun Bharat Press, Aurangabad.	332
		11. MGM College of Food Technology, Aurangabad-431 003	333
		12. College of Food Technology, Naigaon, Dist- Nanded-431 709.	334
		13. College of Food Technology, Udgir	335
		14. College of Food Technology, Aundha	336
		15. Sharadchandrajee Pawar College of Food Technology, Kharawate Dahiwali, Tal.Chipalun Dist.Ratnagiri.	414
		16. College of Food Technology, Saralgaon Tal- Murbad Dist. Thane	415
		17. College of Food Technology, Achaloli, Tal. Mahad, Dist. Raigad -402 301.	416
		18. College of Food Technology, Sangulwadi. Tal. Vaibhavwadi Dist. Sindhudurg – 416 810.	417
<b>6</b>	<b>B.Sc. (Agril. Bio.Tech)</b>	1. College of Agril. Bio-Technology, Chandrapur Road, I.T.I., Farmacy Campus, At.Post. Loni Bd., Tal. Rahata, Dist. Ahmednagar-413 736.	142
		2. K.K. Wagh College of Agril. Bio-Technology, Hirabai Haridas Vidyanagari, Amrutdham, Panchawati, Nasik-422 003.	143
		3. Lokmangal College of Agril.Bio-Technology, Wadala, Dist-Solapur	144
		4. Modern College of Agril.Bio-Technology, Kule-Dakhane, Paud, Dist-Pune.	145
		5. College of Agril.Bio-Technology, Madadgaon, Dist-Ahmednagar.	146
		6. College of Agril. Biotechnology, Baramati, Dist. Pune	147
		7. Shri Shivaji College of Agril. Bio-Technology, Amravati	226
		8. Vasantrao Naik College of Agriculture Biotechnology, Yawatmal.	227
		9. College of Agril. Bio-Technology, Nanded Road, Latur	337
		10. MGM's College of Agril. Bio-Technology, N-6, CIDCO, Aurangabad.	338
		11. D.M.V.Mandal's College of Agril. Bio-Technology, Paithan Road, Aurangabad.	339

<b>Sr. No.</b>	<b>Degree Course</b>	<b>Name of College</b>	<b>Code No.</b>
		12. Mahatma Gandhi College of Agril. Bio-Technology, Pokharni, Post. Limbgaon (Railway), Nanded Poorna Road, Dist. Nanded-431 735.	340
		13. College of Agril. Bio-Technology, Hatta, Tal-Basmat Dist-Hingoli	341
		14. Aditya College of Agril.Bio-Technology, Beed-431 122	342
		15. College of Agril. Bio-Technology, Kharawate	418
		16. College of Agriculture Biotechnology, Achaloli, Tal. Mahad, Dist. Raigad – 402 301.	419
		17. College of Agriculture Biotechnology, Sangulwadi. Tal. Vaibhavwadi Dist. Sindhudurg – 416 810.	420
		18. College of Agriculture Biotechnology, Saralgaon Tal.Murbad Dist.Thane	421
<b>7</b>	<b>B.Tech. (Agri. Engg.)</b>	1. Dr. Annasaheb Shinde College of Agril Engineering, Rahuri, Dist. Ahmednagar-413 722.	148
		2. Dr.Ulhas Patil College of Agril. Engineering , Dr. Ulhas Patil Nagar, Additional M.I.D.C., NH-6, Bhusawal Road, Jalgaon-425 003.	149
		3. Padmashri Dr. D.Y. Patil College of Agril. Engineering & Technology, At.Post- Talsande, Tal. Hatkanangale, Kolhapur	150
		4. Karmveer Kakasaheb Wagh College of Agril. Engineering,, Hirabai Haridas Vidyanagari, Amrutdham, Panchvati, Nasik-422 003.	151
		5. Sahyadri College of Agriculture Engg. Yashwantnagar, Tal. Karad Dist. Satara.	152
		6. College of Agril. Engineering and Technology, Akola	228
		7. College of Agril. Engineering, Jalgaon Jamod, Dist. Buldhana.	229
		8. College of Agril. Engineering, Parbhani-431 402.	343
		9. Aditya College of Agril. Engineering, Telgaon Road, Beed	344
		10. College of Agril. Engineering & Technology Dapoli, Dist. Ratnagiri	422
		11. Dr. Budhajirao Mulik College of Agril. Engineering & Technology, Mandki Palwan Tal.Chipalun Dist.Ratnagiri	423
<b>8</b>	<b>B.Sc. (Hons.) (Home Science)</b>	1. College of Home Science , Parbhani-431 402.	345
<b>9</b>	<b>B.B.M. (Agri.) / B.Sc. (ABM)</b>	1. Padmashree Dr. D.Y. Patil College of Agriculture Business Management, Akuradi, Pune-411 044.	153

Sr. No.	Degree Course	Name of College	Code No.
		2. College of Agriculture Business Management, Narayangaon, Tal. Junnar Dist. Pune-410 504.	154
		3. Rajarshi Chhatrapati Shahu Maharaj College of Agriculture Business Management, Sangli-416 415	155
		4. K.K.Wagh College of Agriculture Business Management, Nashik	156
		5. College of Agriculture Business Management, Gunjalwadi	157
		6. College of Agriculture Business Management, Loni, Tal.- Rahata, Dist.- Ahmednagar	158
		7. Vivekanand College of Agriculture Business Management, Vivekanand Nagar (Hiwra Ashram) Tal.Mehkar Dist.Buldhana	230
		8. College of Agriculture Business Management, Shrinagar, Barshi Road, Latur-413 512.	346
		9. S.S. Patil College of Agriculture Business Management, At-Vaveghar, Post. Rasayani Tal. Panvel Dist. Raigad	424
		10. College of Agriculture Business Management, Kirlos Tal. Kudal Dist. Sindhudurg	425

**Note.** Students who wish to appear for CET-2014 but are not graduated from the **FOUR SAUs in Maharashtra** should mention **501** as their college code (Outside State or otherwise).

Sr. No.	Degree Course	Name of College	Code No.
1	Agriculture or allied subjects	Other than <b>FOUR SAUs</b> in Maharashtra	501

## CET-2014 Syllabus

### Annexure: "B"

#### Section "A": Syllabus for CET in Agriculture Stream for 80 %

Subject	Course No.	Title	Credits
<b>Agronomy</b>	AGRO-111	Principles of Agronomy	1+1=2
	AGRO-112	Agricultural Meteorology	1+1=2
	AGRO-113	Introductory Agriculture (Ancient heritage, agricultural scenario and gender equity in Agriculture)	1+0=1
	AGRO-124	Water Management including Micro irrigation	2+1=3
	AGRO-235	Field Crops – (I) ( <i>Kharif Crops</i> )	2+1=3
	AGRO-236	Practical Crop Production (I) ( <i>Kharif Crops</i> )	0+1=1
	AGRO-247	Field Crops-(II) (Rabi Crops)	2+1=3
	AGRO-248	Practical Crop Production (II) (Rabi Crops)	0+1=1
	AGRO-359	Weed Management	1+1=2
	AGRO-3610	Farming Systems and Sustainable Agriculture	1+1=2
	AGRO-3611	Organic and Rainfed farming	1+1=2
<b>Total</b>			<b>13+11=24</b>
<b>Botany</b>	BOT-111	Environmental Science	1+1=2
	BOT-122	Principles of genetics	2+1=3
	BOT-233	Principles of Plant Breeding	2+1=3
	BOT-234	Crop Physiology	2+1=3
	BOT-245	Breeding of field and Horticultural crops	2+1=3
	BOT-356	Principles of Plant Biotechnology	2+1=3
	BOT-367	Principles of Seed Technology	2+1=3
<b>Total</b>			<b>13+7=20</b>
<b>Soil Science</b>	SSAC-111	Introduction to Soil Science	2+1=3
	SSAC-122	Soil Chemistry, Soil Fertility and Nutrient Management	2+1=3
	SSAC-243	Manures, Fertilizers and Agrochemicals	2+1=3
	SSAC-354	Biochemistry	2+1=3
<b>Total</b>			<b>8+4=12</b>
<b>Plant Pathology</b>	PATH-111	Introductory Plant Pathology	1+1=2
	MIBO-121	Agricultural Microbiology	2+1=3
	PATH-232	Principles of Plant Pathology	1+1=2
	PATH-243	Diseases of Field Crops and their Management	2+1=3
	PATH-354	Diseases of Horticultural Crops and their Management	2+1=3
<b>Total</b>			<b>8+5=13</b>

<b>Horticulture</b>	HORT-111	Production Technology of Fruit Crops	2+1=3
	HORT-232	Production Technology of Vegetables and Flowers	1+1=2
	HORT-243	Production Technology of Spices, Aromatics, Medicinal and Plantation Crops	1+1=2
	HORT-364	Post Harvest Management and Value addition of Fruits and Vegetable	1+1=2
<b>Total</b>			<b>5+4=9</b>
<b>Agricultural Extension</b>	EXTN-111	Fundamentals of Rural Sociology and Educational Psychology	2+0=2
	EXTN-122	Dimensions of Agricultural Extension	1+1=2
	EXTN-353	Extension Methodologies for Transfer of Agricultural Technology	1+1=2
	EXTN-364	Entrepreneurship Development and Communication Skills	1+1=2
<b>Total</b>			<b>5+3=8</b>
<b>Agricultural Economics</b>	ECON-121	Principles of Agricultural Economics	2+0=2
	ECON-232	Production Economics and Farm Management	1+1=2
	ECON-243	Agricultural Finance & Co-operation	1+1=2
	ECON-354	Agricultural Marketing, Trade and Prices	1+1=2
	ECON-365	Agri-Business Management	1+1=2
	STAT-121	Statistics	1+1=2
<b>Total</b>			<b>7+5=12</b>
<b>Animal Science &amp; Dairy Science</b>	AHDS-111	Livestock Production and Management	1+1=2
	AHDS-242	Livestock Breeding and Nutrition	1+1=2
	AHDS-353	Technology of milk and milk Products	1+1=2
	AHDS-364	Sheep & Goat production	1+1=2
<b>Total</b>			<b>4+4=8</b>
<b>Agricultural Entomology</b>	ENT-231	Insect Morphology and Systematic	2+1=3
	ENT-242	Insect Ecology, Integrated Pest Management and Beneficial Insects	2+1=3
	ENT-353	Crop Pests and Stored Grain Pests and their Management	2+1=3
	ENT-364	Introductory Nematology	1+1=2
<b>Total</b>			<b>7+4=11</b>
<b>Agricultural Engineering</b>	ENGG-121	Fundamentals of Soil and Water Conservation Engineering	1+1=2
	ENGG-232	Introduction to Computer and Applications	1+1=2
	ENGG-353	Farm Power and Machinery	1+1=2
	ENGG-364	Protected Cultivation and Post harvest Technology	1+1=2
<b>Total</b>			<b>4+4=8</b>
<b>Grand Total</b>			<b>74+51=125</b>

**Syllabus for CET Agriculture for 20 %**

**Section “B” : Syllabus of following courses of B.Sc. Hort for 3% weightage**

**Division of Fruit Science**

Sr. No.	Course No.	Course title	Credits
1	H/FS-231	Tropical and Subtropical Fruits	2+1
2	H/FS-242	Breeding of Fruit and Plantation Crops	2+1
3	H/FS-243	Arid Fruit Crops	1+1
4	H/FS-354	Temperate and Plantation Fruit Crops	2+1
5	H/HORT-111	Fundamentals of Horticulture	2+1
6	H/HORT-122	Plant Propagation and Nursery Management	2+1
		<b>Total</b>	<b>11+6=17</b>

**Division of Vegetable Science**

Sr. No.	Course No.	Course title	Credits
1	H/VS-231	Tropical and Subtropical Vegetable Crops	2+1
2	H/VS-242	Temperate Vegetable Crops	1+1
3	H/VS-353	Breeding of Vegetable Crops	2+1
4	H/VS-364	Seed Production of Vegetable Crops	2+1
5	H/VS-365	Protected Cultivation of Vegetable Crops	1+1
6	H/SPICON-231	Spices and Condiments	1+1
		<b>Total</b>	<b>9+6=15</b>

**Division of Floriculture and Landscaping**

Sr. No.	Course No.	Course title	Credits
1	H/FL-111	Ornamental Horticulture	1+1
2	H/FL-232	Landscape Gardening	1+1
3	H/FL-243	Commercial Floriculture	2+1
4	H/FL-354	Protected Cultivation of Flower Crops	1+1
5	H/FL-365	Breeding and Seed Production of Ornamental Plants	1+1
		<b>Total</b>	<b>6+5=11</b>

**Division of Post Harvest Technology**

Sr. No.	Course No.	Course title	Credits
1	H/PHT-231	Post Harvest Management of Horticultural Crops	2+1
2	H/PHT-362	Processing and Value Addition of Horticultural Crops	1+2
		<b>Total</b>	<b>3+3=6</b>

**Division of Plant Protection**

Sr. No.	Course No.	Course title	Credits
1	H/PATH-121	Fundamentals of Plant Pathology	1+1
2	H/PATH-232	Diseases of Vegetable, Ornamental and Spice Crops	2+1
3	H/PATH-242	Diseases of Fruits, Plantation, Aromatic and Medicinal Crops	2+1
4	H/PATH-354	Mushroom Culture	0+1
5	H/MIBO-111	Introductory Microbiology	1+1
6	H/MIBO-362	Applied Microbiology	0+1
7	H/ENTO-121	Fundamentals of Entomology	1+1
8	H/ENTO-352	Insect Pest Management of Fruit, Plantation, Medicinal and Aromatic Plants	2+1
9	H/ENTO-353	Insect Pest Management of Vegetable, Ornamental and Spice Crops	2+1
10	H/ENTO-364	Nematode Pests of Horticultural Crops and their Management	1+1
11	H/ENTO-365	Apiculture	0+1
		<b>Total</b>	<b>12+11=23</b>

**Division of Natural Resource Management**

Sr. No.	Course No.	Course title	Credits
1	H/SSAC-111	Fundamentals of Soil Science	1+1
2	H/SSAC-244	Soil, Irrigation Water and Plant Analysis	0+1
3	H/SSAC-232	Fundamentals of Bio-chemistry	1+1
4	H/SSAC-122	Soil Fertility and Nutrient Management	2+1
5	H/BOT-354	Environmental Science and Agro-ecology	1+1
6	H/AGRO-121	Water Management of Horticultural Crops	1+1
7	H/AGRO-232	Weed Management in Horticultural Crops	1+1
8	H/AGRO-243	Organic Farming	1+1
9	H/AGROMET-111	Agriculture Meteorology	1+1
10	H/ENGG-351	Farm Power and Machinery	1+1
<b>Total</b>			<b>10+10=20</b>

**Division of Basic Science & Humanities**

Sr. No.	Course No.	Course title	Credits
1	H/HORT-123	Growth and Development of Horticultural Crops	1+1
2	H/HORT-354	Introductory Agroforestry and Horti-silvipasture	1+1
3	H/BIOT-361	Fundamentals of Bio-technology	1+1
4	H/BOT-111	Principles of Genetics and Cytogenetics	2+1
5	H/BOT-122	Principles of Plant Breeding	1+1
6	H/BOT-123	Introductory Plant Physiology	1+1
7	H/AROMED-241	Aromatic and Medicinal Crops	1+1
8	H/EXTN-111	Fundamentals of Extension Education	1+1
9	H/EXTN-122	Agri. Communication and Journalism	0+1
10	H/EXTN-363	Entrepreneurship Development and Communication Skills	1+1
11	H/ECON-232	Horti-Business Management	2+0
12	H/ECON-111	Introductory Economics	2+0
13	H/STAT-121	Elementary Statistics	1+1
14	H/COMP-111	Computer Application	1+1
<b>Total</b>			<b>16+12=28</b>

**Section "C" : Syllabus of following courses of B.Sc. Forestry for 3 % weightage**

Sr. No.	Name of department/ Discipline	No. of Credits
<b>1.</b>	<b>Agricultural Sciences</b>	<b>34</b>
	<b>Agricultural Botany</b>	<b>7</b>
	F/BOT – 111 Principles of Cytology and Genetics	2(1+1)
	• F/BOT – 112 Principles of Plant Physiology	2(1+1)
	• F/ BOT – 113 Introductory Botany	3(2+1)
	<b>Agricultural Economics</b>	<b>2</b>
	F/ ECON – 111 Introductory Forest Economics	2(2+0)
	<b>Soil Science</b>	<b>4</b>
	F/SSAC – 111 Fundamentals of Geology and Soil Science	2(1+1)
	F/SSAC– 232	

	Fundamentals of Biochemistry	2(1+1)
	<b>Horticulture</b>	<b>3</b>
	F/HORT – 111 Fundamentals of Horticulture	3(2+1)
	<b>Extension Education</b>	<b>5</b>
	F/ EXTN – 241 Fundamentals of Extension Education	2(1+1)
	F/ EXTN – 362 Entrepreneurship Development and Communication Skills	3(2+1)
	<b>Agricultural Engineering</b>	<b>5</b>
	F/ENGG 121 Principles of Hydrology, Soil and Water Conservation	3 (2+1)
	F/ENGG – 351 Introduction to Computer Application	2(1+1)
	<b>Biotechnology</b>	<b>2</b>
	F/ BIOT-361 Fundamentals of Biotechnology	2 (1+1)
	<b>Animal Science and Dairy Science</b>	<b>2</b>
	F/ASDS – 241 Livestock Management	2(1+1)
	<b>Agricultural Statistics</b>	<b>2</b>
	F/ STAT – 351 Elementary Statistics	2(1+1)
	<b>Agricultural Meteorology</b>	<b>2</b>
	F/AGROMET – 111 Agricultural Meteorology	2(1+1)
<b>2.</b>	<b>Forest Biology and Tree Improvement</b>	<b>22</b>
	FBT – 121 Dendrology	3 (2+1)
	FBT – 122 Forest Ecology, Biodiversity and Conservation	3(2+1)
	FBT – 123 Tree Physiology	2(1+1)
	FBT – 234 Principles of Tree Improvement	3 (2+1)
	FBT – 235 Tree Seed Technology	2 (1+1)
	FBT – 246 Fundamentals of Wildlife	2 (2+0)
	FBT – 247 Forest Pathology	3 (2+1)
	FBT – 358 Wild Life Management	2 (1+1)
	FBT – 369 Forest Entomology and Nematology	3(2+1)
<b>3.</b>	<b>Silviculture and Agroforestry</b>	<b>24</b>
	SAF – 121 Principle and Practices of Silviculture	4(3+1)
	SAF – 232	



	Forest Mensuration SAF – 233	3(2+1)
	Nursery Management SAF – 244	2(1+1)
	Silviculture of Indian Trees SAF – 245	3 (2+1)
	World Forestry Systems SAF – 356	2(2+0)
	Silvicultural Systems SAF – 357	2(2+0)
	Plantation Forestry and Wasteland Development SAF – 358	2(1+1)
	Environmental Science SAF – 369	3 (2+1)
	Agro forestry System and Management	3 (2+1)
<b>4.</b>	<b>Forest Product Utilization</b>	<b>17</b>
	FPU – 121 Ethnobotany	3 (2+1)
	FPU – 232 Wood Anatomy	2 (1+1)
	FPU – 233 Logging and Ergonomics	2 (1+1)
	FPU – 244 Wood Science and Technology	3 (2+1)
	FPU – 245 Wood Products and Utilization	2 (1+1)
	FPU – 356 Medicinal and Aromatic Plants	3 (2+1)
	FPU – 367 Utilization of Non-Timber Forest Products	3 (2+1)
<b>5.</b>	<b>Natural Resource Management</b>	<b>23</b>
	NRM – 121 Chemistry and Fertility of Forest Soils	3 (2+1)
	NRM – 232 Forest Engineering and Survey	2 (1+1)
	NRM – 233 Soil Survey and Remote sensing	3 (2+1)
	NRM – 244 Forest Tribology and Anthropology	2 (2+0)
	NRM – 355 Rangeland Management	3 (2+1)
	NRM – 356 Principles of Forest Economics, Project Planning and Evaluation	2 (1+1)
	NRM – 367 Forest Management, Policy and Legislation	3 (2+1)
	NRM – 368 Forest Business Management	2 (1+1)
	NRM -369 Marketing and Trade of Forest Produce	3 (2+1)
	<b>Total</b>	<b>120</b>

**Section “D” : Syllabus of following courses of B.Sc. (Agri Bio-Tech) for 3 % weightage**

**A. Department of Plant Biotechnology**

<b>Sr. No.</b>	<b>Title</b>	<b>Credits</b>
PB-123	Introduction to Plant Biotechnology	2+1=3
PB-235	Molecular Markers in Plant Breeding	1+1=2
PB-246	Plants Cell and Tissue Culture	2+1=3
PB-357	Biotechnology of Biotic and Abiotic Stress Resistance	2+1=3
PB-358	Biodiversity Conservation	2+1=3
PB-369	Introduction to Bioinformatics	1+2=3
PB-3610	Biosafety Issues	2+0=2
PB 4712	Techniques in Genetic Transformation	1+3=4
PB 4713	PCR Techniques and its Application	1+3=4
PB 4714	Legal issues in GMO' s and LMO' s	1+3=4
PB 4715	Plant Genomics	1+3=4
<b>Total</b>		<b>16+19=35</b>

**B. Dept. of Biochemistry and Molecular Biology**

<b>Sr. No.</b>	<b>Title</b>	<b>Credits</b>
Bio-111	Basic Biochemistry	2+1=3
Bio-122	Enzymology	2+1=3
Bio-123	Microbial Genetics	2+1=3
Bio-234	Molecular Biology	2+1=3
Bio-235	Plant Metabolic Pathways	2+1=3
Bio-236	Elements of Immunology	1+1=2
Bio-247	Techniques in Biochemistry and Molecular Biology	2+2=4
Bio-358	Recombinant DNA Technology	2+1=3
BIO 4710	Advances in Recombinant Technology	1+3=4
BIO 4711	Secondary Metabolites of Commercial Importance	1+3=4
BIO 4712	Immunological techniques and its Application	1+3=4
BIO 4713	Proteins and Proteomics	1+3=4
BIO 4714	Enzyme Technology	1+3=4
<b>Total</b>		<b>20+24=44</b>

**C. Department of Post –harvest and Food Biotechnology**

<b>Sr. No.</b>	<b>Title</b>	<b>Credits</b>
FB-121	Human Nutrition	1+1=2
FB-232	Industrial Microbiology and Fermentation Technology	2+2=4
FB-243	Enzyme Biotechnology in Food Processing	2+1=3
FB-244	Post-harvest Biotechnology of Food Grains	2+1=3
FB-355	Technological Applications in Food Processing	1+1=2
FB-356	Post-harvest Biotechnology of Horticultural Crops	2+1=3
FB-367	Food and Nutrition Security of GM Food crops	1+1=2
FB 478	Cereal Biotechnology	2+2=4
FB 479	Fruit and Vegetable Biotechnology	2+2=4
FB 4710	Brewing Technology	1+3=4
FB 4711	Wine Technology	1+3=4
FB 4712	Patenting Inventions in Food Biotechnology	2+2=4
<b>Total</b>		<b>19+20=39</b>

#### D. Department of Animal Biotechnology

Sr. No.	Title	Credits
AB-231	Basics in Animal Biotechnology	2+1=3
AB-242	Animal Cell Culture	2+1=3
AB-243	Biotechnology of Ruminant Feed Utilization	2+1=3
AB-354	Dairy Process Biotechnology	2+1=3
AB-355	Livestock Genome	2+1=3
AB-366	Animal Genetic Engineering	2+1=3
AB 477	Techniques in Animal Cell Culture	1+3=4
AB 478	Transgenic for improvements in animals	1+3=4
AB 479	Artificial Insemination techniques	1+3=4
AB 4710	Advances in Dairy Microbiology	1+3=4
AB 4711	Probiotics in milk and milk products	1+3=4
<b>Total</b>		<b>17+21=38</b>

#### E. Department of Crop Science

Sr. No.	Title	Credits
CS 237	Greenhouse Technology and Protected cultivation	1+1=2
CS 248	BioStatistics	1+1=2
CS 249	Intellectual Property Rights	1+0=1
CS 3510	Computer Application in Biotechnology	1+2=3
CS 3611	Management of Major Insect Pests and Diseases of Field and Horticultural Crops	1+1=2
CS 3612	Marketing and Export of Biotechnological Products	1+1=2
<b>Total</b>		<b>06+06=12</b>
<b>Total Credit</b>		<b>78+90=168</b>

#### Section "E" : Syllabus of following courses of B.B.M. (Agri.)for 3 % weightage

##### 1. Departments of Agricultural and Allied Sciences

Sr. No.	Course No.	Course Title	Credits
1	AGRO-111	Agro-Techniques of Principal Crops and Agro-Meteorology	3=2+1
2	AGRO-122	Farming Systems and Sustainable Agriculture	2=2+0
3	AGRO-233	Irrigation Water Management	2=1+1
4	HORT- 111	Production Management of Important Fruit Crops	2=1+1
5	HORT-232	Production Management of Important Vegetable and Floricultural Crops	2=1+1
6	HORT-243	Post Harvest Technology of Horticultural crops	3=2+1
7	BOT-111	Principles of Plant Biotechnology	2=1+1
8	BOT-122	Environmental Science	2=1+1
9	SSAC-121	Soil Fertility, Fertilizers and Nutrient Management	2=1+1
10	SSAC-232	Soil, Water and Plant analysis	2=0+2
11	ASDS- 231	Animal Production Management	2=1+1
12	ASDS-242	Value Addition in Animal Products	2=1+1
13	ENGG-121	Farm Structures and Green House technology	2=1+1
14	ENGG-232	Post-Harvest Technology of Cereals, Pulses, Oilseeds and Cash crops	2=1+1

15	ENT- 121	Integrated Pest Management	2=1+1
16	PATH-231	Integrated Disease Management	2=1+1
17	PATH-362	Bio-fertilizers and Mushroom Production	2=1+1
18	EXTN-121	Entrepreneurship and Personality Development	2=2+0
19	EXTN-232	Communication Skills and Market-Led Extension for Business Management	2=1+1
20	EXTN-243	Consumers Psychology in Business Management	2=1+1
21	EXTN-354	Information Technology in Agri- Business	2=1+1
22	EXTN-365	Organizational Behaviour for Business Management	2=2+0
23	COMP- 111	Introduction to Computer Applications	2=1+1
24	STAT-241	Business Statistics	3=2+1
		<b>Total</b>	<b>51=29+22</b>

## 2. Department of Agricultural Economics

Sr. No.	Course No.	Course Title	Credits
1	ECON- 111	Agricultural Economics and Natural Resource Economics	3=2+1
3	ECON- 112	Structure and Dynamics of Indian Agriculture	2=2+0
2	ECON-123	Farm Business Management	2=1+1
4	ECON-124	Money, Banking and International Trade	2=1+1
5	ECON-235	Agril. Co-operation, Institutions and Management	3=2+1
7	ECON- 246	Indian Agricultural Policies	2=2+0
6	ECON-357	Input-Output Measurement Techniques	2=1+1
8	ECON- 358	Research Methods in Social Sciences	2=1+1
9	ECON-369	Planning, Formulation and Evaluation of Business Projects	3=1+2
10	ECON-3610	Financial Management in Agri- Business	3=2+1
		<b>Total</b>	<b>24 = 15 + 9</b>

## 3. Department of Agricultural Marketing

Sr. No.	Course No.	Course Title	Credits
1	MKT-121	Introduction to Agricultural Marketing	2=1+1
3	MKT-232	Marketing Institutions and Organizations	3=2+1
2	MKT-233	Input Marketing Management	3=2+1
4	MKT-244	Rural Marketing and Market Infrastructure	3=2+1
5	MKT-245	Retail Marketing	3=2+1
7	MKT-356	Trading of Agricultural Commodities-I	2=1+1
6	MKT-357	Market and Trade Acts	2=2+0
8	MKT-368	Trading of Agricultural Commodities-II	2=1+1
		<b>Total</b>	<b>20 = 13 + 7</b>

#### 4. Department of Agri-Business Management

Sr. No.	Course No.	Course Title	Credits
1	ABM-111	Introduction to Agri-Business Management	2=1+1
2	ABM-122	Agro-based Industrialization	2=2+0
3	ABM-233	Office Procedures for Agri-Business	1=0+1
4	ABM-244	Disaster Management in Agriculture	2=1+1
5	ABM-355	Inventory and Risk Management	2=1+1
6	ABM-356	Agro-tourism	2=1+1
7	ABM-357	Production Management, Planning and Control	2=1+1
8	ABM-358	Agro-Processing Managements	2=1+1
9	ABM-359	Marketing and Management Policies	2=1+1
10	ABM-3610	Agri-Business Operations, HRD and Strategic Management	2=2+0
11	ABM-3611	Product Promotion Methods	2=1+1
12	ABM-3612	Managerial Accounting	2=1+1
13	ABM-3613	Market Survey and Price Analysis	2=0+2
		<b>Total</b>	<b>25=13+12</b>
		<b>GRANT TOTAL</b>	<b>120 =70 +50</b>

**Section "F" : Syllabus of following courses of B.Tech (Agril. Engg.) for 3.5 % weightage**

##### 1) Basic Science and Computer Technology

Course Number	Course Title	Credits
BS-MATH-111	Engineering Mathematics-I	3(2+1)
BS-PHY-112	Engineering Physics	3(2+1)
BS-CT-113	Computer Programming and Data Structures	3(1+2)
BS-MATH-124	Engineering Mathematics-II	3(2+1)
BS-CT-125	Database Management and Internet Applications	2(0+2)
BS-MATH-236	Engineering Mathematics-III	3(2+1)
BS-STAT-237	Statistical Methods	2(1+1)
	<b>Total</b>	<b>19(10+9)</b>

##### 2) Agricultural Science

Course Number	Course Title	Credits
AG-111	Agronomy	2(1+1)
AG-112	Horticulture	2(1+1)
AG-113	Animal Sciences and Dairy Science	2(1+1)
AG-124	Soil Science	2(1+1)
AG-245	Agribusiness Management and Trade	2(2+0)
AG-366	Entrepreneurship Development and Communication Skills	2(1+1)
	<b>Total</b>	<b>12(7+5)</b>

##### 3) Department of Farm Machinery and Power

Course Number	Course Title	Credits
FMP-111	Workshop Practice	2(0+2)
FMP-112	Engineering Drawing	2(0+2)
FMP-123	Workshop Technology	2(1+1)
FMP-124	Machine Drawing and Computer Graphics	2(0+2)
FMP-235	Theory of Machines	3(2+1)
FMP-236	Farm Power	2(1+1)
FMP-247	Farm Machinery and Equipment-I	2(1+1)
FMP-248	Tractor System and Control	2(1+1)

FMP-359	Farm Machinery and Equipment-II	2(1+1)
FMP-3610	Machine Design	3(2+1)
FMP-3611	Field Operation and Maintenance of Tractor and Farm Machinery	1(0+1)
	<b>Total</b>	<b>23(9+14)</b>

#### 4) Department of Soil and Water Conservation Engineering

Course Number	Course Title	Credits
SWCE-121	Surveying and Leveling	3(1+2)
SWCE-232	Soil Mechanics	3(2+1)
SWCE-233	Watershed Hydrology	3(2+1)
SWCE-244	Soil and Water Conservation Engineering	3(2+1)
SWCE-355	Soil and Water Conservation Structures	3(2+1)
SWCE-366	Watershed Planning and Management	3(2+1)
	<b>Total</b>	<b>18(11+7)</b>

#### 5) Department of Irrigation and Drainage Engineering

Course Number	Course Title	Credits
IDE-231	Fluid Mechanics	3(2+1)
IDE-242	Irrigation Engineering	3(2+1)
IDE-353	Groundwater, Wells and Pumps	3(2+1)
IDE-354	Drainage Engineering	3(2+1)
IDE-365	Advanced Irrigation System Design	2(1+1)
IDE-366	Minor Irrigation and Command Area Development	3(2+1)
	<b>Total</b>	<b>17(11+6)</b>

#### 6) Department of Agricultural Process Engineering

Course Number	Course Title	Credits
APE-121	Thermodynamics	3(2+1)
APE-232	Engineering Properties of Biological Materials and Food Quality	2(1+1)
APE-243	Heat and Mass Transfer	2(1+1)
APE-244	Crop Process Engineering	3(2+1)
APE-355	Dairy and Food Engineering	3(2+1)
APE-356	Drying of Farm Crop	2(1+1)
APE-357	Storage Engineering	2(1+1)
APE-368	Refrigeration and Air Conditioning	2(1+1)
	<b>Total</b>	<b>19(11+8)</b>

#### 7) Department of Farm Structure

Course Number	Course Title	Credits
FS-121	Engineering Mechanics	3(2+1)
FS-242	Building Materials	2(1+1)
FS-353	Strength of Material	3(2+1)
FS-354	Agricultural Structures and Environmental Control	3(2+1)
FS-365	Design of Structures	3(2+1)
	<b>Total</b>	<b>14(9+5)</b>

#### 8) Department of Electrical and Other Energy Sources

Course Number	Course Title	Credits
EOES-111	Engineering Chemistry	2(1+1)
EOES-122	Applied Electronics and Instrumentation	3(2+1)
EOES-233	Electrical Circuits	3(2+1)
EOES-244	Electrical Machines and Power Utilization	3(2+1)
EOES-365	Renewable Energy Sources	3(2+1)
	<b>Total</b>	<b>14(9+5)</b>
	<b>Total credit</b>	<b>136(77+59)</b>

**Section “G”: Syllabus of following courses of B.Tech (Food Science) for 3 % weightage**

**Department of Food Science and Technology**

Sr. No.	Course No.	Course Title	Credits
1	FST-111	Principles of Food Processing	2+1=3
2	FST-112	Food Production Trends and Programs	2+0=2
3	FST-123	Post harvest Management of Fruit and Vegetable	2+1=3
4	FST-124	Cereal Processing	2+1=3
5	FST-235	Legume and Oilseed Technology	2+1=3
6	FST-236	Meat, Poultry and Fish Technology	2+1=3
7	FST-237	Wheat Milling and Baking Technology	2+1=3
8	FST-238	Confectionery Technology	1+1=2
9	FST-249	Fruit and Vegetable Processing	2+1=3
10	FST-2410	Food Quality	1+1=2
11	FST-2411	Processing of Milk and Milk Products	1+1=2
12	FST-2412	Spice and Flavor Technology	2+1=3
13	FST-3513	Food Industry By-Products and Waste Utilization	1+1=2
14	FST-3514	Carbonated Beverage Technology	1+1=2
15	FST-3615	Product Development and Formulation	1+1=2
16	FST-3616	Speciality Foods	2+1=3
17	FST-3617	Extrusion Technology	1+1=2
18	FST-3618	Quality Assurance and Certification	2+1=3
<b>Total</b>			<b>29+17= 46</b>

**Department of Food Chemistry and Nutrition**

Sr. No.	Course No.	Course Title	Credits
1	FCN-111	Bio-chemistry	2+1=3
2	FCN-112	Food Chemistry-I	2+1=3
3	FCN-123	Food Chemistry –II	2+1=3
4	FCN-124	Human Nutrition	2+1=3
5	FCN-235	Techniques in Food Analysis	1+2=3
6	FCN-246	Food Additives	2+1=3
7	FCN-247	Environmental Science	2+1=3
<b>Total credits</b>			<b>13+8= 21</b>

**Department of Food and Industrial Microbiology**

Sr. No.	Course No.	Course Title	Credits
1	FIM-111	Fundamentals of Microbiology	2+1=3
2	FIM-122	Food Microbiology	2+1=3
3	FIM-233	Fermentation and Industrial Microbiology	2+1=3
4	FIM-244	Food Safety and Microbial Standards	2+1=3
5	FIM-355	Food Bio-technology	2+1=3
6	FIM-366	Food Hygiene and Sanitation	2+1=3
<b>Total credits</b>			<b>12+6= 18</b>

**Department of Food Engineering**

Sr. No.	Course No.	Course Title	Credits
1	FE-111	Engineering Drawing	0+1=1
2	FE-112	Fluid Mechanics and Hydraulics	1+1=2
3	FE-123	Energy Generation and Conservation	2+1=3
4	FE-124	Heat and Mass Transfer	1+1=2
5	FE-235	Food Processing Equipments-I	2+1=3
6	FE-236	Food Packaging	2+1=3
7	FE-247	Food Processing Equipments-II	2+1=3
8	FE-358	Refrigeration Engineering and Cold Chain	2+1=3
9	FE-359	Bio-Chemical Engineering	2+1=3
10	FE-3510	Instrumentation and Process Control	2+1=3
11	FE-3611	Food Plant Design and Layout	1+2=3
		<b>Total credits</b>	<b>17+12=29</b>

**Department of Food Trade and Business Management**

Sr. No.	Course No.	Course Title	Credits
1	FTBM-351	Co-operation, Marketing and Finance	2+1=3
2	FTBM-352	Business Management and International Trade	2+0=2
3	FTBM-363	Entrepreneurship Development and Communication Skills	1+1=2
4	FTBM-364	Food Laws and Regulations	2+1=3
		<b>Total credits</b>	<b>7+3=10</b>
		<b>Grand Total</b>	<b>78+46=124</b>

**Section "H": Syllabus of following courses of B.Sc. (Home Science) for 1.5 % weightage**

Sr. No.	Course No.	Course Title	Credits
1	FSN 111	Elements of Food science	2+1
2	FRM 111	Management of Family Resources	2+0
3	TAD 111	Fundamentals of clothing construction	1+2
4	HECM 111	Home Science Extension & Rural Development	2+1
5	HDFS 111	Life Span Development	2+1
6	FSN 122	Introduction to Human Nutrition	2+1
7	HDFS 122	Early Childhood Development, Care & Education	2+1
8	TAD 122	Textile Science & Care	2+1
9	FRM 122	Family Economics	1+1
10	FRM 123	Consumer Education	1+1
11	HECM 122	Communication & Instructional Technology	1+2
12	FSN 233	Normal and Therapeutic Nutrition	2+1
13	FRM 234	Housing and space Management	1+2
14	HDFS 233	Children with Developmental Challenges	2+1



15	HECM 233	Diffusion and adoption of Home stead technology	2+1
16	TAD 233	Apparel Designing & Construction	1+2
17	FSN 244	Food preservation and Storage	1+2
18	FRM 245	Fundamentals of Art & Design	1+2
19	TAD 244	Fundamentals of Textile Designing	2+1
20	HDFS 244	Dynamics of Marriage & Family	2+1
21	HECM 244	Programme Development	1+2
22	FSN ND 351	Food Science	2+1
23	FSN ND 361	Advanced Human Nutrition	3+0
24	FRM ID 351	Space Designing-I (Residential)	1+2
25	FRM ID 361	Interior Designing & Decoration	1+2
26	HDFS MEC 362	Organisation & Management of ECCD Programmes	2+3
27	TAD TD 353	Principles of Design Application	1+3
28	HE IT CM 353	Training & Human Resource Development	1+3
		<b>Total Credits</b>	<b>85</b>

**Annexure: “C”**

**Section “A”: Syllabus for CET in Horticulture Stream for 80 %**

**Division of Fruit Science**

Sr. No.	Course No.	Course title	Credits
1	H/FS-231	Tropical and Subtropical Fruits	2+1
2	H/FS-242	Breeding of Fruit and Plantation Crops	2+1
3	H/FS-243	Arid Fruit Crops	1+1
4	H/FS-354	Temperate and Plantation Fruit Crops	2+1
5	H/HORT-111	Fundamentals of Horticulture	2+1
6	H/HORT-122	Plant Propagation and Nursery Management	2+1
		<b>Total</b>	<b>11+6=17</b>

**Division of Vegetable Science**

Sr. No.	Course No.	Course title	Credits
1	H/VS-231	Tropical and Subtropical Vegetable Crops	2+1
2	H/VS-242	Temperate Vegetable Crops	1+1
3	H/VS-353	Breeding of Vegetable Crops	2+1
4	H/VS-364	Seed Production of Vegetable Crops	2+1
5	H/VS-365	Protected Cultivation of Vegetable Crops	1+1
6	H/SPICON-231	Spices and Condiments	1+1
		<b>Total</b>	<b>9+6=15</b>

**Division of Floriculture and Landscaping**

Sr. No.	Course No.	Course title	Credits
1	H/FL-111	Ornamental Horticulture	1+1
2	H/FL-232	Landscape Gardening	1+1
3	H/FL-243	Commercial Floriculture	2+1
4	H/FL-354	Protected Cultivation of Flower Crops	1+1
5	H/FL-365	Breeding and Seed Production of Ornamental Plants	1+1
		<b>Total</b>	<b>6+5=11</b>

**Division of Post Harvest Technology**

Sr. No.	Course No.	Course title	Credits
1	H/PHT-231	Post Harvest Management of Horticultural Crops	2+1
2	H/PHT-362	Processing and Value Addition of Horticultural Crops	1+2
		<b>Total</b>	<b>3+3=6</b>

**Division of Plant Protection**

Sr. No.	Course No.	Course title	Credits
1	H/PATH-121	Fundamentals of Plant Pathology	1+1
2	H/PATH-232	Diseases of Vegetable, Ornamental and Spice Crops	2+1
3	H/PATH-242	Diseases of Fruits, Plantation, Aromatic and Medicinal Crops	2+1
4	H/PATH-354	Mushroom Culture	0+1
5	H/MIBO-111	Introductory Microbiology	1+1

6	H/MIBO-362	Applied Microbiology	0+1
7	H/ENTO-121	Fundamentals of Entomology	1+1
8	H/ENTO-352	Insect Pest Management of Fruit, Plantation, Medicinal and Aromatic Plants	2+1
9	H/ENTO-353	Insect Pest Management of Vegetable, Ornamental and Spice Crops	2+1
10	H/ENTO-364	Nematode Pests of Horticultural Crops and their Management	1+1
11	H/ENTO-365	Apiculture	0+1
		<b>Total</b>	<b>12+11=23</b>

#### Division of Natural Resource Management

Sr. No.	Course No.	Course title	Credits
1	H/SSAC-111	Fundamentals of Soil Science	1+1
2	H/SSAC-244	Soil, Irrigation Water and Plant Analysis	0+1
3	H/SSAC-232	Fundamentals of Bio-chemistry	1+1
4	H/SSAC-122	Soil Fertility and Nutrient Management	2+1
5	H/BOT-354	Environmental Science and Agro-ecology	1+1
6	H/AGRO-121	Water Management of Horticultural Crops	1+1
7	H/AGRO-232	Weed Management in Horticultural Crops	1+1
8	H/AGRO-243	Organic Farming	1+1
9	H/AGROMET-111	Agriculture Meteorology	1+1
10	H/ENGG-351	Farm Power and Machinery	1+1
		<b>Total</b>	<b>10+10=20</b>

#### Division of Basic Science & Humanities

Sr. No.	Course No.	Course title	Credits
1	H/HORT-123	Growth and Development of Horticultural Crops	1+1
2	H/HORT-354	Introductory Agroforestry and Horti-silvipasture	1+1
3	H/BIOT-361	Fundamentals of Bio-technology	1+1
4	H/BOT-111	Principles of Genetics and Cytogenetics	2+1
5	H/BOT-122	Principles of Plant Breeding	1+1
6	H/BOT-123	Introductory Plant Physiology	1+1
7	H/AROMED-241	Aromatic and Medicinal Crops	1+1
8	H/EXTN-111	Fundamentals of Extension Education	1+1
9	H/EXTN-122	Agril. Communication and Journalism	0+1
10	H/EXTN-363	Entrepreneurship Development and Communication Skills	1+1
11	H/ECON-232	Horti-Business Management	2+0
12	H/ECON-111	Introductory Economics	2+0
13	H/STAT-121	Elementary Statistics	1+1
14	H/COMP-111	Computer Application	1+1
		<b>Total</b>	<b>16+12=28</b>
		<b>Grand Total</b>	<b>67+53=120</b>

**Syllabus for CET Horticulture for 20 %**

**Section “B” : Syllabus of following courses of B.Sc. Agriculture for 10 % Weightage**

<b>Subject</b>	<b>Course No.</b>	<b>Title</b>	<b>Credits</b>
<b>Agronomy</b>	AGRO-111	Principles of Agronomy	1+1=2
	AGRO-112	Agricultural Meteorology	1+1=2
	AGRO-113	Introductory Agriculture (Ancient heritage, agricultural scenario and gender equity in Agriculture)	1+0=1
	AGRO-124	Water Management including Micro irrigation	2+1=3
	AGRO-235	Field Crops – (I) ( <i>Kharif Crops</i> )	2+1=3
	AGRO-236	Practical Crop Production (I) ( <i>Kharif Crops</i> )	0+1=1
	AGRO-247	Field Crops-(II) (Rabi Crops)	2+1=3
	AGRO-248	Practical Crop Production (II) (Rabi Crops)	0+1=1
	AGRO-359	Weed Management	1+1=2
	AGRO-3611	Organic and Rainfed farming	1+1=2
<b>Total</b>			<b>12+10=22</b>
<b>Botany</b>	BOT-111	Environmental Science	1+1=2
	BOT-122	Principles of genetics	2+1=3
	BOT-233	Principles of Plant Breeding	2+1=3
	BOT-234	Crop Physiology	2+1=3
	BOT-245	Breeding of field and Horticultural crops	2+1=3
	BOT-356	Principles of Plant Biotechnology	2+1=3
	BOT-367	Principles of Seed Technology	2+1=3
<b>Total</b>			<b>13+7=20</b>
<b>Soil Science</b>	SSAC-111	Introduction to Soil Science	2+1=3
	SSAC-122	Soil Chemistry, Soil Fertility and Nutrient Management	2+1=3
	SSAC-243	Manures, Fertilizers and Agrochemicals	2+1=3
	SSAC-354	Biochemistry	2+1=3
<b>Total</b>			<b>8+4=12</b>
<b>Plant Pathology</b>	PATH-111	Introductory Plant Pathology	1+1=2
	MIBO-121	Agricultural Microbiology	2+1=3
	PATH-232	Principles of Plant Pathology	1+1=2
	PATH-243	Diseases of Field Crops and their Management	2+1=3
	PATH-354	Diseases of Horticultural Crops and their Management	2+1=3
<b>Total</b>			<b>8+5=13</b>
<b>Horticulture</b>	HORT-111	Production Technology of Fruit Crops	2+1=3
	HORT-132	Production Technology of Vegetables and Flowers	1+1=2
	HORT-243	Production Technology of Spices, Aromatics, Medicinal and Plantation Crops	1+1=2

	HORT-364	Post Harvest Management and Value addition of Fruits and Vegetable	1+1=2
<b>Total</b>			<b>5+4=9</b>
<b>Agricultural Extension</b>	EXTN-111	Fundamentals of Rural Sociology and Educational Psychology	2+0=2
	EXTN-122	Dimensions of Agricultural Extension	1+1=2
	EXTN-353	Extension Methodologies for Transfer of Agricultural Technology	1+1=2
	EXTN-364	Entrepreneurship Development and Communication Skills	1+1=2
<b>Total</b>			<b>5+3=8</b>
<b>Agricultural Economics</b>	ECON-121	Principles of Agricultural Economics	2+0=2
	ECON-232	Production Economics and Farm Management	1+1=2
	ECON-243	Agricultural Finance & Co-operation	1+1=2
	ECON-354	Agricultural Marketing, Trade and Prices	1+1=2
	ECON-365	Agri-Business Management	1+1=2
	STAT-121	Statistics	1+1=2
<b>Total</b>			<b>7+5=12</b>
<b>Animal Science &amp; Dairy Science</b>	ASDS-111	Livestock Production and Management	1+1=2
	ASDS-242	Livestock Breeding and Nutrition	1+1=2
	ASDS-353	Technology of milk and milk Products	1+1=2
	ASDS-364	Sheep & Goat production	1+1=2
<b>Total</b>			<b>4+4=8</b>
<b>Agricultural Entomology</b>	ENT-231	Insect Morphology and Systematic	2+1=3
	ENT-242	Insect Ecology, Integrated Pest Management and Beneficial Insects	2+1=3
	ENT-353	Crop Pests and Stored Grain Pests and their Management	2+1=3
	ENT-364	Introductory Nematology	1+1=2
<b>Total</b>			<b>7+4=11</b>
<b>Agricultural Engineering</b>	ENGG-121	Fundamentals of Soil and Water Conservation Engineering	1+1=2
	ENGG-232	Introduction to Computer and Applications	1+1=2
	ENGG-353	Farm Power and Machinery	1+1=2
	ENGG-364	Protected Cultivation and Post harvest Technology	1+1=2
<b>Total</b>			<b>4+4=8</b>
<b>Grand Total</b>			<b>74+51=125</b>

**Section “C”: Syllabus of following courses of B.Sc. Forestry for 10 %**

Sr. No.	Name of department/ Discipline	No. of Credits	
<b>1.</b>	<b>Agricultural Sciences</b>	<b>34</b>	
	<b>Agricultural Botany</b>	<b>7</b>	
	F/BOT – 111 Principles of Cytology and Genetics	2(1+1)	
	F/BOT – 112 Principles of Plant Physiology	2(1+1)	
	F/ BOT – 113 Introductory Botany	3(2+1)	
	<b>Agricultural Economics</b>	<b>2</b>	
	F/ ECON – 111 Introductory Forest Economics	2(2+0)	
	<b>Soil Science</b>	<b>4</b>	
	F/SSAC – 111 Fundamentals of Geology and Soil Science	2(1+1)	
	F/SSAC– 232 Fundamentals of Biochemistry	2(1+1)	
	<b>Horticulture</b>	<b>3</b>	
	F/HORT – 111 Fundamentals of Horticulture	3(2+1)	
	<b>Extension Education</b>	<b>5</b>	
	F/ EXTN – 241 Fundamentals of Extension Education	2(1+1)	
	F/ EXTN – 362 Entrepreneurship Development and Communication Skills	3 (2+1)	
	<b>Agricultural Engineering</b>	<b>5</b>	
	F/ENGG - 121 Principles of Hydrology, Soil and Water Conservation	3(2+1)	
	F/ENGG – 351 Introduction to Computer Application	2(1+1)	
	<b>Biotechnology</b>	<b>2</b>	
	F/ BIOT-361 Fundamentals of Biotechnology	2(1+1)	
	<b>Animal Science and Dairy Science</b>	<b>2</b>	
	F/ASDS – 241 Livestock Management	2(1+1)	
	<b>Agricultural Statistics</b>	<b>2</b>	
	F/ STAT – 351 Elementary Statistics	2(1+ 1)	
	<b>Agricultural Meteorology</b>	<b>2</b>	
	F/AGROMET – 111 Agricultural Meteorology	2(1+1)	
<b>2.</b>	<b>Forest Biology and Tree Improvement</b>	<b>22</b>	
	FBT – 121 Dendrology	3(2+1)	
	FBT – 122		

	Forest Ecology, Biodiversity and Conservation FBT – 123	3(2+1)	
	Tree Physiology FBT – 234	2(1+1)	
	Principles of Tree Improvement FBT – 235	3(2+1)	
	Tree Seed Technology FBT – 246	2(1+1)	
	Fundamentals of Wildlife FBT – 247	2(2+0)	
	Forest Pathology FBT – 358	3(2+1)	
	Wild Life Management FBT – 369	2(1+1)	
	Forest Entomology and Nematology	3(2+1)	
<b>3.</b>	<b>Silviculture and Agroforestry</b>	<b>24</b>	
	SAF – 121 Principle and Practices of Silviculture	4(3+1)	
	SAF – 232 Forest Mensuration	3(2+1)	
	SAF – 233 Nursery Management	2(1+1)	
	SAF – 244 Silviculture of Indian Trees	3(2+1)	
	SAF – 245 World Forestry Systems	2(2+0)	
	SAF – 356 Silvicultural Systems	2(2+0)	
	SAF – 357 Plantation Forestry and Wasteland Development	2(1+1)	
	SAF – 358 Environmental Science	3(2+1)	
	SAF – 369 Agro forestry System and Management	3(2+1)	
<b>4.</b>	<b>Forest Product Utilization</b>	<b>17</b>	
	FPU – 121 Ethnobotany	3(2+1)	
	FPU – 232 Wood Anatomy	2(1+1)	
	FPU – 233 Logging and Ergonomics	2(1+1)	
	FPU – 244 Wood Science and Technology	3(2+1)	
	FPU – 245 Wood Products and Utilization	2(1+1)	
	FPU – 356 Medicinal and Aromatic Plants	3(2+1)	
	FPU – 367 Utilization of Non-Timber Forest Products	3(2+1)	
<b>5.</b>	<b>Natural Resource Management</b>	<b>23</b>	
	NRM – 121 Chemistry and Fertility of Forest Soils	3(2+1)	
	NRM – 232		

Forest Engineering and Survey NRM – 233	2(1+1)	
Soil Survey and Remote sensing NRM – 244	3(2+1)	
Forest Tribology and Anthropology NRM – 355	2(2+0)	
Rangeland Management NRM – 356	3 (2+1)	
Principles of Forest Economics, Project Planning and Evaluation NRM – 367	2(1+1)	
Forest Management, Policy and Legislation NRM – 368	3(2+1)	
Forest Business Management NRM -369	2(1+1)	
Marketing and Trade of Forest Produce	3(2+1)	
	<b>Total</b>	<b>120</b>



**Annexure: “D”****Section “A”: Syllabus for CET in Forestry Stream for 80 %**

Sr. No.	Name of department/ Discipline	No. of Credits	No. of Questions
<b>1.</b>	<b>Agricultural Sciences</b>	<b>34</b>	<b>45</b>
	<b>Agricultural Botany</b>	<b>7</b>	<b>9</b>
	F/BOT – 111 Principles of Cytology and Genetics	2(1+1)	
	F/BOT – 112 Principles of Plant Physiology	2(1+1)	
	F/ BOT – 113 Introductory Botany	3(2+1)	
	<b>Agricultural Economics</b>	<b>2</b>	<b>3</b>
	F/ ECON – 111 Introductory Forest Economics	2(2+0)	
	<b>Soil Science</b>	<b>4</b>	<b>5</b>
	F/SSAC – 111 Fundamentals of Geology and Soil Science	2(1+1)	
	F/SSAC– 232 Fundamentals of Biochemistry	2(1+1)	
	<b>Horticulture</b>	<b>3</b>	<b>4</b>
	F/HORT – 111 Fundamentals of Horticulture	3(2+1)	
	<b>Extension Education</b>	<b>5</b>	<b>7</b>
	F/ EXTN – 241 Fundamentals of Extension Education	2(1+1)	
	F/ EXTN – 362 Entrepreneurship Development and Communication Skills	3(2+1)	
	<b>Agricultural Engineering</b>	<b>5</b>	<b>7</b>
	F/ENGG 121 Principles of Hydrology, Soil and Water Conservation	3(2+1)	
	F/ENGG – 351 Introduction to Computer Application	2(1+1)	
	<b>Biotechnology</b>	<b>2</b>	<b>3</b>
	F/ BIOT-361 Fundamentals of Biotechnology	2(1+1)	
	<b>Animal Science and Dairy Science</b>	<b>2</b>	<b>3</b>
	F/ASDS – 241 Livestock Management	2(1+1)	
	<b>Agricultural Statistics</b>	<b>2</b>	<b>3</b>
	F/ STAT – 351 Elementary Statistics	2(1+ 1)	
	<b>Agricultural Meteorology</b>	<b>2</b>	<b>3</b>
	F/AGROMET – 111 Agricultural Meteorology	2(1+1)	
<b>2.</b>	<b>Forest Biology and Tree Improvement</b>	<b>22</b>	<b>29</b>
	FBT – 121 Dendrology	3(2+1)	

	FBT – 122 Forest Ecology, Biodiversity and Conservation	3(2+1)	
	FBT – 123 Tree Physiology	2(1+1)	
	FBT – 234 Principles of Tree Improvement	3(2+1)	
	FBT – 235 Tree Seed Technology	2(1+1)	
	FBT – 246 Fundamentals of Wildlife	2(2+0)	
	FBT – 247 Forest Pathology	3(2+1)	
	FBT – 358 Wild Life Management	2(1+1)	
	FBT – 369 Forest Entomology and Nematology	3(2+1)	
<b>3.</b>	<b>Silviculture and Agroforestry</b>	<b>24</b>	<b>32</b>
	SAF – 121 Principle and Practices of Silviculture	4(3+1)	
	SAF – 232 Forest Mensuration	3(2+1)	
	SAF – 233 Nursery Management	2(1+1)	
	SAF – 244 Silviculture of Indian Trees	3(2+1)	
	SAF – 245 World Forestry Systems	2(2+0)	
	SAF – 356 Silvicultural Systems	2(2+0)	
	SAF – 357 Plantation Forestry and Wasteland Development	2(1+1)	
	SAF – 358 Environmental Science	3(2+1)	
	SAF – 369 Agro forestry System and Management	3(2+1)	
<b>4.</b>	<b>Forest Product Utilization</b>	<b>17</b>	<b>23</b>
	FPU – 121 Ethnobotany	3(2+1)	
	FPU – 232 Wood Anatomy	2(1+1)	
	FPU – 233 Logging and Ergonomics	2(1+1)	
	FPU – 244 Wood Science and Technology	3(2+1)	
	FPU – 245 Wood Products and Utilization	2(1+1)	
	FPU – 356 Medicinal and Aromatic Plants	3(2+1)	
	FPU – 367 Utilization of Non-Timber Forest Products	3(2+1)	
<b>5.</b>	<b>Natural Resource Management</b>	<b>23</b>	<b>31</b>
	NRM – 121 Chemistry and Fertility of Forest Soils	3(2+1)	

NRM – 232	Forest Engineering and Survey	2(1+1)	
NRM – 233	Soil Survey and Remote sensing	3(2+1)	
NRM – 244	Forest Tribology and Anthropology	2(2+0)	
NRM – 355	Rangeland Management	3(2+1)	
NRM – 356	Principles of Forest Economics, Project Planning and Evaluation	2(1+1)	
NRM – 367	Forest Management, Policy and Legislation	3(2+1)	
NRM – 368	Forest Business Management	2(1+1)	
NRM -369	Marketing and Trade of Forest Produce	3(2+1)	
<b>Total</b>		<b>120</b>	<b>160</b>

**Syllabus for CET Forestry for 20 %**  
**Section “B”:** Syllabus of following courses of B.Sc. Agriculture for 10 %

Subject	Course No.	Title	Credits
<b>Agronomy</b>	AGRO-111	Principles of Agronomy	1+1=2
	AGRO-112	Agricultural Meteorology	1+1=2
	AGRO-113	Introductory Agriculture (Ancient heritage, agricultural scenario and gender equity in Agriculture)	1+0=1
	AGRO-124	Water Management including Micro irrigation	2+1=3
	AGRO-235	Field Crops – (I) ( <i>Kharif Crops</i> )	2+1=3
	AGRO-236	Practical Crop Production (I) ( <i>Kharif Crops</i> )	0+1=1
	AGRO-247	Field Crops-(II) (Rabi Crops)	2+1=3
	AGRO-248	Practical Crop Production (II) (Rabi Crops)	0+1=1
	AGRO-359	Weed Management	1+1=2
	AGRO-3611	Organic and Rainfed farming	1+1=2
<b>Total</b>			<b>12+10=22</b>
<b>Botany</b>	BOT-111	Environmental Science	1+1=2
	BOT-122	Principles of genetics	2+1=3
	BOT-233	Principles of Plant Breeding	2+1=3
	BOT-234	Crop Physiology	2+1=3
	BOT-245	Breeding of field and Horticultural crops	2+1=3
	BOT-356	Principles of Plant Biotechnology	2+1=3
	BOT-367	Principles of Seed Technology	2+1=3
<b>Total</b>			<b>13+7=20</b>
	SSAC-111	Introduction to Soil Science	2+1=3

<b>Soil Science</b>	SSAC-122	Soil Chemistry, Soil Fertility and Nutrient Management	2+1=3
	SSAC-243	Manures, Fertilizers and Agrochemicals	2+1=3
	SSAC-354	Biochemistry	2+1=3
<b>Total</b>			<b>8+4=12</b>
<b>Plant Pathology</b>	PATH-111	Introductory Plant Pathology	1+1=2
	MIBO-121	Agricultural Microbiology	2+1=3
	PATH-232	Principles of Plant Pathology	1+1=2
	PATH-243	Diseases of Field Crops and their Management	2+1=3
	PATH-354	Diseases of Horticultural Crops and their Management	2+1=3
<b>Total</b>			<b>8+5=13</b>
<b>Horticulture</b>	HORT-111	Production Technology of Fruit Crops	2+1=3
	HORT-132	Production Technology of Vegetables and Flowers	1+1=2
	HORT-243	Production Technology of Spices, Aromatics, Medicinal and Plantation Crops	1+1=2
	HORT-364	Post Harvest Management and Value addition of Fruits and Vegetable	1+1=2
<b>Total</b>			<b>5+4=9</b>
<b>Agricultural Extension</b>	EXTN-111	Fundamentals of Rural Sociology and Educational Psychology	2+0=2
	EXTN-122	Dimensions of Agricultural Extension	1+1=2
	EXTN-353	Extension Methodologies for Transfer of Agricultural Technology	1+1=2
	EXTN-364	Entrepreneurship Development and Communication Skills	1+1=2
<b>Total</b>			<b>5+3=8</b>
<b>Agricultural Economics</b>	ECON-121	Principles of Agricultural Economics	2+0=2
	ECON-232	Production Economics and Farm Management	1+1=2
	ECON-243	Agricultural Finance & Co-operation	1+1=2
	ECON-354	Agricultural Marketing, Trade and Prices	1+1=2
	ECON-365	Agri-Business Management	1+1=2
	STAT-121	Statistics	1+1=2
<b>Total</b>			<b>7+5=12</b>
<b>Animal Science &amp; Dairy Science</b>	ASDS-111	Livestock Production and Management	1+1=2
	ASDS-242	Livestock Breeding and Nutrition	1+1=2
	ASDS-353	Technology of milk and milk Products	1+1=2
	ASDS-364	Sheep & Goat production	1+1=2
<b>Total</b>			<b>4+4=8</b>
	ENT-231	Insect Morphology and Systematic	2+1=3

<b>Agricultural Entomology</b>	ENT-242	Insect Ecology, Integrated Pest Management and Beneficial Insects	2+1=3
	ENT-353	Crop Pests and Stored Grain Pests and their Management	2+1=3
	ENT-364	Introductory Nematology	1+1=2
<b>Total</b>			<b>7+4=11</b>
<b>Agricultural Engineering</b>	ENGG-121	Fundamentals of Soil and Water Conservation Engineering	1+1=2
	ENGG-232	Introduction to Computer and Applications	1+1=2
	ENGG-353	Farm Power and Machinery	1+1=2
	ENGG-364	Protected Cultivation and Post harvest Technology	1+1=2
<b>Total</b>			<b>4+4=8</b>
<b>Grand Total</b>			<b>73+50=123</b>

**Section “ C ”: Syllabus of following courses of B.Sc. Hort for 10 % Weightage Division of Fruit Science**

Sr. No.	Course No.	Course title	Credits
1	H/FS-231	Tropical and Subtropical Fruits	2+1
2	H/FS-242	Breeding of Fruit and Plantation Crops	2+1
3	H/FS-243	Arid Fruit Crops	1+1
4	H/FS-354	Temperate and Plantation Fruit Crops	2+1
5	H/HORT-111	Fundamentals of Horticulture	2+1
6	H/HORT-122	Plant Propagation and Nursery Management	2+1
<b>Total</b>			<b>11+6=17</b>

**Division of Vegetable Science**

Sr. No.	Course No.	Course title	Credits
1	H/VS-231	Tropical and Subtropical Vegetable Crops	2+1
2	H/VS-242	Temperate Vegetable Crops	1+1
3	H/VS-353	Breeding of Vegetable Crops	2+1
4	H/VS-364	Seed Production of Vegetable Crops	2+1
5	H/VS-365	Protected Cultivation of Vegetable Crops	1+1
6	H/SPICON-231	Spices and Condiments	1+1
<b>Total</b>			<b>9+6=15</b>

**Division of Floriculture and Landscaping**

Sr. No.	Course No.	Course title	Credits
1	H/FL-111	Ornamental Horticulture	1+1
2	H/FL-232	Landscape Gardening	1+1
3	H/FL-243	Commercial Floriculture	2+1
4	H/FL-354	Protected Cultivation of Flower Crops	1+1
5	H/FL-365	Breeding and Seed Production of Ornamental Plants	1+1
<b>Total</b>			<b>6+5=11</b>

**Division of Post Harvest Technology**

Sr. No.	Course No.	Course title	Credits
1	H/PHT-231	Post Harvest Management of Horticultural Crops	2+1
2	H/PHT-362	Processing and Value Addition of Horticultural Crops	1+2
		<b>Total</b>	<b>3+3=6</b>

**Division of Plant Protection**

Sr. No.	Course No.	Course title	Credits
1	H/PATH-121	Fundamentals of Plant Pathology	1+1
2	H/PATH-232	Diseases of Vegetable, Ornamental and Spice Crops	2+1
3	H/PATH-242	Diseases of Fruits, Plantation, Aromatic and Medicinal Crops	2+1
4	H/PATH-354	Mushroom Culture	0+1
5	H/MIBO-111	Introductory Microbiology	1+1
6	H/MIBO-362	Applied Microbiology	0+1
7	H/ENTO-121	Fundamentals of Entomology	1+1
8	H/ENTO-352	Insect Pest Management of Fruit, Plantation, Medicinal and Aromatic Plants	2+1
9	H/ENTO-353	Insect Pest Management of Vegetable, Ornamental and Spice Crops	2+1
10	H/ENTO-364	Nematode Pests of Horticultural Crops and their Management	1+1
11	H/ENTO-365	Apiculture	0+1
		<b>Total</b>	<b>12+11=23</b>

**Division of Natural Resource Management**

Sr. No.	Course No.	Course title	Credits
1	H/SSAC-111	Fundamentals of Soil Science	1+1
2	H/SSAC-244	Soil, Irrigation Water and Plant Analysis	0+1
3	H/SSAC-232	Fundamentals of Bio-chemistry	1+1
4	H/SSAC-122	Soil Fertility and Nutrient Management	2+1
5	H/BOT-354	Environmental Science and Agro-ecology	1+1
6	H/AGRO-121	Water Management of Horticultural Crops	1+1
7	H/AGRO-232	Weed Management in Horticultural Crops	1+1
8	H/AGRO-243	Organic Farming	1+1
9	H/AGROMET-111	Agriculture Meteorology	1+1
10	H/ENGG-351	Farm Power and Machinery	1+1
		<b>Total</b>	<b>10+10=20</b>

**Division of Basic Science & Humanities**

<b>Sr. No.</b>	<b>Course No.</b>	<b>Course title</b>	<b>Credits</b>
1	H/HORT-123	Growth and Development of Horticultural Crops	1+1
2	H/HORT-354	Introductory Agroforestry and Horti-silvipasture	1+1
3	H/BIOT-361	Fundamentals of Bio-technology	1+1
4	H/BOT-111	Principles of Genetics and Cytogenetics	2+1
5	H/BOT-122	Principles of Plant Breeding	1+1
6	H/BOT-123	Introductory Plant Physiology	1+1
7	H/AROMED-241	Aromatic and Medicinal Crops	1+1
8	H/EXTN-111	Fundamentals of Extension Education	1+1
9	H/EXTN-122	Agril. Communication and Journalism	0+1
10	H/EXTN-363	Entrepreneurship Development and Communication Skills	1+1
11	H/ECON-232	Horti-Business Management	2+0
12	H/ECON-111	Introductory Economics	2+0
13	H/STAT-121	Elementary Statistics	1+1
14	H/COMP-111	Computer Application	1+1
		<b>Total</b>	<b>16+12=28</b>
		<b>Grand Total</b>	<b>67+53=120</b>

**Annexure: ‘E’**  
**Syllabus for CET in Home Science Stream for 100%**  
**List of the courses for CET along with weightage**

Sr. No.	Course No.	Course Title	Credits	Weightage
1	FSN 111	Elements of Food science	2+1	8
2	FRM 111	Management of Family Resources	2+0	6
3	TAD 111	Fundamentals of clothing construction	1+2	8
4	HECM 111	Home Science Extension & Rural Development	2+1	8
5	HDFS 111	Life Span Development	2+1	8
6	FSN 122	Introduction to Human Nutrition	2+1	8
7	HDFS 122	Early Childhood Development, Care & Education	2+1	8
8	TAD 122	Textile Science & Care	2+1	8
9	FRM 122	Family Economics	1+1	5
10	FRM 123	Consumer Education	1+1	5
11	HECM 122	Communication & Instructional Technology	1+2	8
12	FSN 233	Normal and Therapeutic Nutrition	2+1	8
13	FRM 234	Housing and space Management	1+2	8
14	HDFS 233	Children with Developmental Challenges	2+1	8
15	HECM 233	Diffusion and adoption of Home stead technology	2+1	8
16	TAD 233	Apparel Designing & Construction	1+2	8
17	FSN 244	Food preservation and Storage	1+2	8
18	FRM 245	Fundamentals of Art & Design	1+2	8
19	TAD 244	Fundamentals of Textile Designing	2+1	8
20	HDFS 244	Dynamics of Marriage & Family	2+1	8
21	HECM 244	Programme Development	1+2	8
22	FSN ND 351*	Food Science	2+1	5
23	FSN ND 361*	Advanced Human Nutrition	3+0	5
24	FRM ID 351*	Space Designing-I (Residential)	1+2	5
25	FRM ID 361*	Interior Designing & Decoration	1+2	5
26	HDFS MEC 362*	Organisation & Management of ECCD Programmes	2+3	8
27	TAD TD 353*	Principles of Design Application	1+3	6
28	HE IT CM 353*	Training & Human Resource Development	1+3	6
		<b>Total Credit</b>	<b>85</b>	

\*Specialization courses



### Annexure: “F”

#### Section “A” : Syllabus for CET in Agricultural Biotechnology Stream for 80 %

##### A. Department of Plant Biotechnology

Sr. No.	Title	Credits
PB-111	Fundamentals of Genetics	2+1=3
PB-122	Cell Biology	2+1=3
PB-123	Introduction to Plant Biotechnology	2+1=3
PB-234	Plant Breeding Techniques	2+1=3
PB-235	Molecular Markers in Plant Breeding	1+1=2
PB-246	Plants Cell and Tissue Culture	2+1=3
PB-357	Biotechnology of Biotic and Abiotic Stress Resistance	2+1=3
PB-358	Biodiversity Conservation	2+1=3
PB-369	Introduction to Bioinformatics	1+2=3
PB-3610	Biosafety Issues	2+0=2
PB 4712	Techniques in Genetic Transformation	1+3=4
PB 4713	PCR Techniques and its Application	1+3=4
PB 4714	Legal issues in GMO’ s and LMO’ s	1+3=4
PB 4715	Plant Genomics	1+3=4
<b>Total</b>		<b>22+22=44</b>

##### B. Dept. of Biochemistry and Molecular Biology

Sr. No.	Title	Credits
Bio-111	Basic Biochemistry	2+1=3
Bio-122	Enzymology	2+1=3
Bio-123	Microbial Genetics	2+1=3
Bio-234	Molecular Biology	2+1=3
Bio-235	Plant Metabolic Pathways	2+1=3
Bio-236	Elements of Immunology	1+1=2
Bio-247	Techniques in Biochemistry and Molecular Biology	2+2=4
Bio-358	Recombinant DNA Technology	2+1=3
Bio-369	Molecular Plant Virology	2+1=3
BIO 4710	Advances in Recombinant Technology	1+3=4
BIO 4711	Secondary Metabolites of Commercial Importance	1+3=4
BIO 4712	Immunological techniques and its Application	1+3=4
BIO 4713	Proteins and Proteomics	1+3=4
BIO 4714	Enzyme Technology	1+3=4
<b>Total</b>		<b>22+25=47</b>

##### C. Department of Post –harvest and Food Biotechnology

Sr. No.	Title	Credits
FB-121	Human Nutrition	1+1=2
FB-232	Industrial Microbiology and Fermentation Technology	2+2=4
FB-243	Enzyme Biotechnology in Food Processing	2+1=3
FB-244	Post-harvest Biotechnology of Food Grains	2+1=3
FB-355	Technological Applications in Food Processing	1+1=2
FB-356	Post-harvest Biotechnology of Horticultural Crops	2+1=3
FB-367	Food and Nutrition Security of GM Food crops	1+1=2
FB 478	Cereal Biotechnology	2+2=4
FB 479	Fruit and Vegetable Biotechnology	2+2=4
FB 4710	Brewing Technology	1+3=4
FB 4711	Wine Technology	1+3=4
FB 4712	Patenting Inventions in Food Biotechnology	2+2=4
<b>Total</b>		<b>19+20=39</b>

**D. Department of Animal Biotechnology**

<b>Sr. No.</b>	<b>Title</b>	<b>Credits</b>
AB-231	Basics in Animal Biotechnology	2+1=3
AB-242	Animal Cell Culture	2+1=3
AB-243	Biotechnology of Ruminant Feed Utilization	2+1=3
AB-354	Dairy Process Biotechnology	2+1=3
AB-355	Livestock Genome	2+1=3
AB-366	Animal Genetic Engineering	2+1=3
AB 477	Techniques in Animal Cell Culture	1+3=4
AB 478	Transgenic for improvements in animals	1+3=4
AB 479	Artificial Insemination techniques	1+3=4
AB 4710	Advances in Dairy Microbiology	1+3=4
AB 4711	Probiotics in milk and milk products	1+3=4
<b>Total</b>		<b>17+21=38</b>

**E. Department of Crop Science**

<b>Sr. No.</b>	<b>Title</b>	<b>Credits</b>
CS 111	Principles of Plant Physiology	2+1=3
CS 112	Field Crop Production	2+1=3
CS 113	Introductory Entomology	1+1=2
CS 124	Fundamentals of Plant Pathology	1+1=2
CS 125	Agricultural Microbiology	1+1=2
CS 126	Horticultural Crop Production	2+1=3
CS 237	Greenhouse Technology and Protected cultivation	1+1=2
CS 248	BioStatistics	1+1=2
CS 249	Intellectual Property Rights	1+0=1
CS 3510	Computer Application in Biotechnology	1+2=3
CS 3611	Management of Major Insect Pests and Diseases of Field and Horticultural Crops	1+1=2
CS 3612	Marketing and Export of Biotechnological Products	1+1=2
<b>Total</b>		<b>15+12=27</b>
<b>Total Credit</b>		<b>95+100=195</b>

**Syllabus for CET Agricultural Biotechnology for 20%**  
**Section “B”:** Syllabus of following courses of B.Sc. (Agri.) for 8% weightage

Subject	Course No.	Title	Credits
<b>Agronomy</b>	AGRO-111	Principles of Agronomy	1+1=2
	AGRO-112	Agricultural Meteorology	1+1=2
	AGRO-113	Introductory Agriculture (Ancient heritage, agricultural scenario and gender equity in Agriculture)	1+0=1
	AGRO-124	Water Management including Micro irrigation	2+1=3
	AGRO-235	Field Crops – (I) (Kharif Crops)	2+1=3
	AGRO-247	Field Crops-(II) (Rabi Crops)	2+1=3
	AGRO-359	Weed Management	1+1=2
	AGRO-3610	Farming Systems and Sustainable Agriculture	1+1=2
	AGRO-3611	Organic and Rainfed farming	1+1=2
<b>Total</b>			<b>12+8=20</b>
<b>Botany</b>	BOT-111	Environmental Science	1+1=2
	BOT-122	Principles of genetics	2+1=3
	BOT-233	Principles of Plant Breeding	2+1=3
	BOT-234	Crop Physiology	2+1=3
	BOT-245	Breeding of field and Horticultural crops	2+1=3
	BOT-356	Principles of Plant Biotechnology	2+1=3
	BOT-367	Principles of Seed Technology	2+1=3
<b>Total</b>			<b>13+7=20</b>
<b>Soil Science</b>	SSAC-111	Introduction to Soil Science	2+1=3
	SSAC-122	Soil Chemistry, Soil Fertility and Nutrient Management	2+1=3
	SSAC-243	Manures, Fertilizers and Agrochemicals	2+1=3
	SSAC-354	Biochemistry	2+1=3
<b>Total</b>			<b>8+4=12</b>
<b>Plant Pathology</b>	PATH-111	Introductory Plant Pathology	1+1=2
	MIBO-121	Agricultural Microbiology	2+1=3
	PATH-232	Principles of Plant Pathology	1+1=2
	PATH-243	Diseases of Field Crops and their Management	2+1=3
	PATH-354	Diseases of Horticultural Crops and their Management	2+1=3
<b>Total</b>			<b>8+5=13</b>
<b>Horticulture</b>	HORT-111	Production Technology of Fruit Crops	2+1=3
	HORT-232	Production Technology of Vegetables and Flowers	1+1=2
	HORT-243	Production Technology of Spices, Aromatics, Medicinal and Plantation Crops	1+1=2

	HORT-364	Post Harvest Management and Value addition of Fruits	1+1=2
<b>Total</b>			<b>5+4=9</b>
<b>Animal Science &amp; Dairy Science</b>	AHDS-111	Livestock Production and Management	1+1=2
	AHDS-242	Livestock Breeding and Nutrition	1+1=2
	AHDS-353	Technology of milk and milk Products	1+1=2
<b>Total</b>			<b>3+3=6</b>
<b>Agricultural Entomology</b>	ENT-231	Insect Morphology and Systematic	2+1=3
	ENT-242	Insect Ecology, Integrated Pest Management and Beneficial Insects	2+1=3
	ENT-353	Crop Pests and Stored Grain Pests and their Management	2+1=3
<b>Total</b>			<b>6+3=9</b>
<b>Grand Total</b>			<b>55+34=89</b>

**Section “C” : Syllabus of following courses of B.Sc. (Hort.) for 3% weightage**

**Division of Fruit Science**

Sr. No.	Course No.	Course title	Credits
1	H/FS-231	Tropical and Subtropical Fruits	2+1
2	H/FS-242	Breeding of Fruit and Plantation Crops	2+1
3	H/FS-243	Arid Fruit Crops	1+1
4	H/FS-354	Temperate and Plantation Fruit Crops	2+1
5	H/HORT-111	Fundamentals of Horticulture	2+1
6	H/HORT-122	Plant Propagation and Nursery Management	2+1
<b>Total</b>			<b>11+6=17</b>

**Division of Vegetable Science**

Sr. No.	Course No.	Course title	Credits
1	H/Vs-231	Tropical and Subtropical Vegetable Crops	2+1
2	H/Vs-242	Temperate Vegetable Crops	1+1
3	H/Vs-353	Breeding of Vegetable Crops	2+1
4	H/Vs-364	Seed Production of Vegetable Crops	2+1
5	H/Vs-365	Protected Cultivation of Vegetable Crops	1+1
6	H/SPICON-231	Spices and Condiments	1+1
<b>Total</b>			<b>9+6=15</b>

**Division of Floriculture and Landscaping**

Sr. No.	Course No.	Course title	Credits
1	H/FL-111	Ornamental Horticulture	1+1
2	H/FL-232	Landscape Gardening	1+1
3	H/FL-243	Commercial Floriculture	2+1
4	H/FL-354	Protected Cultivation of Flower Crops	1+1
5	H/FL-365	Breeding and Seed Production of Ornamental Plants	1+1
<b>Total</b>			<b>6+5=11</b>

**Division of Post Harvest Technology**

Sr. No.	Course No.	Course title	Credits
1	H/PHT-231	Post Harvest Management of Horticultural Crops	2+1
2	H/PHT-362	Processing and Value Addition of Horticultural Crops	1+2
<b>Total</b>			<b>3+3=6</b>

**Division of Plant Protection**

Sr. No.	Course No.	Course title	Credits
1	H/PATH-121	Fundamentals of Plant Pathology	1+1
2	H/PATH-232	Diseases of Vegetable, Ornamental and Spice Crops	2+1
3	H/PATH-242	Diseases of Fruits, Plantation, Aromatic and Medicinal Crops	2+1
4	H/MIBO-111	Introductory Microbiology	1+1
5	H/MIBO-362	Applied Microbiology	0+1
6	H/ENTO-121	Fundamentals of Entomology	1+1
7	H/ENTO-352	Insect Pest Management of Fruit, Plantation, Medicinal and Aromatic Plants	2+1
8	H/ENTO-353	Insect Pest Management of Vegetable, Ornamental and Spice Crops	2+1
9	H/ENTO-364	Nematode Pests of Horticultural Crops and their Management	1+1
<b>Total</b>			<b>12+9=21</b>

**Division of Natural Resource Management**

Sr. No.	Course No.	Course title	Credits
1	H/SSAC-111	Fundamentals of Soil Science	1+1
2	H/SSAC-232	Fundamentals of Bio-chemistry	1+1
3	H/SSAC-122	Soil Fertility and Nutrient Management	2+1
4	H/BOT-354	Environmental Science and Agro-ecology	1+1
5	H/AGRO-121	Water Management of Horticultural Crops	1+1
6	H/AGRO-232	Weed Management in Horticultural Crops	1+1
7	H/AGRO-243	Organic Farming	1+1
8	H/AGROMET-111	Agriculture Meteorology	1+1
9	H/ENGG-351	Farm Power and Machinery	1+1
<b>Total</b>			<b>10+9=19</b>

**Division of Basic Science & Humanities**

Sr. No.	Course No.	Course title	Credits
1	H/HORT-123	Growth and Development of Horticultural Crops	1+1
2	H/HORT-354	Introductory Agroforestry and Horti-silvipasture	1+1
3	H/BIOT-361	Fundamentals of Bio-technology	1+1
4	H/BOT-111	Principles of Genetics and Cytogenetics	2+1
5	H/BOT-122	Principles of Plant Breeding	1+1
6	H/BOT-123	Introductory Plant Physiology	1+1
7	H/AROMED-241	Aromatic and Medicinal Crops	1+1
<b>Total</b>			<b>8+7=15</b>
<b>Grand Total</b>			<b>59+45=104</b>

**Section “D ” : Syllabus of following courses of B.Sc. Forestry for 3 % weightage**

<b>Sr. No.</b>	<b>Name of department/ Discipline</b>	<b>No. of Credits</b>
<b>1.</b>	<b>Agricultural Sciences</b>	<b>16</b>
	<b>Agricultural Botany</b>	<b>7</b>
	F/BOT – 111 Principles of Cytology and Genetics	2(1+1)
	• F/BOT – 112 Principles of Plant Physiology	2(1+1)
	• F/ BOT – 113 Introductory Botany	3(2+1)
	<b>Soil Science</b>	<b>4</b>
	F/SSAC – 111 Fundamentals of Geology and Soil Science	2(1+1)
	F/SSAC– 232 Fundamentals of Biochemistry	2(1+1)
	<b>Horticulture</b>	<b>3</b>
	F/HORT – 111 Fundamentals of Horticulture	3(2+1)
	<b>Biotechnology</b>	<b>2</b>
	F/ BIOT-361 Fundamentals of Biotechnology	2 (1+1)
<b>2.</b>	<b>Forest Biology and Tree Improvement</b>	<b>23</b>
	FBT – 121 Dendrology	3 (2+1)
	FBT – 122 Forest Ecology, Biodiversity and Conservation	3(2+1)
	FBT – 123 Tree Physiology	2(1+1)
	FBT – 234 Principles of Tree Improvement	3 (2+1)
	FBT – 235 Tree Seed Technology	2 (1+1)
	FBT – 246 Fundamentals of Wildlife	2 (2+0)
	FBT – 247 Forest Pathology	3 (2+1)
	FBT – 358 Wild Life Management	2 (1+1)
	FBT – 369 Forest Entomology and Nematology	3(2+1)
<b>3.</b>	<b>Silviculture and Agroforestry</b>	<b>24</b>
	SAF – 121 Principle and Practices of Silviculture	4(3+1)
	SAF – 232 Forest Mensuration	3(2+1)

	SAF – 233 Nursery Management	2(1+1)
	SAF – 244 Silviculture of Indian Trees	3 (2+1)
	SAF – 245 World Forestry Systems	2(2+0)
	SAF – 356 Silvicultural Systems	2(2+0)
	SAF – 357 Plantation Forestry and Wasteland Development	2(1+1)
	SAF – 358 Environmental Science	3 (2+1)
	SAF – 369 Agro forestry System and Management	3 (2+1)
<b>4.</b>	<b>Forest Product Utilization</b>	<b>18</b>
	FPU – 121 Ethnobotany	3 (2+1)
	FPU – 232 Wood Anatomy	2 (1+1)
	FPU – 233 Logging and Ergonomics	2 (1+1)
	FPU – 244 Wood Science and Technology	3 (2+1)
	FPU – 245 Wood Products and Utilization	2 (1+1)
	FPU – 356 Medicinal and Aromatic Plants	3 (2+1)
	FPU – 367 Utilization of Non-Timber Forest Products	3 (2+1)
<b>5.</b>	<b>Natural Resource Management</b>	<b>23</b>
	NRM – 121 Chemistry and Fertility of Forest Soils	3 (2+1)
	NRM – 232 Forest Engineering and Survey	2 (1+1)
	NRM – 233 Soil Survey and Remote sensing	3 (2+1)
	NRM – 244 Forest Tribology and Anthropology	2 (2+0)
	NRM – 355 Rangeland Management	3 (2+1)
	NRM – 356 Principles of Forest Economics, Project Planning and Evaluation	2 (1+1)
	NRM – 367 Forest Management, Policy and Legislation	3 (2+1)
	NRM – 368 Forest Business Management	2 (1+1)
	NRM -369 Marketing and Trade of Forest Produce	3 (2+1)
	<b>Grand Total</b>	<b>67+37=104</b>

**Section “E”: Syllabus of following courses of B.Tech. (Food Science) for 3% weightage  
Department of Food Science and Technology**

Sr. No.	Course No.	Course Title	Credits
1	FST-111	Principles of Food Processing	2+1=3
2	FST-112	Food Production Trends and Programs	2+0=2
3	FST-123	Post harvest Management of Fruit and Vegetable	2+1=3
4	FST-124	Cereal Processing	2+1=3
5	FST-235	Legume and Oilseed Technology	2+1=3
6	FST-236	Meat, Poultry and Fish Technology	2+1=3
7	FST-237	Wheat Milling and Baking Technology	2+1=3
8	FST-238	Confectionery Technology	1+1=2
9	FST-249	Fruit and Vegetable Processing	2+1=3
10	FST-2410	Food Quality	1+1=2
11	FST-2411	Processing of Milk and Milk Products	1+1=2
12	FST-2412	Spice and Flavor Technology	2+1=3
13	FST-3513	Food Industry By-Products and Waste Utilization	1+1=2
14	FST-3514	Carbonated Beverage Technology	1+1=2
15	FST-3615	Product Development and Formulation	1+1=2
16	FST-3616	Speciality Foods	2+1=3
17	FST-3617	Extrusion Technology	1+1=2
18	FST-3618	Quality Assurance and Certification	2+1=3
<b>Total</b>			<b>29+17= 46</b>

**Department of Food Chemistry and Nutrition**

Sr. No.	Course No.	Course Title	Credits
1	FCN-111	Bio-chemistry	2+1=3
2	FCN-112	Food Chemistry-I	2+1=3
3	FCN-123	Food Chemistry –II	2+1=3
4	FCN-124	Human Nutrition	2+1=3
5	FCN-235	Techniques in Food Analysis	1+2=3
6	FCN-246	Food Additives	2+1=3
7	FCN-247	Environmental Science	2+1=3
<b>Total credits</b>			<b>13+8= 21</b>

**Department of Food and Industrial Microbiology**

Sr. No.	Course No.	Course Title	Credits
1	FIM-111	Fundamentals of Microbiology	2+1=3
2	FIM-122	Food Microbiology	2+1=3
3	FIM-233	Fermentation and Industrial Microbiology	2+1=3
4	FIM-244	Food Safety and Microbial Standards	2+1=3
5	FIM-355	Food Bio-technology	2+1=3
6	FIM-366	Food Hygiene and Sanitation	2+1=3
<b>Total credits</b>			<b>12+6= 18</b>



**Department of Food Trade and Business Management**

Sr. No.	Course No.	Course Title	Credits
1	FTBM-351	Co-operation, Marketing and Finance	2+1=3
2	FTBM-352	Business Management and International Trade	2+0=2
	FTBM-363	Entrepreneurship Development and Communication Skills	1+1=2
4	FTBM-364	Food Laws and Regulations	2+1=3
		<b>Total credits</b>	<b>7+3=10</b>
		<b>Grand Total</b>	<b>61+34=95</b>

**Section “F”: Syllabus of following courses of B.F.Sc. for 3 % weightage**

**AQUACULTURE**

PRINCIPLES OF AQUACULTURE  
 FRESHWATER AQUACULTURE  
 FISH NUTRITION AND FEED TECHNOLOGY  
 CULTURE OF FISH FOOD ORGANISMS  
 ORNAMENTAL FISH PRODUCTION AND MANAGEMENT  
 COASTAL AQUACULTURE AND MARICULTURE  
 FINFISH BREEDING AND HATCHERY MANAGEMENT SHELLFISH  
 BREEDING AND HATCHERY MANAGEMENT  
 DISEASES AND MANAGEMENT  
 BIOTECHNOLOGY AND BIOINFORMATICS  
 GENETICS AND BREEDING

**FISHERIES BIOLOGY**

TAXONOMY OF FINFISH  
 ANATOMY AND BIOLOGY OF FINFISH  
 TAXONOMY OF SHELLFISH  
 ANATOMY AND BIOLOGY OF SHELLFISH  
 INLAND FISHERIES  
 PHYSIOLOGY OF FINFISHES AND SHELLFISHES  
 MARINE FISHERIES  
 FISH STOCK ASSESSMENT AND MANAGEMENT

**Fisheries Technology**

PRINCIPLES OF BIOCHEMISTRY  
 FUNDAMENTALS OF MICROBIOLOGY  
 FOOD CHEMISTRY AND FISH IN NUTRITION  
 BIOCHEMICAL TECHNIQUES AND INSTRUMENTATION  
 FREEZING TECHNOLOGY  
 THERMAL PROCESSING AND PACKAGING TECHNOLOGY  
 FISH PRODUCT AND BY PRODUCT TECHNOLOGY  
 FISHERY MICROBIOLOGY AND QUALITY ASSURANCE

**Annexure: "G"****Syllabus for CET in Agricultural Engineering Stream for 100 %****1) Basic Science and Computer Technology**

<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>
BS-MATH-111	Engineering Mathematics-I	3(2+1)
BS-PHY-112	Engineering Physics	3(2+1)
BS-CT-113	Computer Programming and Data Structures	3(1+2)
BS-MATH-124	Engineering Mathematics-II	3(2+1)
BS-CT-125	Database Management and Internet Applications	2(0+2)
BS-MATH-236	Engineering Mathematics-III	3(2+1)
BS-STAT-237	Statistical Methods	2(1+1)
	<b>Total</b>	<b>19(10+9)</b>

**2) Agricultural Science**

<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>
AG-111	Agronomy	2(1+1)
AG-112	Horticulture	2(1+1)
AG-113	Animal Sciences and Dairy Science	2(1+1)
AG-124	Soil Science	2(1+1)
AG-245	Agribusiness Management and Trade	2(2+0)
AG-366	Entrepreneurship Development and Communication Skills	2(1+1)
	<b>Total</b>	<b>12(7+5)</b>

**3) Department of Farm Machinery and Power**

<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>
FMP-111	Workshop Practice	2(0+2)
FMP-112	Engineering Drawing	2(0+2)
FMP-123	Workshop Technology	2(1+1)
FMP-124	Machine Drawing and Computer Graphics	2(0+2)
FMP-235	Theory of Machines	3(2+1)
FMP-236	Farm Power	2(1+1)
FMP-247	Farm Machinery and Equipment-I	2(1+1)
FMP-248	Tractor System and Control	2(1+1)
FMP-359	Farm Machinery and Equipment-II	2(1+1)
FMP-3610	Machine Design	3(2+1)
FMP-3611	Field Operation and Maintenance of Tractor and Farm Machinery	1(0+1)
	<b>Total</b>	<b>23(9+14)</b>

**4) Department of Soil and Water Conservation Engineering**

<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>
SWCE-121	Surveying and Leveling	3(1+2)
SWCE-232	Soil Mechanics	3(2+1)
SWCE-233	Watershed Hydrology	3(2+1)
SWCE-244	Soil and Water Conservation Engineering	3(2+1)
SWCE-355	Soil and Water Conservation Structures	3(2+1)
SWCE-366	Watershed Planning and Management	3(2+1)
	<b>Total</b>	<b>18(11+7)</b>

**5) Department of Irrigation and Drainage Engineering**

<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>
IDE-231	Fluid Mechanics	3(2+1)
IDE-242	Irrigation Engineering	3(2+1)
IDE-353	Groundwater, Wells and Pumps	3(2+1)
IDE-354	Drainage Engineering	3(2+1)
IDE-365	Advanced Irrigation System Design	2(1+1)
IDE-366	Minor Irrigation and Command Area Development	3(2+1)
	<b>Total</b>	<b>17(11+6)</b>

**6) Department of Agricultural Process Engineering**

<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>
APE-121	Thermodynamics	3(2+1)
APE-232	Engineering Properties of Biological Materials and Food Quality	2(1+1)
APE-243	Heat and Mass Transfer	2(1+1)
APE-244	Crop Process Engineering	3(2+1)
APE-355	Dairy and Food Engineering	3(2+1)
APE-356	Drying of Farm Crop	2(1+1)
APE-357	Storage Engineering	2(1+1)
APE-368	Refrigeration and Air Conditioning	2(1+1)
	<b>Total</b>	<b>19(11+8)</b>

**7) Department of Farm Structure**

<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>
FS-121	Engineering Mechanics	3(2+1)
FS-242	Building Materials	2(1+1)
FS-353	Strength of Material	3(2+1)
FS-354	Agricultural Structures and Environmental Control	3(2+1)
FS-365	Design of Structures	3(2+1)
	<b>Total</b>	<b>14(9+5)</b>

**8) Department of Electrical and Other Energy Sources**

<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>
EOES-111	Engineering Chemistry	2(1+1)
EOES-122	Applied Electronics and Instrumentation	3(2+1)
EOES-233	Electrical Circuits	3(2+1)
EOES-244	Electrical Machines and Power Utilization	3(2+1)
EOES-365	Renewable Energy Sources	3(2+1)
	<b>Total</b>	<b>14(9+5)</b>
	<b>Total credit</b>	<b>136(77+59)</b>

**Annexure: "H"****Syllabus for CET in B.Tech Food Science Stream for 100 %****Department of Food Science and Technology**

<b>Sr. No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Credits</b>
1	FST-111	Principles of Food Processing	2+1=3
2	FST-112	Food Production Trends and Programs	2+0=2
3	FST-123	Post harvest Management of Fruit and Vegetable	2+1=3
4	FST-124	Cereal Processing	2+1=3
5	FST-235	Legume and Oilseed Technology	2+1=3
6	FST-236	Meat, Poultry and Fish Technology	2+1=3
7	FST-237	Wheat Milling and Baking Technology	2+1=3
8	FST-238	Confectionery Technology	1+1=2
9	FST-249	Fruit and Vegetable Processing	2+1=3
10	FST-2410	Food Quality	1+1=2
11	FST-2411	Processing of Milk and Milk Products	1+1=2
12	FST-2412	Spice and Flavor Technology	2+1=3
13	FST-3513	Food Industry By-Products and Waste Utilization	1+1=2
14	FST-3514	Carbonated Beverage Technology	1+1=2
15	FST-3615	Product Development and Formulation	1+1=2
16	FST-3616	Specialty Foods	2+1=3
17	FST-3617	Extrusion Technology	1+1=2
18	FST-3618	Quality Assurance and Certification	2+1=3
<b>Total</b>			<b>29+17= 46</b>

**Department of Food Chemistry and Nutrition**

<b>Sr. No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Credits</b>
1	FCN-111	Bio-chemistry	2+1=3
2	FCN-112	Food Chemistry-I	2+1=3
3	FCN-123	Food Chemistry –II	2+1=3
4	FCN-124	Human Nutrition	2+1=3
5	FCN-235	Techniques in Food Analysis	1+2=3
6	FCN-246	Food Additives	2+1=3
7	FCN-247	Environmental Science	2+1=3
<b>Total credits</b>			<b>13+8= 21</b>

**Department of Food and Industrial Microbiology**

<b>Sr. No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Credits</b>
1	FIM-111	Fundamentals of Microbiology	2+1=3
2	FIM-122	Food Microbiology	2+1=3
3	FIM-233	Fermentation and Industrial Microbiology	2+1=3

4	FIM-244	Food Safety and Microbial Standards	2+1=3
5	FIM-355	Food Bio-technology	2+1=3
6	FIM-366	Food Hygiene and Sanitation	2+1=3
		<b>Total credits</b>	<b>12+6= 18</b>

### Department of Food Engineering

Sr. No.	Course No.	Course Title	Credits
1	FE-111	Engineering Drawing	0+1=1
2	FE-112	Fluid Mechanics and Hydraulics	1+1=2
3	FE-123	Energy Generation and Conservation	2+1=3
4	FE-124	Heat and Mass Transfer	1+1=2
5	FE-235	Food Processing Equipments-I	2+1=3
6	FE-236	Food Packaging	2+1=3
7	FE-247	Food Processing Equipments-II	2+1=3
8	FE-358	Refrigeration Engineering and Cold Chain	2+1=3
9	FE-359	Bio-Chemical Engineering	2+1=3
10	FE-3510	Instrumentation and Process Control	2+1=3
11	FE-3611	Food Plant Design and Layout	1+2=3
		<b>Total credits</b>	<b>17+12=29</b>

### Department of Food Trade and Business Management

Sr. No.	Course No.	Course Title	Credits
1	FTBM-351	Co-operation, Marketing and Finance	2+1=3
2	FTBM-352	Business Management and International Trade	2+0=2
3	FTBM-363	Entrepreneurship Development and Communication Skills	1+1=2
4	FTBM-364	Food Laws and Regulations	2+1=3
		<b>Total credits</b>	<b>7+3=10</b>
		<b>Grand Total</b>	<b>78+46=124</b>

**Annexure: ‘I’****Section ‘A’:Syllabus for CET in B.B.M. (Agri.) Stream for 80 %****1. Departments of Agricultural and Allied Sciences**

<b>Sr. No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Credits</b>
1	AGRO-111	Agro-Techniques of Principal Crops and Agro-Meteorology	3=2+1
2	AGRO-122	Farming Systems and Sustainable Agriculture	2=2+0
3	AGRO-233	Irrigation Water Management	2=1+1
4	HORT- 111	Production Management of Important Fruit Crops	2=1+1
5	HORT-232	Production Management of Important Vegetable and Floricultural Crops	2=1+1
6	HORT-243	Post Harvest Technology of Horticultural crops	3=2+1
7	BOT-111	Principles of Plant Biotechnology	2=1+1
8	BOT-122	Environmental Science	2=1+1
9	SSAC-121	Soil Fertility, Fertilizers and Nutrient Management	2=1+1
10	SSAC-232	Soil, Water and Plant analysis	2=0+2
11	ASDS- 231	Animal Production Management	2=1+1
12	ASDS-242	Value Addition in Animal Products	2=1+1
13	ENGG-121	Farm Structures and Green House technology	2=1+1
14	ENGG-232	Post-Harvest Technology of Cereals, Pulses, Oilseeds and Cash crops	2=1+1
15	ENT- 121	Integrated Pest Management	2=1+1
16	PATH-231	Integrated Disease Management	2=1+1
17	PATH-362	Bio-fertilizers and Mushroom Production	2=1+1
18	EXTN-121	Entrepreneurship and Personality Development	2=2+0
19	EXTN-232	Communication Skills and Market-Led Extension for Business Management	2=1+1
20	EXTN-243	Consumers Psychology in Business Management	2=1+1
21	EXTN-354	Information Technology in Agri- Business	2=1+1
22	EXTN-365	Organizational Behaviour for Business Management	2=2+0
23	COMP- 111	Introduction to Computer Applications	2=1+1
24	STAT-241	Business Statistics	3=2+1
		<b>Total</b>	<b>51=29+22</b>

**2. Department of Agricultural Economics**

<b>Sr. No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Credits</b>
1	ECON- 111	Agricultural Economics and Natural Resource Economics	3=2+1
3	ECON- 112	Structure and Dynamics of Indian Agriculture	2=2+0
2	ECON-123	Farm Business Management	2=1+1
4	ECON-124	Money, Banking and International Trade	2=1+1

5	ECON-235	Agril. Co-operation, Institutions and Management	3=2+1
7	ECON- 246	Indian Agricultural Policies	2=2+0
6	ECON-357	Input-Output Measurement Techniques	2=1+1
8	ECON- 358	Research Methods in Social Sciences	2=1+1
9	ECON-369	Planning, Formulation and Evaluation of Business Projects	3=1+2
10	ECON-3610	Financial Management in Agri- Business	3=2+1
		<b>Total</b>	<b>24 = 15 + 9</b>

### 3. Department of Agricultural Marketing

Sr. No.	Course No.	Course Title	Credits
1	MKT-121	Introduction to Agricultural Marketing	2=1+1
3	MKT-232	Marketing Institutions and Organizations	3=2+1
2	MKT-233	Input Marketing Management	3=2+1
4	MKT-244	Rural Marketing and Market Infrastructure	3=2+1
5	MKT-245	Retail Marketing	3=2+1
7	MKT-356	Trading of Agricultural Commodities-I	2=1+1
6	MKT-357	Market and Trade Acts	2=2+0
8	MKT-368	Trading of Agricultural Commodities-II	2=1+1
		<b>Total</b>	<b>20 = 13 +7</b>

### 4. Department of Agri-Business Management

Sr. No.	Course No.	Course Title	Credits
1	ABM- 111	Introduction to Agri-Business Management	2=1+1
2	ABM-122	Agro-based Industrialization	2=2+0
3	ABM-233	Office Procedures for Agri-Business	1=0+1
4	ABM-244	Disaster Management in Agriculture	2=1+1
5	ABM-355	Inventory and Risk Management	2=1+1
6	ABM-356	Agro-tourism	2=1+1
7	ABM-357	Production Management, Planning and Control	2=1+1
8	ABM- 358	Agro-Processing Managements	2=1+1
9	ABM-359	Marketing and Management Policies	2=1+1
10	ABM-3610	Agri-Business Operations, HRD and Strategic Management	2=2+0
11	ABM-3611	Product Promotion Methods	2=1+1
12	ABM-3612	Managerial Accounting	2=1+1
13	ABM-3613	Market Survey and Price Analysis	2=0+2
		<b>Total</b>	<b>25=13+12</b>
		<b>GRANT TOTAL</b>	<b>120 =70 +50</b>



**Syllabus for CET B.B.M. (Agri.) for 20%**

**SECTION “B”: Syllabus of following courses of B.Tech. (Food Technology) for 2.50% weightage**

**1. Department of Food Science and Technology**

<b>Sr. No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Credits</b>
1	FST-111	Principles of Food Processing	2+1=3
2	FST-112	Food Production Trends and Programs	2+0=2
3	FST-123	Postharvest Management of Fruit and Vegetable	2+1=3
4	FST-124	Cereal Processing	2+1=3
5	FST-235	Legume and Oilseed Technology	2+1=3
6	FST-236	Meat, Poultry and Fish Technology	2+1=3
7	FST-237	Wheat Milling and Baking Technology	2+1=3
8	FST-238	Confectionery Technology	1+1=2
9	FST-249	Fruit and Vegetable Processing	2+1=3
10	FST-2410	Food Quality	1+1=2
11	FST-2411	Processing of Milk and Milk Products	1+1=2
12	FST-2412	Spice and Flavour Technology	2+1=3
13	FST-3513	Food Industry By-Products and Waste Utilization	1+1=2
14	FST-3514	Carbonated Beverage Technology	1+1=2
15	FST-3615	Product Development and Formulation	1+1=2
16	FST-3616	Speciality Foods	2+1=3
17	FST-3617	Extrusion Technology	1+1=2
18	FST-3618	Quality Assurance and Certification	2+1=3
		<b>Total</b>	<b>29+17= 46</b>

**2. Department of Food Chemistry and Nutrition**

<b>Sr. No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Credits</b>
1	FCN-111	Bio-chemistry	2+1=3
2	FCN-112	Food Chemistry-I	2+1=3
3	FCN-123	Food Chemistry –II	2+1=3
4	FCN-124	Human Nutrition	2+1=3
5	FCN-235	Techniques in Food Analysis	1+2=3
6	FCN-246	Food Additives	2+1=3
7	FCN-247	Environmental Science	2+1=3
		<b>Total</b>	<b>13+8 = 21</b>

**3. Department of Food and Industrial Microbiology**

<b>Sr. No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Credits</b>
1	FIM-111	Fundamentals of Microbiology	2+1=3
2	FIM-122	Food Microbiology	2+1=3
3	FIM-233	Fermentation and Industrial Microbiology	2+1=3
4	FIM-244	Food Safety and Microbial Standards	2+1=3

5	FIM-355	Food Bio-technology	2+1=3
6	FIM-366	Food Hygiene and Sanitation	2+1=3
		<b>Total</b>	<b>12+6= 18</b>

#### 4. Department of Food Engineering

Sr. No.	Course No.	Course Title	Credits
1	FE-111	Engineering Drawing	0+1=1
2	FE-112	Fluid Mechanics and Hydraulics	1+1=2
3	FE-123	Energy Generation and Conservation	2+1=3
4	FE-124	Heat and Mass Transfer	1+1=2
5	FE-235	Food Processing Equipments-I	2+1=3
6	FE-236	Food Packaging	2+1=3
7	FE-247	Food Processing Equipments-II	2+1=3
8	FE-358	Refrigeration Engineering and Cold Chain	2+1=3
9	FE-359	Bio-Chemical Engineering	2+1=3
10	FE-3510	Instrumentation and Process Control	2+1=3
11	FE-3511	Food Plant Design and Layout	1+2=3
		<b>Total</b>	<b>17+12=29</b>

#### 5. Department of Food Trade and Business Management

Sr. No.	Course No.	Course Title	Credits
1	FTBM-351	Co-operation, Marketing and Finance	2+1=3
2	FTBM-352	Business Management and International Trade	2+0=2
3	FTBM-363	Entrepreneurship Development and Communication Skills	1+1=2
4	FTBM-364	Food Laws and Regulations	2+1=3
5	FTBM-365	Seminar	0+1=1
		<b>Total</b>	<b>7+4=11</b>
		<b>GRAND TOTAL</b>	<b>78+47 =125</b>

#### SECTION "C": Syllabus of following courses of B.F.Sc. for 2.50% weightage

Sr. No.	Course No.	Name of the Department	Credits
<b>1. DEPARTMENT : AQUACULTURE</b>			
1	AQ.CUL. 111	Principles of Aquaculture	1+1=2
2	AQ.CUL. 122	Freshwater Aquaculture	2+1=3
3	AQ.CUL. 213	Fish Nutrition and Feed Technology	2+1=3
4	AQ.CUL. 214	Culture of fish food organisms	1+1=2
5	AQ.CUL. 225	Ornamental Fish Production and Management	1+1=2
6	AQ.CUL. 226	Coastal Aquaculture and Mari culture	2+1=3

7	AQ.CUL. 317	Finfish Breeding and Hatchery Management	2+1=3
8	AQ.CUL. 318	Shellfish Breeding and Hatchery Management	2+1=3
9	AQ.CUL. 319	Diseases and Management	2+2=4
10	AQ.CUL. 321	Biotechnology and Bio-informatics	1+1=2
11	AQ.CUL. 322	Generics and Breeding	1+1=2
		<b>Total</b>	<b>17 +12 =29</b>

<b>2. DEPARTMENT : FISHERIES BIOLOGY</b>			
1	F.BIOL. 111	Taxonomy of Finfish	1+2=3
2	F.BIOL.112	Anatomy and Biology of Finfish	2+1=3
3	F.BIOL.123	Taxonomy of Shellfish	1+2=3
4	F.BIOL.124	Anatomy and Biology of Shellfish	2+1=3
5	F.BIOL.215	Inland Fisheries	2+1=3
6	F.BIOL.226	Physiology of Finishes and Shellfishes	2+1=3
7	F.BIOL.317	Marine Fisheries	2+1=3
8	F.BIOL.328	Fish Stock Assessment and Management	2+1=3
		<b>Total</b>	<b>14+10 =24</b>

<b>3. DEPARTMENT : FISHERIES HYDROGRAPH</b>			
1	F.HY.111	Meteorology and Geography	1+1=2
2	F.HY.112	Techniques of Soil Analysis	1+1=2
3	F.HY.113	Limnology	2+1=3
4	F.HY.124	Physical Oceanography	2+1=3
5	F.HY.125	Chemical Oceanography	1+1=2
6	F.HY.226	Marine biology	1+1=2
7	F.HY.317	Aquatic Biodiversity	2+1=3
8	F.HY.328	Aquatic Pollution	1+1=2
9	F.HY.329	Coastal Zone Management	1+0=1
		<b>Total</b>	<b>12+8=20</b>

<b>4. DEPARTMENT : FISH PROCESSING TECHNOLOGY AND MICROBIOLOGY</b>			
1	F.TECH.111	Principles of Biochemistry	1+1=2
2	F.TECH.112	Fundamentals of Microbiology	1+1=2
3	F.TECH.123	Food Chemistry and Fish in Nutrition	2+1=3
4	F.TECH.124	Biochemical Techniques and Instrumentation	1+1=2
5	F.TECH.215	Freezing Technology	2+1=3
6	F.TECH.226	Thermal Processing and Packaging Technology	2+1=3
7	F.TECH.317	Fish product and by product technology	2+2=4
8	F.TECH.328	Fishery Microbiology and Quality Assurance	2+2=4
		<b>Total</b>	<b>13+10=23</b>

<b>5. DEPARTMENT: FISH ENGINEERING</b>			
1	F.ENGG. 121	Fishing Craft Technology	1+1=2
2	F.ENGG. 212	Fishing Gear Technology	1+1=2
3	F.ENGG. 213	Navigation and Seamanship	1+1=2
4	F.ENGG. 224	Fishing Technology	1+1=2

5	F.ENGG. 225	Aquaculture Engineering	1+1=2
6	F.ENGG. 316	Refrigeration and Equipment Engineering	1+1=2
		<b>Total</b>	<b>6+6=12</b>

<b>6. DEPARTMENT : FISHERIES RESOURCES, ECONOMICS, STATISTICS AND EXTENSION</b>			
1	F.RESE. 111	Information and Communication Technology	1+1=2
2	F.RESE.112	Elements of Statistics	1+1=2
3	F.RESE.123	Business Organization and Personnel Management	1+0=1
4	F.RESE.214	Fisheries Economics	2+1=3
5	F.RESE.215	Rural Sociology and Extension Education	1+1=2
6	F.RESE.216	Disaster Management	1+1=2
7	F.RESE.227	Statistical Methods	1+1=2
8	F.RESE.228	Extension Programme Planning	2+1=3
9	F.RESE.321	Marketing Management	1+1=2
10	F.RESE.322	Entrepreneurship Development and Finance	1+2=3
11	F.RESE.329	Fisheries Administration and Legislation	2+0=2
		<b>Total</b>	<b>14+10=24</b>

**SECTION “D”:** Syllabus of following courses of B.Sc. (Home Science) for 2.50% weightage

<b>Sr. No.</b>	<b>Course No.</b>	<b>Course Title</b>	<b>Credits</b>
1	FSN- 111	Elements of Food science	2+1
2	FRM- 111	Management of Family Resource	2+0
3	TAD- 111	Fundamentals of clothing construction	1+2
4	HECM- 111	Home Science Extension and Rural Development	2+1
5	HDFS-111	Life Span Development	2+1
6	FSN-122	Introduction to Human Nutrition	2+1
7	HDFS-122	Early Childhood Development, Care and Education	2+1
8	TAD-122	Textile Science and Care	2+1
9	FRM-122	family economics	1+1
10	FRM-123	Consumer Education	1+1
11	HECM- 122	Communication and Instructional Technology	1+2
12	FSN -233	Normal and Therapeutic Nutrition	2+1
13	FRM- 234	Housing and space Management	1+2
14	HDFS- 233	Children with Developmental Challenges	2+1
15	HECM- 233	Diffusion and adoption of Home stead technology	2+1
16	TAD- 233	Apparel Designing and Construction	1+2
17	FSN- 244	Food preservation and Storage	1+2
18	FRM- 245	Fundamentals of Art and design	1+2
19	TAD- 244	Fundamentals of Textile Designing	2+1
20	HDFS- 244	Dynamics of Marriage and Family	2+1
21	HECM- 244	Programme Development	1+2
22	FSN ND- 351*	Food Science	2+1

23	FSN ND- 361*	Advanced Human Nutrition	3+0
24	FRM ID- 351*	Space Designing- (I (Residential))	1+2
25	FRM ID-361*	Interior Designing and Decoration	1+2
26	HDFS MEC-362*	Organization and Management Of ECCD Programmers	2+3
27	TAD TD- 353*	Principles of Design Application	1+3
28	HEIT CM- 353*	Training and Human Resource Development	1+3
<b>GRAND TOTAL</b>			<b>85</b>

**SECTION ‘‘E’’: Syllabus of following courses of B.Tech. (Agril. Engg.) for 2.50% weightage**

**1. Basic Science and Computer Technology**

Sr. No.	Course No.	Course Title	Credits
1	BS-MATH-111	Engineering Mathematics-I	3=2+1
2	BS-PHY-112	Engineering Physics	3=2+1
3	BS-CT-113	Computer Programming and Data Structures	3=1+2
4	BS-MATH-124	Engineering Mathematics-II	3=2+1
5	BS-CT-125	Database Management and Internet Applications	2=0+2
6	PYE-121	Physical Education (Non Credit)	--
7	BS-MATH-236	Engineering Mathematics-III	3=2+1
8	BS-STAT-237	Statistical Methods	2=1+1
		<b>Total</b>	<b>19=10+9</b>

**2. Department of Agricultural Science**

Sr. No.	Course No.	Course Title	Credits
1	AG-111	Agronomy	2=1+1
2	AG-112	Horticulture	2=1+1
3	AG-113	Animal Sciences and Dairy Science	2=1+1
4	AG-124	Soil Science	2=1+1
5	AG-245	Agribusiness Management and Trade	2=2+0
6	AG-366	Entrepreneurship Development and Communication Skills	2=1+1
		<b>Total</b>	<b>12=7+5</b>

**3. Department of Farm Machinery and Power**

Sr. No.	Course No.	Course Title	Credits
1	FMP-111	Workshop Practice	2=0+2
2	FMP-112	Engineering Drawing	2=0+2
3	FMP-123	Workshop Technology	2=1+1

4	FMP-124	Machine Drawing and Computer Graphics	2=0+2
5	FMP-235	Theory of Machines	3=2+1
6	FMP-236	Farm Power	2=1+1
7	FMP-247	Farm Machinery and Equipment-I	2=1+1
8	FMP-248	Tractor System and Control	2=1+1
9	FMP-359	Farm Machinery and Equipment-II	2=1+1
10	FMP-3610	Machine Design	3=2+1
11	FMP-3611	Field Operation and Maintenance of Tractor and Farm Machinery	1=0+1
		<b>Total</b>	<b>23=9+14</b>

#### 4. Department of Soil and Water Conservation Engineering

Sr. No.	Course No.	Course Title	Credits
1	SWCE-121	Surveying and Levelling	3=1+2
2	SWCE-232	Soil Mechanics	3=2+1
3	SWCE-233	Watershed Hydrology	3=2+1
4	SWCE-244	Soil and Water Conservation Engineering	3=2+1
5	SWCE-355	Soil and Water Conservation Structures	3=2+1
6	SWCE-366	Watershed Planning and Management	3=2+1
		<b>Total</b>	<b>18=11+7</b>

#### 5. Department of Irrigation and Drainage Engineering

Sr. No.	Course No.	Course Title	Credits
1	IDE-231	Fluid Mechanics	3=2+1
2	IDE-242	Irrigation Engineering	3=2+1
3	IDE-353	Groundwater, Wells and Pumps	3=2+1
4	IDE-354	Drainage Engineering	3=2+1
5	IDE-365	Advanced Irrigation System Design	2=1+1
6	IDE-366	Minor Irrigation and Command Area Development	3=2+1
		<b>Total</b>	<b>17=11+6</b>

#### 6. Department of Agricultural Process Engineering

Sr. No.	Course No.	Course Title	Credits
1	APE-121	Thermodynamics	3(2+1)
2	APE-232	Engineering Properties of Biological Materials and Food Quality	2(1+1)
3	APE-243	Heat and Mass Transfer	2(1+1)
4	APE-244	Crop Process Engineering	3(2+1)

5	APE-355	Dairy and Food Engineering	3(2+1)
6	APE-356	Drying of Farm Crop	2(1+1)
7	APE-357	Storage Engineering	2(1+1)
8	APE-368	Refrigeration and Air Conditioning	2(1+1)
		<b>Total</b>	<b>19=11+8</b>

### 7. Department of Farm Structure

Sr. No.	Course No.	Course Title	Credits
1	FS-121	Engineering Mechanics	3=2+1
2	FS-242	Building Materials	2=1+1
3	FS-353	Strength of Material	3=2+1
4	FS-354	Agricultural Structures and Environmental Control	3=2+1
5	FS-365	Design of Structures	3=2+1
		<b>Total</b>	<b>14=9+5</b>

### 8. Department of Electrical and Other Energy Sources

Sr. No.	Course No.	Course Title	Credits
1	EOES-111	Engineering Chemistry	2=1+1
2	EOES-122	Applied Electronics and Instrumentation	3=2+1
3	EOES-233	Electrical Circuits	3=2+1
4	EOES-244	Electrical Machines and Power Utilization	3=2+1
5	EOES-365	Renewable Energy Sources	3=2+1
		<b>Total</b>	<b>14=9+5</b>
		<b>GRAND TOTAL</b>	<b>136 =77+59</b>

### SECTION ‘F’: Syllabus of following courses of B.Sc. (Agri.) for 2.50% weightage

Sr. No.	Course No.	Title	Credits
1	AGRO-111	Principles of Agronomy	1+1=2
2	AGRO-112	Agricultural Meteorology	1+1=2
3	AGRO-113	Introductory Agriculture (Ancient heritage, agricultural scenario and gender equity in Agriculture)	1+0=1
4	AGRO-124	Water Management including Micro irrigation	2+1=3
5	AGRO-235	Field Crops-(I) (Kharif Crops)	2+1=3
6	AGRO-236	Practical Crop Production (I) (Kharif Crops)	0+1=1
7	AGRO-247	Field Crops -(II) (Rabi Crops)	2+1=3
8	AGRO-248	Practical Crop Production (II)(Rabi Crop)	0+1=1

9	AGRO-359	Weed Management	1+1=2
10	AGRO-3611	Organic and Rained farming	1+1=2
<b>Total</b>			<b>12+10 = 22</b>

1	BOT-111	Environmental Science	1+1=2
2	BOT-122	Principles of Genetics	2+1=3
3	BOT-233	Principles of Plant Breeding	2+1=3
4	BOT-234	Crop Physiology	2+1=3
5	BOT-245	Breeding of field and Horticultural crops	2+1=3
6	BOT-356	Principles of Plant Biotechnology	2+1=3
7	BOT-367	Principles of Seed Technology	2+1=3
<b>Total</b>			<b>13+7=20</b>

1	SSAC-111	Introduction to Soil Science	2+1=3
2	SSAC-122	Soil Chemistry, Soil Fertility and Nutrient Management	2+1=3
3	SSAC-243	Manures, Fertilizers and Agrochemicals	2+1=3
4	SSAC-354	Biochemistry	2+1=3
<b>Total</b>			<b>8+4=12</b>

1	PATH-111	Introductory Plant Pathology	1+1=2
2	PATH-121	Agricultural Microbiology	2+1=3
3	PATH-232	Principles of Plant Pathology	1+1=2
4	PATH-243	Diseases of Field Crops and their Management	2+1=3
5	PATH-354	Diseases of Horticultural Crops and their Management	2+1=3
<b>Total</b>			<b>8+5=13</b>

1	HORT-111	Production Technology of Fruit Crops	2+1=3
2	HORT-132	Production Technology of Vegetables and Flowers	1+1=2
3	HORT-243	Production Technology of Spices, Aromatics, Medicinal and Plantation Crops	1+1=2
4	HORT-364	Post Harvest Management and Value addition of Fruits and Vegetable	1+1=2
<b>Total</b>			<b>5+4=9</b>

1	EXTN-111	Fundamentals of Rural Sociology and educational Psychology	2+0=2
2	EXTN-122	Dimensions of Agricultural Extension	1+1=2
3	EXTN-353	Extension Methodologies for Transfer of Agricultural Technology	1+1=2
4	EXTN-364	Entrepreneurship Development and Communication Skills	1+1=2
<b>Total</b>			<b>5+3=8</b>



1	ECON-121	Principles of Agricultural Economics	2+0=2
2	ECON-232	Production Economics and Farm Management	1+1=2
3	ECON-243	Agricultural Finance and Co-operation	1+1=2
4	ECON-354	Agricultural Marketing, Trade and Prices	1+1=2
5	ECON-365	Agri-business Management	1+1=2
6	ECON-121	Statistics	1+1=2
<b>Total</b>			<b>7+5=12</b>

1	ASDS-111	Livestock Production and Management	1+1=2
2	ASDS-242	Livestock Breeding and Nutrition	1+1=2
3	ASDS-353	Technology of milk and Milk products	1+1=2
4	ASDS-364	Sheep and goat production	1+1=2
<b>Total</b>			<b>4+4=8</b>

1	ENT-231	Insect Morphology and Systematic	2+1=3
2	ENT-242	Insect Ecology, Integrated Pest Management and Beneficial Insects	2+1=3
3	ENT-353	Crop Pests and Stored Grain Pests and their Management	2+1=3
4	ENT-364	Introductory Nematology	1+1=2
<b>Total</b>			<b>7+4=11</b>

1	ENGG-121	Fundamentals of Soil and Water Conservation Engineering	1+1=2
2	ENGG-232	Introduction to Computer and Applications	1+1=2
3	ENGG-353	Farm Power and Machinery	1+1=2
4	ENGG-364	Protected Cultivation and Post harvest Technology	1+1=2
<b>Total</b>			<b>4+4=8</b>
<b>GRAND TOTAL</b>			<b>73+50=123</b>

**SECTION “G”:** Syllabus of following courses of B.Sc. (Agri. Bio-Tech.) for 2.50% weightage

### 1. Department of Biochemistry and Molecular Biology

Sr. No.	Title	Credits
Bio-111	Basic Biochemistry	2+1=3
Bio-122	Enzymology	2+1=3
Bio-123	Microbial Genetics	2+1=3
Bio-234	Molecular Biology	2+1=3
Bio-235	Plant Metabolic Pathways	2+1=3
Bio-236	Elements of Immunology	1+1=2
Bio-247	Techniques in Biochemistry and Molecular Biology	2+2=4
Bio-358	Recombinant DNA Technology	2+1=3
Bio-369	Molecular Plant Virology	2+1=3

BIO 4710	Advances in Recombinant Technology	1+3=4
BIO 4711	Secondary Metabolites of Commercial Importance	1+3=4
BIO 4712	Immunological techniques and its Application	1+3=4
BIO 4713	Proteins and Proteomics	1+3=4
BIO 4714	Enzyme Technology	1+3=4
<b>Total</b>		<b>22+25=47</b>

## 2. Department of Plant Biotechnology

Sr. No.	Title	Credits
PB-111	Fundamentals of Genetics	2+1=3
PB-122	Cell Biology	2+1=3
PB-123	Introduction to Plant Biotechnology	2+1=3
PB-234	Plant Breeding Techniques	2+1=3
PB-235	Molecular Markers in Plant Breeding	1+1=2
PB-246	Plants Cell and Tissue Culture	2+1=3
PB-357	Biotechnology of Biotic and Abiotic Stress Resistance	2+1=3
PB-358	Biodiversity Conservation	2+1=3
PB-369	Introduction to Bioinformatics	1+2=3
PB-3610	Biosafety Issues	2+0=2
PB 4712	Techniques in Genetic Transformation	1+3=4
PB 4713	PCR Techniques and its Application	1+3=4
PB 4714	Legal issues in GMO' s and LMO' s	1+3=4
PB 4715	Plant Genomics	1+3=4
<b>Total</b>		<b>22+22=44</b>

## 3. Department of Crop Science

Sr. No.	Title	Credits
CS 111	Principles of Plant Physiology	2+1=3
CS 112	Field Crop Production	2+1=3
CS 113	Introductory Entomology	1+1=2
CS 124	Fundamentals of Plant Pathology	1+1=2
CS 125	Agricultural Microbiology	1+1=2
CS 126	Horticultural Crop Production	2+1=3
CS 237	Greenhouse Technology and Protected cultivation	1+1=2
CS 248	BioStatistics	1+1=2
CS 249	Intellectual Property Rights	1+0=1
CS 3510	Computer Application in Biotechnology	1+2=3
CS 3611	Management of Major Insect Pests and Diseases of Field and Horticultural Crops	1+1=2
CS 3612	Marketing and Export of Biotechnological Products	1+1=2
<b>Total</b>		<b>15+12=27</b>

#### 4. Department of Post Harvest and Food Biotechnology

Sr. No.	Title	Credits
FB-121	Human Nutrition	1+1=2
FB-232	Industrial Microbiology and Fermentation Technology	2+2=4
FB-243	Enzyme Biotechnology in Food Processing	2+1=3
FB-244	Post-harvest Biotechnology of Food Grains	2+1=3
FB-355	Technological Applications in Food Processing	1+1=2
FB-356	Post-harvest Biotechnology of Horticultural Crops	2+1=3
FB-367	Food and Nutrition Security of GM Food crops	1+1=2
FB 478	Cereal Biotechnology	2+2=4
FB 479	Fruit and Vegetable Biotechnology	2+2=4
FB 4710	Brewing Technology	1+3=4
FB 4711	Wine Technology	1+3=4
FB 4712	Patenting Inventions in Food Biotechnology	2+2=4
<b>Total</b>		<b>19+20=39</b>

#### 5. Department of Animal Biotechnology

Sr. No.	Title	Credits
AB-231	Basics in Animal Biotechnology	2+1=3
AB-242	Animal Cell Culture	2+1=3
AB-243	Biotechnology of Ruminant Feed Utilization	2+1=3
AB-354	Dairy Process Biotechnology	2+1=3
AB-355	Livestock Genome	2+1=3
AB-366	Animal Genetic Engineering	2+1=3
AB 477	Techniques in Animal Cell Culture	1+3=4
AB 478	Transgenic for improvements in animals	1+3=4
AB 479	Artificial Insemination techniques	1+3=4
AB 4710	Advances in Dairy Microbiology	1+3=4
AB 4711	Probiotics in milk and milk products	1+3=4
<b>Total</b>		<b>17+21=38</b>
<b>Total Credit</b>		<b>95+100=195</b>

**SECTION ‘H’:** Syllabus of following courses of B.Sc. (Forestry) for 2.50% weightage

#### 1. Silviculture and Agroforestry (SAF)

Sr.No	Course No	Course title	Credits
1	SAF-121	Principles and Practices of Silviculture	3+1=4
2	SAF-232	Forest Mensuration	2+1=3
3	SAF-233	Nursery Management	1+1=2
4	SAF-244	Silviculture of Indian Trees	2+1=3

5	SAF-245	World Forestry System	2+0=2
6	SAF-356	Silviculture System	2+0=2
7	SAF-357	Plantation Forestry and Waste Land Development	1+1=2
8	SAF-358	Environmental Science	2+1=3
9	SAF-369	Agroforestry System and Management	2+1=3
<b>Total</b>			<b>17+7 = 24</b>

### 2. Forest Biology and Tree Improvement (FBT)

Sr. No.	Course No	Course title	Credits
1	FBT-121	Dendrology	2+1=3
2	FBT-122	Forest Ecology, Biodiversity and Conservation	1+1=2
3	FBT-123	Tree physiology	1+1=2
4	FBT-234	Principles of Tree Improvement	2+1=3
5	FBT-235	Tree Seed Technology	1+1=2
6	FBT-246	Fundamentals of Wildlife	2+0=2
7	FBT-247	Forest Pathology	2+1=3
8	FBT-358	Wildlife Management	1+1=2
9	FBT-369	Forest Entomology and Nematology	2+1=3
<b>Total</b>			<b>14+8=22</b>

### 3. Forest Products and Utilization (FPU)

Sr. No	Course No	Course title	Credits
1	FPU-121	Ethnobotany	1+1=2
2	FPU-232	Wood Anatomy	1+1=2
3	FPU-233	Logging and Ergonomics	1+1=2
4	FPU-244	Wood Science and Technology	2+1=3
5	FPU-245	Wood Product and Utilization	1+1=2
6	FPU-356	Medicinal and Aromatic Plant	2+1=3
7	FPU-367	Utilization of Non Timber Forest Product	2+1=3
<b>Total Credit</b>			<b>10+7=17</b>

### 4. Natural Resource Management (NRM)

Sr. No	Course No.	Course title	Credits
1	NRM-121	Chemistry and Fertility of Forest Soil	2+1=3
2	NRM-232	Forest Engineering and Survey	1+1=2
3	NRM-233	Soil Survey and Remote Sensing	2+1=3

4	NRM-244	Forest Tribology and Anthropology	2+0=2
5	NRM-355	Rangeland Management	2+1=3
6	NRM-356	Principles of Forest Economics, Project Planning and Evaluation	1+1=2
7	NRM-367	Forest Management, Policy and Legislation	2+1=3
8	NRM-368	Forest Business Management	1+1=2
9	NRM-369	Marketing and Trade of Forest Produce	2+1=3
		<b>Total Credit</b>	<b>15+8 =23</b>

### 5. Agriculture Sciences and Humanities

Sr. No	Course No	Course title	Credit
1	F/ECON-111	Introductory Forest Economics	2+0=2
2	F/SSAC-111	Fundamental of Geology and Soil Science	1+1=2
3	F/AGROMET-111	Agricultural Meteorology	1+1=2
4	F/BOT-111	Principles of Cytology and Genetics	1+1=2
5	F/BOT-112	Principles of Plant Physiology	1+1=2
6	F/BOT-113	Introductory Botany	2+1=3
7	F/HORT-111	Fundamentals of Horticulture	2+1=3
8	F/ENGG-121	Principles of Hydrology, Soil and Water Conservation	2+1=3
9	F/SSAC-232	Fundamental of Biochemistry	1+1=2
10	F/ASDS-241	Live Stock Management	1+1=2
11	F/STAT-351	Elementary Statistics	1+1=2
12	F/COMP-351	Introduction to Computer Application and Programming	1+1=2
13	F/EXTN-241	Extension Education	1+1=2
14	F/BIOT-361	Fundamental of Biotechnology	1+1=2
15	F/EXTN-362	Entrepreneurship Development and Communication Skills	2+1=3
		<b>Total</b>	<b>20+14=34</b>
		<b>GRAND TOTAL</b>	<b>76+44=120</b>

**SECTION ‘I’: Syllabus of following courses of B.Sc. (Hort.) for 2.50% weightage**

**1. Department of Horticulture**

<b>Sr. No</b>	<b>Course No</b>	<b>Course title</b>	<b>Credit</b>
1	H/HORT-111	Fundamentals of Horticulture	3=2+1
2	H/FL-111	Ornamental Horticulture	2=1+1
3	H/HORT-122	Propagation and Nursery Management	3=2+1
4	H/HORT-123	Growth and Horticultural Crops	2=1+1
5	H/FS-231	Tropical and sub-tropical fruits	3=2+1
6	H/VS-231	Tropical and sub-tropical vegetables and Tuber crops	3=2+1
7	H/PHT-231	Post harvest management of horticultural crops	3=2+1
8	H/SPICON-231	Spices and Condiments	2=1+1
9	H/FL-232	Landscape gardening	2=1+1
10	H/FS-242	Breeding of fruit and Plantation crops	3=2+1
11	H/FS-243	Arid fruit crops	2=1+1
12	H/VS-242	Temperate Vegetables	2=1+1
13	H/FL-243	Commercial Floriculture	3=2+1
14	H/AROMED-241	Aromatic and Medicinal Plants	2=1+1
15	H/VS-353	Breeding of Vegetable Crops	3=2+1
16	H/FS-354	Temperate Fruit and Plantation Crops	3=2+1
17	H/HORT-354	Introductory Agroforestry and Horti silvipasture	2=1+1
18	H/FL-354	Protected Cultivation of Flower crops	2=1+1
19	H/FL-365	Breeding and Seed Production of Ornamental Crops	2=1+1
20	H/VS-354	Seed Production in Vegetable Crops	3=2+1
21	H/VS-365	Protected Cultivation of Vegetable crops	2=1+1
22	H/PHT-362	Processing and Value Addition In Horticultural Crops	3=1+2
		<b>Total</b>	<b>55=32+23</b>

## 2. Department of Soil Science and Agricultural Chemistry

Sr. No	Course No	Course title	Credits
1	H/SSAC-111	Fundamentals of Soil science	2=1+1
2	H/SSAC-122	Soil Fertility and Nutrient Management	3=2+1
3	H/SSAC-233	Fundamentals of Biochemistry	2=1+1
4	H/SSAC-244	Soil, Irrigation water and Plant analysis	1=0+1
		<b>Total Credit</b>	<b>8=4+4</b>

## 3. Department of Agricultural Botany

Sr. No	Course No	Course title	Credits
1	H/BOT-111	Principles of Genetics and Cytogenetics	3=2+1
2	H/BOT-122	Principles of Plant Breeding	2=1+1
3	H/BOT-123	Introductory Plant Physiology	2=1+1
4	H/BOT-354	Environmental science and Agro-ecology	2=1+1
5	H/BOT-361	Fundamentals of Biotechnology	2=1+1
		<b>Total Credit</b>	<b>11=6+5</b>

## 4. Department of Agricultural Extension

Sr. No	Course No	Course title	Credits
1	H/EXTN-111	Fundamentals of Extension Education	2=1+1
2	H/EXTN-122	Agricultural Communication and Journalism	1=0+1
3	H/EXTN-363	Entrepreneurship Development and Communication skill	2=1+1
		<b>Total Credit</b>	<b>5=2+3</b>

## 5. Department of Agricultural Economics

Sr. No	Course No	Course title	Credits
1	H/ECON-111	Introductory Economics	2=2+0
2	H/STAT-121	Elementary Statistics	2=1+1
3	H/ECON-242	Horti-Business Management	2=2+0
		<b>Total</b>	<b>6=5+1</b>

### 6. Department of Agronomy

Sr. No	Course No	Course title	Credits
1	H/AGROMET-111	Agricultural Meteorology	2=1+1
2	H/AGRO-121	Water Management in Horticultural crops	2=1+1
3	H/AGRO-232	Weed Management in Horticultural crops	2=1+1
4	H/AGRO-243	Organic Farming	2=1+1
		<b>Total</b>	<b>8=4+4</b>

### 7. Department of Agricultural Plant Protection and Microbiology

Sr. No	Course No	Course title	Credits
1	H/MIBO-111	Introductory Microbiology	2=1+1
2	H/ MIBO -362	Applied Microbiology	1=0+1
3	H/PATH-121	Fundamentals of Plant Pathology	2=1+1
4	H/PATH-232	Disease of vegetables, ornamentals and spice crops	3=2+1
5	H/PATH-243	Disease of fruit, plantation, medicinal and aromatic crops	3=2+1
6	H/PATH-354	Mushroom culture	1=0+1
		<b>Total</b>	<b>12=6+6</b>

### 8. Department of Agricultural Entomology

Sr. No	Course No	Course title	Credits
1	H/ENTO-121	Fundamentals of Entomology	2=1+1
2	H/ ENTO -352	Insect pest management of vegetables, ornamentals and spice crops	3=2+1
3	H/ ENTO -353	Insect pest management of fruit, plantation, medicinal and aromatic crops	3=2+1
4	H/ ENTO -364	Nematode pest of Horticultural crops and their management	2=1+1
5	H/ ENTO -365	Apiculture	1=0+1
		<b>Total</b>	<b>11=6+5</b>



**9. Department of Agricultural Engineering and allied**

<b>Sr. No</b>	<b>Course No</b>	<b>Course title</b>	<b>Credits</b>
1	H/COMP-111	Computer Applications	2=1+1
2	H/ENGG-351	Farm power and Machinery	2=1+1
		<b>Total</b>	<b>4=2+2</b>
		<b>GRAND TOTAL</b>	<b>120 = 67 + 53</b>

**Annexure: ‘J’****Syllabus for CET in Fisheries Science Stream for 100 % weightage****AQUACULTURE**

PRINCIPLES OF AQUACULTURE  
 FRESHWATER AQUACULTURE  
 FISH NUTRITION AND FEED TECHNOLOGY  
 CULTURE OF FISH FOOD ORGANISMS  
 ORNAMENTAL FISH PRODUCTION AND MANAGEMENT  
 COASTAL AQUACULTURE AND MARICULTURE  
 FINFISH BREEDING AND HATCHERY MANAGEMENT  
 SHELLFISH BREEDING AND HATCHERY MANAGEMENT  
 DISEASES AND MANAGEMENT  
 BIOTECHNOLOGY AND BIOINFORMATICS  
 GENETICS AND BREEDING

**FISHERIES BIOLOGY**

TAXONOMY OF FINFISH  
 ANATOMY AND BIOLOGY OF FINFISH  
 TAXONOMY OF SHELLFISH  
 ANATOMY AND BIOLOGY OF SHELLFISH  
 INLAND FISHERIES  
 PHYSIOLOGY OF FINFISHES AND SHELLFISHES  
 MARINE FISHERIES  
 FISH STOCK ASSESSMENT AND MANAGEMENT

**Fisheries Hydrography**

METEOROLOGY AND GEOGRAPHY  
 TECHNIQUES OF SOIL ANALYSIS  
 LIMNOLOGY  
 PHYSICAL OCEANOGRAPHY  
 CHEMICAL OCEANOGRAPHY  
 MARINE BIOLOGY  
 AQUATIC BIODIVERSITY  
 AQUATIC POLLUTION  
 COASTAL ZONE MANAGEMENT

**Fisheries Technology**

PRINCIPLES OF BIOCHEMISTRY  
 FUNDAMENTALS OF MICROBIOLOGY  
 FOOD CHEMISTRY AND FISH IN NUTRITION  
 BIOCHEMICAL TECHNIQUES AND INSTRUMENTATION  
 FREEZING TECHNOLOGY  
 THERMAL PROCESSING AND PACKAGING TECHNOLOGY  
 FISH PRODUCT AND BY PRODUCT TECHNOLOGY  
 FISHERY MICROBIOLOGY AND QUALITY ASSURANCE

**FISHERIES ENGINEERING**

FISHING CRAFT TECHNOLOGY  
 FISHING GEAR TECHNOLOGY  
 NAVIGATION AND SEAMANSHIP  
 FISHING TECHNOLOGY  
 AQUACULTURE ENGINEERING  
 REFRIGERATION AND EQUIPMENT ENGINEERING

**Fisheries Resources, Economics, Statistics and Extension Education**

INFORMATION AND COMMUNICATION TECHNOLOGY  
 ELEMENTS OF STATISTICS  
 BUSINESS ORGANIZATION AND PERSONNEL MANAGEMENT  
 FISHERIES ECONOMICS  
 RURAL SOCIOLOGY AND EXTENSION EDUCATION  
 DISASTER MANAGEMENT  
 STATISTICAL METHODS  
 EXTENSION PROGRAMME PLANNING  
 FISHERIES ADMINISTRATION AND LEGISLATION  
 MARKETING MANAGEMENT  
 ENTREPRENEURSHIP DEVELOPMENT AND FINANCE  
 COMMUNICATION SKILLS

**Annexure : “K”****Faculty-wise weightage for Post Harvest Management (PHM) CET**

<b>Sr. No.</b>	<b>Faculty</b>	<b>Weightage (%)</b>	<b>No. of questions</b>
1	B.B.M. (Agri.)	11%	22
2	B.Sc. (Forestry)	11%	22
3	Agri. Biotechnology	11%	22
4	Agriculture	11%	22
5	Fisheries	11%	22
6	B.Tech. (Agril. Engineering)	11%	22
7	B.Sc. (Hort.)	11%	22
8	Food Tech	11%	22
9	B.Sc. (Hons.) Home Science Food and Nutrition	11%	22
10	General questions on PHT	1%	2
	<b>Total</b>	<b>100%</b>	<b>200</b>

**COMMON SYLLABUS FOR POST HARVEST MANAGEMENT (PHM)CET  
COURSE LIST**

Sr. No.	Faculty	Course No.	Course Title	Credit	Total credit
1	B.B.M. (Agri.)	HORT- 243	Post Harvest Technology of Horticultural Crops	2+1=3	3
		ENGG-232	Post Harvest Technology for cereals, pulses, Oilseeds and Cash Crops	1+1=2	2
		ASDS-242	Value Addition in Animal Products.	1+1=2	2
		ABM-358	Agro-Processing Management	1+1=2	2
		HORT-232	Production Management of Important Vegetables and Floriculture Crops	1+1=2	2
		ASDS-231	Animal Production Management	1+1=2	2
		HORT-111	Production Management of Important Fruit Crops	1+1=2	2
<b>Total credit</b>					<b>15</b>
2	B.Sc. (Forestry)	FPU-356	Medicinal and Aromatic Plant	2+1=3	3
		FPU-245	Wood Products and Utilization	1+1=2	2
		NRM-357	Principles of Forest Economics, Project Planning and Evaluation	1+1=2	2
		FPU-367	Utilization of Non-Timber Forest Products	2+1=3	3
		NRM-369	Forest Business Management	1+1=2	2
		NRM-3610	Marketing and Trade of Forest Produces	2+1=3	3
<b>Total credit</b>					<b>15</b>
3	B.Sc. (Agril. Biotechnology)	FB- 244	Post Harvest Biotechnology of Food grains	2+1= 3	3
		FB- 366	Post Harvest Biotechnology of Horticultural crops	2+1= 3	3
		FB- 343	Enzyme Biotechnology in Food Processing	2+1= 3	3
		FB- 232	Industrial Microbiology and Fermentation Technology	2+2= 4	4
		FB- 355	Technological Applications in Food Processing	1+1= 2	2
<b>Total credit</b>					<b>15</b>
4	B.Sc. (Agri.)	HORT- 232	Production Technology of Vegetables and Flowers	1+1= 2	2
		HORT- 243	Production Technology of Spices, Aromatic, Medicinal and Plantation crops	1+1= 2	2
		HORT- 111	Production Technology of Fruits Crops	2+1= 3	3
		HORT- 364	Post Harvest Management and Value Addition of Fruits and Vegetables	1+1= 2	2
		ECON- 365	Agri. Business Management	1+1= 2	2
		ENGG- 364	Protected Cultivation and Post Harvest Technology	1+1= 2	2
<b>Total credit</b>					<b>13</b>
5	B. F.Sc. (Fisheries science)	F-BIOL-328	Fish Stock Assessment and Management	2+1= 3	3
		F-TECH-123	Food Chemistry and Fish in Nutrition	2+1= 3	3
		F-TECH-215	Freezing Technology	2+1= 3	3
		F-TECH-226	Thermal Processing and Packaging Technology	2+1= 3	3

		F-TECH-317	Fish Product and By Product Technology	2+2=4	4
				<b>Total credit</b>	<b>16</b>
6	B.Tech. (Agri. Engineering)	APE- 244	Crop Process Engineering	2+1= 3	3
		APE- 368	Refrigeration and Air Conditioning	1+1= 2	2
		AG- 245	Agri. Business Management	2+0= 2	2
		APE- 356	Drying of farm crops	1+1= 2	2
		APE- 357	Storage Engineering	1+1= 2	2
				<b>Total credit</b>	<b>11</b>
7	B.Sc. (Hort.)	H/PS-231	Tropical and Sub-tropical fruits	2+1=3	3
		H/VS-231	Tropical and Sub-tropical Vegetables	2+1=3	3
		H/PHT-231	Post harvest management of horticultural crops	2+1=3	3
		H/SPICON-231	Spices and condiments	1+1=2	2
		H/FL-243	Commercial Floriculture	2+1=3	3
		H/ECON-242	Horti-Business Management	2+0=2	2
				<b>Total credit</b>	<b>16</b>
8	B. Tech (Food technology)	FST-111	Principle and food processing	2+1=3	3
		FST-123	Post Harvest management of fruits and vegetables	2+1=3	3
		FST-124	Cereal processing	2+1=3	3
		FST-236	Meat Poultry and fish Technology	2+1=3	3
		FIM-122	Food Microbiology	2+1=3	3
				<b>Total credit</b>	<b>15</b>
9	B.Sc. (Home Science.)	AG-Econ-231	Marketing Management	2+1=3	3
		FSN-244	Food Preservation and Storage	1+2=3	3
		FSN-ND-351	Food science	2+1=3	3
		FSN-ND-352	Food Analysis	1+2=3	3
		FSN-ND-353	Food Standards and Quality Control	2+1=3	3
				<b>Total credit</b>	<b>15</b>
				<b>Overall credit</b>	<b>131</b>