

**ORDINANCES AND OUTLINES OF TESTS,
SYLLABI AND COURSES OF READING
FOR
ADVANCE DIPLOMA IN GREEN HOUSE TECHNOLOGY
(PART-I)
(SEMESTER I & II)
FOR
2016-17 & 2017-18 SESSIONS
UNDER CREDIT BASED SEMESTER SYSTEM
OF
UNIVERSITY GRANTS COMMISSION**



**DEEN DAYAL UPADHYAY KAUSAL KENDRA
GENERAL SHIVDEV SINGH DIWAN GURBACHAN SINGH
KHALSA COLLEGE PATIALA**

**An Autonomous College
NAAC Accredited 'A' Grade
College with Potential for Excellence Status by UGC
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Preamble:

General Shivdev Singh Diwan Gurbachan Singh Khalsa College Patiala, accredited 'A' grade by NAAC (2015), recognized as "College with Potential for Excellence" status by UGC, New Delhi (2016) and an Autonomous College (2016), is a premier institute of higher education in the state of Punjab since 1960. Being concordant with the need to the creation of a self-sustaining, global knowledge society, the college has undertaken several measures initiated by UGC to bring equity, efficiency and excellence in the Higher Education System of the country.

The important measures taken to enhance academic standards and quality in higher education include innovation and improvements in curriculum, teaching-learning process, examination and evaluation systems, besides governance and other matters.

The UGC has formulated various regulations and guidelines from time to time to improve the higher education system and maintain minimum standards and quality across the Higher Educational Institutions (HEIs) in India. The academic reforms recommended by the UGC in the recent past have led to overall improvement in the higher education system. However, due to lot of diversity in the system of higher education, there are multiple approaches followed by Higher Educational Institutions towards examination, evaluation and grading system. While the HEIs must have the flexibility and freedom in designing the examination and evaluation methods that best fits the curriculum, syllabi and teaching-learning methods, there is a need to devise a sensible system for awarding the grades based on the performance of students. Presently, the performance of the students is reported using the conventional system of marks secured in the examinations or grades or both. The conversion from marks to letter grades and the letter grades used vary widely across the HEIs in the country. This creates difficulty for the academia and the employers to understand and infer the performance of the students graduating from different universities and colleges based on grades.

The grading system is considered to be better than the conventional marks system and hence it has been followed in the top institutions in India and abroad. So, it is desirable to introduce uniform grading system. This will facilitate student mobility across institutions within and across countries and also enable potential employers to assess the performance of students. To bring in the desired uniformity in grading system and method for computing the grades, the UGC has formulated certain guidelines for credit system.

DEFINITIONS

- a. Academic Year:** Two consecutive (one odd + one even) semesters constitute one academic year.
- b. Course:** Usually referred to, as 'papers' is a component of a programme. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise lectures/tutorials/laboratory work/field work/outreach activities/ project work/vocational training/viva/seminars/term papers /assignments/ presentations/self study etc. or a combination of some of these.
- c. Skill Development Component:** Skill component of the programme/course is employment oriented. The skilled development component curriculum is aligned to Qualification Packs (QPs)

/ National Occupational Standards (NOSs) of selected job role(s) within the industry sector(s) and it will enable the students to meet the learning outcomes specified in the NOSs.

- d. General Education Component:** The general education component includes the course(s) which are supportive to core trade in addition to soft skills, IT skills, and language proficiency and literature. It emphasizes on holistic development.
- e. Credit Based Semester System (CBSS):** Under the CBSS, the requirement for awarding a degree or diploma or certificate is prescribed in terms of number of credits to be completed by the students.
- f. Credit(C):** A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week. Accordingly, one Credit would mean equivalent of 14-15 periods of 60 minutes each or 28 – 30 hrs of workshops / labs.
- g. Grade Point (G):** It is a numerical weight allotted to each letter grade on a 10 point scale.
- h. Credit Point (CP):** The numerical value obtained by multiplying the grade point (GP) by the no. of credit(C) of the respective course i.e. $CP = G \times C$.
- i. Semester:** Each semester will consist of 15-18 weeks of academic work equivalent to 90 actual teaching days. The odd semester may be scheduled from July to December and even semester from January to June.
- j. Semester Grade point Average (SGPA):** It is a measure of performance of work done in a semester. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the course components taken by a student and the sum of the number of credits of all the courses undergone by a student in a semester, *i.e*
- $$SGPA (S_i) = \frac{\sum(C_i \times G_i)}{\sum C_i}$$
- where 'C_i' is the number of credits of the ith course component and 'G_i' is the grade point scored by the student in the ith course component.
- k. Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, *i.e.*
- $$CGPA = \frac{\sum(C_i \times S_i)}{\sum C_i}$$
- where 'S_i' is the SGPA of the 'ith' semester and C_i is the total number of credits in that semester. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.
- l. Letter Grade:** It is an index of the performance of students in a said course. Grades are denoted by letters O, A+, A, B+, B, C, P, F and Ab.
- m. National Skill Development Corporation India (NSDC):** It is setup as a Public Private Partnership Company with the primary mandate of catalyzing the skills landscape in India. NSDC has a unique model based on the following pillars such as to Create (Proactively catalyze creation of large, quality vocational training institutions), Fund (Reduce risk by providing patient capital. Including grants and equity) and Enable the creation and sustainability of support systems required for skill development. This includes the Industry led Sector Skill Councils.

- n. **Sector Skill Council (SSC):** Under the National Skills Development Corporation, many Sector Skill Councils representing respective industries is established. One of the mandates of Sector Skill Councils is to develop National Occupational Standards (NOSs) for various job roles in their respective industries. SSC embeds the competencies required for specific job roles in the higher education system for creating employable learners eg: Diploma and Advance Diploma (Green House Technology) has Agriculture Skill Council of India (ASCI).
- o. **National Skill Qualification Framework (NSQF):** Diploma and Advance Diploma (Green House Technology) Programme has been designed as per National Skill Qualification Framework (NSQF) emphasizing on skill based education. There are three levels of NSQF in the Diploma and Advance Diploma programme such as Level 4 is certificate (Green House Technology), Level 5 is Diploma (Green House Technology) and Level 6 is Advance Diploma (Green House Technology).
- p. **Qualification Pack (QP):** A set of National Occupational Standards aligned to a specific job role.
- q. **National Occupational Standards (NOS):** They describe what individuals need to do, know and understand in order to carry out a particular job role or function. They are the performance standards which an individual must achieve when carrying out function in a workplace together with specifications of the underpinning knowledge and understanding.
- r. **Programme:** An educational programme leading to award of a advance diploma, diploma, certificate.
- s. **Transcript or Grade Card (GC) or Certificate:** Based on the grades earned, a grade certificate shall be issued to all the registered students after every semester. The grade certificate will display the course details (code, title, no. of credits, grades secured) along with SGPA of that semester and CGPA earned till date semester.
- t. **Semester Examinations:** The comprehensive examinations conducted for summative evaluation of course. The duration of these examinations shall be 3 hours for theory and as per requirement for practical courses and the weight shall be as per the ordinance of relevant programme.

ORDINANCES FOR ADVANCE DIPLOMA IN GREEN HOUSE TECHNOLOGY

Advance Diploma in Green House Technology is launched under the scheme of University Grants Commission for skill development based on higher education leading to Advance Diploma in Green House Technology, with multiple exits as Certificate/Diploma/Advance Diploma under the National Skill Qualification framework (NSQF). This programme incorporates specific job roles and their National Occupational Standards along broad based general education. Advance Diploma in Green House Technology Programme has been designed as per National Skill Qualification Framework (NSQF) emphasizing on skill based education.

There may be three types of learners getting admission to first semester of Advance Diploma in Green House Technology courses under NSQF:

) **Category – 1:** Students who have already acquired NSQF certification Level 4 in a particular industry sector and opted for admission in the Advance Diploma under NSQF in same sector for which he/she was previously certified at school level.

) **Category – 2:** Students who have acquired NSQF certification Level 4 but may like to change their sector and may enter in Advance Diploma in a different sector.

) **Category – 3:** Students who have passed 10+2 examination with conventional schooling without any background of vocational training.

The institution has developed curriculum and has arrangement for skill intensive training / teaching for the learners belonging to the category-2 and 3 as above during the first six months who will be assessed and certified for NSQF Level 4 of skill competency by concerned Sector Skill Council at the end of first semester.

However, learners belonging to category-1 will not require such certification as they were already having NSQF level 4 certificates in same industry sector / job role required for specified skill credits. All the learners continuing for Diploma courses or further will be treated at par from second semester onwards. Students may exit after six months with a Certificate (NSQF Level 4) or may continue for diploma or Advance diploma level course(s). An academic progression for the students in vocational stream is illustrated below:

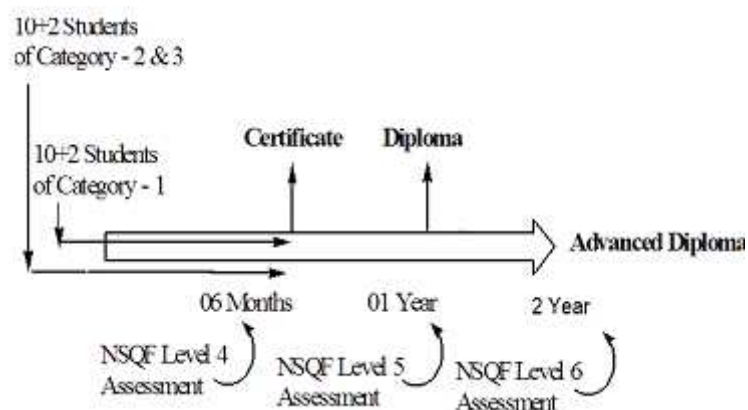


Fig. 1: Assessment of Skill Component under NSQF in Vocational Courses

1. **LEVELS OF AWARD:**

As an illustration, awards could be given at each stage as per table below for cumulative credits awarded to the learners in skill based vocational courses.

NSQF Level	Skill Component Credits	General Education Credits	Total Credits for Award	Normal Duration	Exit Points / Awards
4	18	12	30	One semester	Certificate
5	36	24	60	Two semesters	Diploma
6	72	48	120	Four semesters	Advance Diploma

The NSQF Levels in above illustrations indicate that there is at least one job role at the concerned NSQF Level and the skill component of the curriculum will be assessed and certified for level by respective sector skill council. The normal training hours for skilling should be proportionate to the weightage for skill credits and an appropriate component of skill training may be imparted as on-site training at actual work place.

The candidates who have acquired vocational Certificate / Diploma or Advance Diploma from UGC recognized Community Colleges / B.Voc institutions or DDU KAUSHAL Kendras in a specific sector with certified skills on a particular job role will be eligible for admission through lateral entry to next higher level on same sector.

The curriculum in each of the years of the programme is a suitable mix of general education and skill development components. The General Education has 40 % of the total credits and balance 60% credits are of Skill Component. The skill component will conform to the Qualification Packs/National Occupational Standards and the general education component will provide holistic development.

1.1 **Skill Development Components:**

- 1.1.1. Skill component of the programmes/courses is employment oriented.
- 1.1.2. The curriculum has been aligned to Qualification Packs (QPs) / National Occupational Standards (NOSs) of selected job role(s) within the industry sector(s). This will enable the students to meet the learning outcomes specified in the NOSs.
- 1.1.3. The curricula and system of certification for the skill component are as per the National Occupational Standards defined by respective Sector Skills Council(s).
- 1.1.4. For skills, the model curriculum is developed by the concerned Sector Skill Council. This will promote national and global mobility of the learners, as well as higher acceptability by the industry for employment purposes.
- 1.1.5. The overall design of the skill development component along with the job roles selected is such that it leads to a comprehensive specialization in one or two domains.

- 1.1.6. The curriculum is focused on work-readiness in terms of skills in each of the two years.
- 1.1.7. There has been at least one job role which is related to qualification pack at the concerned NSQF Level in the curriculum to be assessed for level by respective SSC. The normal training hours for skilling will be proportionate to the weightage for skill credits and an appropriate component of skill training may be imparted as on-site training at actual work place.
- 1.1.8. The institution provides Recognition of Prior Learning (RPL) framework for job roles at NSQF Level 4 onwards by conducting assessment and certification through respective SSC(s) / Directorate General of Employment and Training (DGET).
- 1.1.9. **The Skill component of the course will be assessed and certified for NSQF level by the respective Sector Skill Councils.** In case, there is no Sector Skill Council for a specific trade, the assessment may be done by an allied Sector Council or the Industry partner. The Sector Skill Council will give the NSQF level and it will be added in the result issued by the institution.
- 1.1.10. Industrial Visits, Industrial Trainings and Project work regarding Skill Education Component will mandatory part of the curriculum.
- 1.1.11. The credits regarding **skill component** is awarded in terms of NSQF level certification and the total credits of the course will be in following manner.

Name of the Course	NSQF Level Certificate	Cumulative Credits
Certificate	Level – 4	18 credits
Diploma	Level – 5	36 credits
Advance Diploma	Level – 6	72 credits

The skill credits indicated above at a particular level is cumulative to the level concerned *i.e.* a candidate in diploma level will be assessed for NSQF level – 5 to acquire 36 credits of skill component will be considered for overall 36 credits only.

Similarly for Advance Diploma, the 72 credits of NSQF level 6 will be inclusive of the credits awarded at NSQF level 4 and 5 for the skill competence of candidate assessed at different stages before he/she has acquired the skill competence at NSQF level 6.

1.2. General Education components:

The general education component adheres to the normal university standards. The general education component of the curriculum will be decided by the Board of Studies of the College. This may also include the course(s) which are supportive to core trade in addition to soft skills, IT skills, and language proficiency and literature.

Advance Diploma in Green House Technology will be run on Credit Based Semester System as described in the introduction.

2. ELIGIBILITY FOR ADMISSION IN DIPLOMA/ADVANCE DIPLOMA IN GREEN HOUSE TECHNOLOGY

- 2.1 The minimum educational qualification for admission into Diploma/Advance Diploma course will be class XII pass (Any stream) or vocational from any recognized board or university.
- 2.2 Equal weightage, at par with other subjects, should be given to vocational subjects at +2 level while considering the students for admission into Diploma/Advance Diploma.
- 2.3 For admission to the skill based vocational courses, preference may be given to the learners living in the local community.
- 2.4 Reservation to SC, ST, OBC and PwD categories will be available as per the extant national / State policy.
- 2.5 There shall be no age bar for admission in such courses.
- 2.6 The applicants seeking re-entry into the education and training for further Advance learning's in their field of expertise in particular trade should get preference in admission over the new applicants.

Note: Candidate placed under reappear in one or more subjects in 10+2 examination of Punjab School Education Board or any other examination, recognized as equivalent thereto shall not be eligible for admission to Diploma/Advance Diploma Part-I Course.

- 2.7 To qualify for admission to 3rd semester of the course, the candidate must have passed 50% of total papers of the two semesters of the 1st year. In case, the result of 2nd semester is not declared at the time of admission to 3rd semester, the student may be admitted provisionally and will be allowed to take examination of 3rd semester if he/she has passed in 50% of the total papers of first year (i.e. 1st and 2nd Semesters).
- 2.8 A candidate must complete and pass the whole course of two years within a maximum of four years from the date of admission in Advance Diploma in Green House Technology First Semester. If the candidate does not clear the lower examination within stipulated period the higher result of the candidate will stand automatically cancelled.

3. EXAMINATION RULES

- 3.1 Semester examination will be open to regular candidates who have been on the rolls of a college and meet the attendance and other requirements.
- 3.2 Paper Setting/Evaluation will be done by an External Examiner or as decided by the Examination Cell.
- 3.3 A candidate placed under reappear in any paper, will be allowed two consecutive chances to clear the reappear.
- 3.4 The supplementary examination will be held along with the routine End Semester Tests. The supplementary paper would be from the syllabi prescribed for that session in which the candidate is appearing. The examination of reappear papers of odd semesters will be held with regular examination of the odd semester and reappear examination of the even semester will be held with regular examination of even semesters. The student can appear only in the theory paper on the payment of the required fee. The candidate will have

consecutive two attempts to clear the Supplementary Examination. Marks of Practical and Internal assessment will carry forward as original.

- 3.5 Re-evaluation of answer sheet in two subjects is allowed after paying the requisite fee. The application for Re-evaluation should be submitted within 15 days of the declaration of the results. In case there is a difference of more than 10 % between the marking of the first evaluator and the second evaluator, then the paper would be sent to a third Evaluator. The mean of the marks of the second and third evaluators will be considered as the final marks. The re-evaluated marks will be considered final irrespective of the increase or decrease in marks.
- 3.6 The students who have reappear in the 4th semester of Two Year Diploma Course at will be allowed to appear in their Reappear examination along with the Final Semester Examinations of their respective courses.
- 3.7 The Principal can provide Golden Chance (with special chance fee) to students who have been unable to clear their exams even after two attempts.
- 3.8 Improvement of Examinations:
- 3.8.1 A student who has been declared 'pass' in the Diploma/Advance Diploma he/she was admitted to, may apply for improvement examination within a year from the declaration of the result of the final semester and he/she can take maximum of 50% of the total papers for that course for improvement. The student shall have to appear in End semester examination of the paper chosen for improvement along with the regular students. No special exam shall be held from him/her.
- 3.8.2 If a student fails to improve upon the original marks obtained in the paper chosen for improvement, his/her original marks shall be retained and he/she shall not get a second chance for improvement.
- 3.8.3 Improvement examination in practical paper shall not be allowed.
- 3.8.4 A student taking improvement examination shall have to pay a fee decided by the college.
- 3.9 Internal Assessment: The Assessment in each semester of Diploma/Advance Diploma will be 30% internal and 70% external for each Theory paper. The result of the Internal Assessment shall be conveyed to the students/examination branch by the Head of the Department according to prescribed schedule. The NSQF level Assessment will be done by Sector Skill Council i.e. Agriculture skill council India (ASCI).
- 3.9.1 There shall be Two Mid Semester tests in each Semester.
- 3.9.2 Internal Assessment of 30% will be based on Continuous Comprehensive Assessment (CCA) pattern and the breakup of 30% will be as under:
- | | | | |
|-------|--|---|-----|
| (i) | Average of Two Mid Semester Tests | : | 40% |
| (ii) | Assignment/Seminar/Class Test/Tutorial/Quiz etc. | : | 40% |
| (iii) | Attendance | : | 20% |
- Papers having practical/viva, the marks of theory and practical/viva will be reduced equally percentage wise to make room for 30% internal assessment.

Note: If a case comes to notice of Controller of Examinations where the marks awarded by the Teacher are on a very Higher/Lower side, the award will be got moderated by the following committee.

- I. Paper Evaluator
- II. Head of the Department
- III. Dean of Faculty concerned
- IV. Controller of Examination

3.9.3 The marks for attendance in internal assessment would be awarded according to the student's attendance percentage as follows:

91-100% attendance	100% marks of the allotted Internal Assessment marks for attendance
81-90% attendance	80% marks of the allotted Internal Assessment marks for attendance
75-80% attendance	70% marks of the allotted Internal Assessment marks for attendance
Below 75%	Zero marks

3.9.4 A candidate is required to secure at least 35% marks both in external examination (Theory and Practical/ Project work) and in internal assessment separately in each paper in order to qualify in an examination.

3.9.5 Students should be shown the internal assessment before submission. In case the student is dissatisfied with the marks awarded to him/her in internal assessment; he/she can approach the concerned teacher. If the student is still not satisfied he/she may approach the head of department and the Principal subsequently.

3.10. Viva Voce/ Practical examination shall be conducted by a Committee consisting of the following:

- (i) One external examiner
- (ii) One internal examiner

3.11. All the question papers except Punjabi and English will be set in English only and candidates can answer the questions only in English.

3.12. A student can opt for Elementary Punjabi under the following conditions:

- (i) Those students who have passed their Matric Examination outside the State of Punjab and have not opted for Punjabi Subject.
- (ii) Wards of Defence Personnel/Para-Military Personnel can opt for Elementary Punjabi.
- (iii) Children of NRI, NRE and Foreign Students.

3.13. A candidate is required to secure at least 35% marks both in external examination (Theory and Practical/ Project work) and in internal assessment separately in each paper in order to qualify in an examination. Provided, that in papers with practical's, the percentage shall be required separately in written and practical/lab work. The candidate shall also be

entitled to grace marks as admissible under the general ordinance relating to the 'Award of Grace Marks'. These ordinances will apply to all examinations.

3.13.1. Grace marks to be given shall be calculated on the basis of 1 % of total aggregate marks of all the written and practical papers of the examination concerned. Marks for viva-voce/internal assessment/sessional work/skill in teaching/any additional /optional subject shall not be taken into account for this purpose. If a fraction works out to half or more, it shall count as one mark and fractional less than half shall be ignored.

3.13.2. To pass in one or more written papers or subjects , and /or to make up the aggregate to pass the examination but not in sessional work, internal assessment, viva voce and skill in teaching

3.14. End-Semester Examination:

End-semester examination(s) of each theory course shall be of three hours duration and will be conducted as per norms and schedule notified by the Controller of Examination. The end semester examinations of laboratory/practical courses and other courses such as seminar, colloquium, field work, project, dissertation etc. shall be conducted as notified by the Head of Department.

4 EVALUATION AND GRADING SYSTEM:

The grades and their description, along with equivalent numerical grade points are listed in the Grading Assignment Table as follows:

4.1. Grade Assignment Table

Range of Marks	Description	Grade	Grade Point
85-100	Outstanding	O	10
75-84	Excellent	A+	9
65-74	Very Good	A	8
55-64	Good	B+	7
50-54	Above Average	B	6
45-49	Average	C	5
35-44	Pass	P	4
0-34	Fail	F	0
Otherwise	Absent/Detained	Ab/D	0

4.1.1. A student obtaining Grade F shall be considered failed and will be required to reappear in the examination.

4.1.2. For non credit courses (if any) '**Satisfactory**' or '**Unsatisfactory**' shall be indicated instead of the letter grade and this will not be counted for the computation of SGPA/CGPA.

4.2. Computation of SGPA and CGPA

The UGC recommends the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

4.2.1. The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the course components taken by a student and the sum of the number of credits of all the courses undergone by a student in a semester, *i.e*

$$\text{SGPA (Si)} = \frac{\sum (C_i \times G_i)}{\sum C_i}$$

Where 'Ci' is the number of credits of the ith course component and 'Gi' is the grade point scored by the student in the ith course component.

4.2.2. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, *i.e.*

$$\text{CGPA} = \frac{\sum (C_i \times S_i)}{\sum C_i}$$

Where 'Si' is the SGPA of the 'i'th semester and Ci is the total number of credits in that semester.

4.2.3. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

4.2.4. Illustration of the computation of SGPA and CGPA and Format for Transcripts

Illustration* for SGPA

Course	Credits	Grade Letter	Grade Point	Credit Point (Credit x Grade)
Course 1	4	A	8	4 X 8 = 32
Course 2	4	B+	7	4 X 7 = 28
Course 3	4	B	6	4 X 6 = 24
Course 4	4	O	10	4X 10 = 40
Course 5	4	C	5	4 X 5 = 20
Course 6	5	B	6	5 X 6 = 30
Course 7	5	B	6	5 X 6 = 30
	30			204

Thus, **SGPA (Si) = $\sum (C_i \times G_i) / \sum C_i$**

i.e. **SGPA = 204/30 = 6.8**

* Illustration for CGPA

Semester 1	Semester 2	Semester 3	Semester 4
Credit : 30 SGPA : 6.9	Credit : 30 SGPA : 7.8	Credit : 30 SGPA : 5.6	Credit : 3.0 SGPA : 6.0
Semester 5	Semester 6		
Credit : 30 SGPA : 6.3	Credit : 30 SGPA : 8.0		

Thus, **CGPA** = $\Sigma (C_i \times S_i) / \Sigma C_i$

$$\text{i.e. CGPA} = \frac{30 \times 6.9 + 30 \times 7.8 + 30 \times 5.6 + 30 \times 6.0 + 30 \times 6.3 + 30 \times 8.0}{180} = 6.76$$

180

4.3. Grade Card:

At the end of each semester, a student will be given a 'Grade Card' which will contain Course Code, Title, Credits, Grades Awarded, Earned Credits and Earned Point secured by him/her in each course, together with his/her SGPA in that semester. On the completion of the programme, a Final Grade Card will be issued to the student, giving full semester-wise details about the absolute marks and grades obtained by him/her in each course together with his/her SGPA and also the CGPA and Division awarded to him/her.

4.4 Transcripts (Format): Based on the above recommendations on Letter grades, grade points, SGPA and CGPA, the College may issue the transcript for each semester and a consolidated transcript indicating the performance in all semesters.

4.4.1. Award of Advance Diploma / Diploma / Certificate as the case may be, would depend on acquisition of requisite credits as prescribed in the guidelines and not on the duration of the calendar time spent in pursuing the course.

4.4.2. The certificate for level would be awarded by the Sector Skill Council in terms of NSQF level. In addition to the evaluation by the institute the certificate of the level would be awarded by Sector Skill Council in terms of NSQF level. The evaluation of each level by SSC is mandatory for each student. i.e. for award of Advance Diploma / Diploma / Certificate. It will be added in the grade certificate issued by the institution.

4.4.3. In case, there is no Sector Skill Council for a specific trade, the assessment may be done by an allied Sector Council or the Industry partner.

4.4.4. Each of the awards shall specify within parenthesis, the Skill(s) specialization, such as:

- Advance Diploma (Green House Technology)
- Diploma (Green House Technology)
- Certificate (Green House Technology)
- Award should clearly mention the subjects (Skill and General) along with NSQF Level obtained.

4.4.5. The result of all the examinations will be declared through the College website.

- 4.4.6. The College may from time to time revise, amend and change the regulations or the curriculum, if formed necessary.
- 4.4.7. The students will be given the facilities of transfer of Credits earned in different recognized/approved Institutions of Higher Education in India and Abroad.
- 4.4.8. A student, who earns total specified credits according to the curriculum and fulfills such other conditions as may be mentioned in the curriculum of the programme, shall be issued the grade certificate by Punjabi University Patiala. He/she must also pay all College dues as per rules. Moreover, there should be no case of indiscipline pending against him/her.
- 4.4.9. If any student gets admission after concealing any fact or his/her certificates are found fake after verification or he/she misleads the institution as any front or because of any other reason, his/her admission will stand cancelled/ his/her result cancelled though he/she may have been declared pass.
- 4.4.10. In case the ordinance is silent about any issue, it will be decided by the College Principal in consultation with the Board of studies of concerned subject.
- 4.5. Division and Position: Division shall be awarded in the following manner, to the candidates on the basis of their respective CGPA:

CGPA 7.5 or more	1 st	Division with Distinction
CGPA 6.0 or more but less than 7.5	1 st	Division
CGPA 5.0 or more but less than 6.0	2 nd	Division
CGPA 3.5 or more but less than 5.0	3 rd	Division
Otherwise	Fail	

However, First, Second or Third position shall be awarded to the candidates, provided they meet the following conditions:

- 4.5.1. Rank shall be solely decided on the final CGPA, on completion of degree credit requirement.
- 4.5.2. The candidate has completed all the prescribed requirements, in the prescribed programme duration.
- 4.5.3. The candidate has passed / secured valid grades in all the prescribed courses, in the first attempt.
- 4.5.4. No disciplinary action is pending or has ever been lodged against him/her.
- 4.5.5. In case of an exceptional tie, both candidates shall be awarded the same rank.
- 4.6. College medal will be awarded to a candidate who secures first position in the College on the basis of the marks of all the six semesters taken together. The general rules and conditions of the College for the Award of medal/prizes etc. will be applicable in the award of College medal to the topper of this examination.
- 4.7. Equivalence: Percentage (P) equivalent to CGPA earned by a candidate may be calculated using the following formula:

$$P = \text{CGPA} \times 10$$

5. MALPRACTICES/UNFAIR MEANS

- 5.1 The following shall be deemed to be unfair means:
- 5.1.1 Leaving the Examination Hall without submitting the answer book to the invigilator or taking away, tearing off or otherwise disposing off the same or any part thereof.
 - 5.1.2 Using abusive language in the examination hall or writing the same in the answer sheet.
 - 5.1.3 Making an appeal to the evaluator through answer sheet.
 - 5.1.4 Possession by examinee or having access to books, notes, papers, mobile or any other electronic material which can prove to be helpful in the exam.
 - 5.1.5 Any action on the part of candidate at an examination trying to get undue advantage in the performance at examinations or trying to help another, or derive the same.
 - 5.1.6 Impersonating for a candidate in the examination.
 - 5.1.7 Intimidating, threatening, manhandling, using violence, show of force in any form against any invigilator or any person on duty, creating disturbance to the smooth conduct of the examination.
 - 5.1.8 Any other action which the Controller Examination / Chief Controller deem fit to be a case of UMC.
- 5.2.** In case the student is found to have used any of the above Unfair means:
- 5.2.1 His/her answer book shall be seized and He/She will be given a new answer sheet.
 - 5.2.2 Invigilator shall submit a detailed report along with the answer book of the student and the related material, if any, to the Centre Superintendent who will subsequently hand it over to Controller Examination.
 - 5.2.3 Written statement to this effect shall be obtained from the student by the Centre Superintendent. In case the student refuses to do the same, the fact of refusal must be recorded.
 - 5.2.4 The student reported to have used unfair means shall be allowed to appear in the subsequent papers. However, no marks would be awarded for the paper in which unfair means were used.
 - 5.2.5 The Principal shall refer the cases of malpractices in Mid Semester tests, House Tests and End Semester Examinations, to an Unfair Means Committee, constituted by him/her for the purpose. Such committee shall follow the approved scales of punishment. The Principal shall take necessary action, against the erring students based on the recommendations of the committee.
- 5.3 The involvement of the Staff, who are in charge of conducting examinations, evaluating examination papers and preparing/keeping records of documents relating to the examinations if involved in such acts (inclusive of providing incorrect or misleading information) that infringe upon the course of natural justice to one and all concerned at the examination shall be viewed seriously and recommended for award of appropriate punishment after enquiry.

6. **ATTENDANCE REGULATIONS & CONDONATION:**

- 6.1 A student shall be eligible to appear for end semester examinations, if he/she acquires a minimum of 75% of attendance in each subject.
- 6.2 Request to the Principal for condonation of shortage of attendance after the recommendation of the Head of department will be forwarded to Lecture Shortage condonation Committee. The committee can finally condone the shortage in aggregate up to 15% on medical grounds in each semester.
- 6.3 Any student representing the Institute/ University/ State/ Nation in any Academic/ Sports/ Cultural/Extra Co curricular/ NSS/NCC or any other event shall be considered on duty. His/ Her shortage of lectures shall be condoned, provided that the student is permitted in writing by the Principal/Head of Department concerned and a certificate to this effect signed by the competent authority where the student attended the event is taken.
- 6.4 A Student will not be promoted to the next semester unless he/she satisfies the attendance requirement of the present semester as applicable.
- 6.5 Students whose shortage of attendance is not condoned in any semester are not eligible to take their end semester examination of that particular semester and their registration for examination shall stand cancelled and no fee shall be refunded.
- 6.6 Late college students: A candidate, who has completed the prescribed course of instructions for a semester but has not appeared in the examination or having appeared, has failed in the examination, may appear as a late college student within the prescribed period.
- 6.7 Applications for admission to the examination shall be made on the prescribed form attested by the competent authority as per the college rules.
- 6.8 Amount of examination fee to be paid by a candidate for each semester shall be as fixed by the College from time to time.
- 6.9 The last date by which examination forms and fees must reach the College office shall be as follows.

Semester	Without late fee	With late fee of Rs. 800/-	With late fee of Rs.1200/-	With late fee of Rs.5000/-	With late Fee of Rs. 10,000
Nov./Dec. (Odd)	Sept. 30	Oct.15	Oct. 21	Oct. 31	Nov. 10*
April/May(Even)	Feb. 28	March 15	March 21	March 31	April 15*

***Note: No Examination Form will be accepted after the prescribed date.**

SYLLABUS
ADVANCE DIPLOMA IN GREEN HOUSE TECHNOLOGY
OUTLINE OF PAPERS AND TESTS
FOR
Part- I (Semester I)

Code	Title of Paper	Credits (1 credit = 1hour/week) Total weeks=15	College Examination	Internal Assessment	Max. Marks	Exam. Duration Hours
DGHT 111/111 (A) (Gen. Edu)	Punjabi Compulsory / Elementary Punjabi (Theory)	4+0	70	30	100	3
DGHT 112 (Gen. Edu)	English Communication Skills (Theory)	4+0	70	30	100	3
DGHT 113 (Gen. Edu)	Basics of Agriculture-I (Theory)	4+0	70	30	100	3
DGHT 114 (Vocational)	Designing and layout of green house (Theory)	4+0	70	30	100	3
DGHT 115 (Vocational)	Installation and maintenance of green house structures (Theory)	4+0	70	30	100	3
DGHT 116 (Vocational)	Practical pertaining to Designing and layout of green house (Practical)	0+5	70	30	100	3
DGHT 117 (Vocational)	Practical pertaining to Installation and maintenance of green house structures (Practical)	0+5	70	30	100	3
	Total	Credits 20 + 10 = 30	490	210	700	21

1. The breakup of marks for the internal assessment for theory Subjects will be as under:
 - i. Average of both internal examinations 12 Marks
 - ii. Attendance 6 Marks
 - iii. Written Assignment/ Project work/ Seminar/Viva 12 Marks

2. The breakup of marks for the Practical Subjects will be as under:
 - i. Internal Assessment 30 Marks
 - ii. Practical File and Viva-voce (External) 20 Marks
 - iii. Practical performance and write-up (External) 50 Marks

ADVANCE DIPLOMA IN GREEN HOUSE TECHNOLOGY
Part- I (Semester II)

Code	Title of Paper	Credits	College Examination	Internal Assessment	Max. Marks	Exam. Duration Hours
DGHT 221/221 (A) (Gen. Edu)	Punjabi / Elementary Punjabi (Theory)	4+0	70	30	100	3
DGHT 222 (Gen. Edu)	Communication Skills (English) (Theory)	4+0	70	30	100	3
DGHT 223 (Gen. Edu)	Basics of Agriculture-II (Theory)	4+0	70	30	100	3
DGHT 224 (Vocational)	Process Machineries for Seed Processing (Theory)	4+0	70	30	100	3
DGHT 225 (Vocational)	Seed Processing Unit and Team Management (Theory)	4+0	70	30	100	3
DGHT 226 (Vocational)	Practical pertaining to Process Machineries for Seed Processing (Practical)	0+5	70	30	100	3
DGHT 227 (Vocational)	Practical pertaining to Seed Processing Unit and Team Management (Practical)	0+5	70	30	100	3
	Total	Credits 20+10 = 30	490	210	700	21

1. The breakup of marks for the internal assessment for Theory Subjects will be as under:
 - i. Average of both internal examinations 12 Marks
 - ii. Attendance 6 Marks
 - iii. Written Assignment/ Project work/ Seminar/Viva 12 Marks

2. The breakup of marks for the Practical Subjects will be as under:
 - i. Internal Assessment 30 Marks
 - ii. Practical File and Viva-voce (External) 20 Marks
 - iii. Practical performance and write-up (External) 50 Marks

SEMESTER-I
DGHT 111 (Gen. Edu)

ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ (Punjabi Compulsory)

ਕੈਡਿਟ : 4

ਬੀ. ਵਾਕ ਇੰਨ ਐਗਰੀਕਲਚਰ, ਬੀ. ਵਾਕ ਇੰਨ ਸਾਫਟ ਵੇਅਰ ਡਿਵੈਲਪਮੈਂਟ, ਬੀ. ਵਾਕ ਇੰਨ ਆਟੋ ਮਬਾਈਲ, ਬੀ. ਵਾਕ ਇੰਨ ਫੂਡ ਪ੍ਰੋਸੈਸਿੰਗ ਅਤੇ ਇੰਜੀਨੀਅਰਿੰਗ, ਡਿਪਲੋਮਾ ਇਨ ਗਰੀਨ ਹਾਊਸ ਟੈਕਨਾਲੋਜੀ ਅਤੇ ਡਿਪਲੋਮਾ ਇਨ ਆਟੋ ਇਲੈਕਟਰੀਕਲ ਐਂਡ ਇਲੈਕਟਰੋਨਿਕਸ, ਸਾਰੇ ਕੋਰਸਾਂ ਦੇ ਭਾਗ ਪਹਿਲਾ ਲਈ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਵਿਸ਼ੇ ਦਾ ਸਿਲੇਬਸ

ਸਮੈਸਟਰ-1

(ਸੈਸ਼ਨ 2016-17, 2017-18)

ਕੁੱਲ ਅੰਕ 100

ਲਿਖਤੀ ਪਰੀਖਿਆ : 70 ਅੰਕ

ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ : 30 ਅੰਕ

ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ ਦਾ ਸਮਾਂ : 3 ਘੰਟੇ

ਵਿਸ਼ੇ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 35

ਲਿਖਤੀ ਪਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 24

ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 11

ਸਿਲੇਬਸ ਅਤੇ ਪਾਠ ਪੁਸਤਕਾਂ

ਭਾਗ-ੳ :- ਕਥਾ-ਵਾਰਤਾ, ਸੰਪਾਦਕ- ਡਾ. ਗੁਰਮੁਖ ਸਿੰਘ, ਡਾ. ਮਨਜੀਤ ਕੌਰ.

(ਨੋਟ: ਕਥਾ-ਵਾਰਤਾ ਪੁਸਤਕ ਬੋਰਡ ਆਫ ਸਟੱਡੀਜ਼ ਵੱਲੋਂ ਕੇਵਲ ਸੈਸ਼ਨ 2016-17 ਲਈ ਪਾਸ ਕੀਤੀ ਗਈ ਹੈ ਅਤੇ ਬੋਰਡ ਆਫ ਸਟੱਡੀਜ਼ ਵੱਲੋਂ ਇਹ ਵੀ ਪਾਸ ਕੀਤਾ ਗਿਆ ਹੈ ਕਿ ਅਗਲੇ ਸੈਸ਼ਨ 2017-18 ਲਈ ਵਿਭਾਗ ਵੱਲੋਂ ਤਿਆਰ ਕੀਤੀ ਪੁਸਤਕ ਲਗਾਈ ਜਾਵੇਗੀ।

ਭਾਗ-ਅ :- ਪਿੰਜਰ- ਲੇਖਿਕਾ ਅੰਮ੍ਰਿਤਾ ਪ੍ਰੀਤਮ

ਭਾਗ- ਬ :- ਵਿਹਾਰਕ ਵਿਆਕਰਨ

(ਬ.1) ਪੰਜਾਬੀ ਧੁਨੀਆਂ: ਖੰਡੀ ਧੁਨੀਆਂ ਦੀ ਪਰਿਭਾਸ਼ਾ, ਸਵਰਾਂ ਅਤੇ ਵਿਅੰਜਨਾਂ ਦੀ ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਉਚਾਰਨ ਅੰਗਾਂ, ਉਚਾਰਨ ਸਥਾਨ ਅਤੇ ਉਚਾਰਨ ਵਿਧੀ ਅਨੁਸਾਰ ਵਰਗੀਕਰਣ। ਇਹਨਾਂ ਦੀ ਸ਼ਬਦਾਂ ਵਿਚ ਵਰਤੋਂ ਅਤੇ ਧੁਨੀਆਤਮਕ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ।

(ਬ.2) ਕਥਾ ਕਿਰਸਾਣੀ ਦੇ ਸੰਦਾਂ ਦੇ ਸੰਦਰਭ 'ਚ: ਡਾਕੂਮੈਂਟਰੀ (ਪੰਜਾਬੀ ਅਕਾਦਮੀ ਦਿੱਲੀ)

(ਬ.3) ਸਥਾਨਕ ਕਾਲਜ ਦੇ ਪੰਜਾਬੀ ਵਿਭਾਗ ਵੱਲੋਂ ਪ੍ਰਕਾਸ਼ਿਤ ਕੀਤੇ ਗਏ ਤਕਨੀਕੀ ਸ਼ਬਦਾਵਲੀ ਕੋਸ਼ ਦੇ ਆਪਣੀ ਆਪਣੀ ਫੈਕਲਟੀ ਨਾਲ ਸਬੰਧਤ ਭਾਗ ਦੇ ਪਹਿਲੇ 100 ਸ਼ਬਦਾਂ ਦਾ ਅੰਗਰੇਜ਼ੀ ਤੋਂ ਪੰਜਾਬੀ ਵਿਚ ਅਨੁਵਾਦ।

(ਬ.4) ਰਿਪੋਰਟ : ਪਰਿਭਾਸ਼ਾ, ਕਿਸਮਾਂ ਅਤੇ ਲਿਖਣ ਦੀ ਵਿਧੀ

ਭਾਗ-ਸ : ਭਾਗ-ੳ, ਅ, ਅਤੇ ਬ ਵਾਲੇ ਭਾਗਾਂ ਵਿੱਚੋਂ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ।

ਅੰਕ ਵੰਡ ਅਤੇ ਪੇਪਰ ਸੈਟਰ ਲਈ ਹਦਾਇਤਾਂ

1. ਸਿਲੇਬਸ ਦੇ ਸਾਰੇ ਭਾਗਾਂ ਵਿੱਚੋਂ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।

2. ਪੇਪਰ ਨੂੰ ਚਾਰ ਭਾਗਾਂ ਓ, ਅ, ਬ ਅਤੇ ਸ ਵਿੱਚ ਵੰਡਿਆ ਜਾਵੇਗਾ।

3. ਭਾਗ ਓ ਵਿੱਚੋਂ ਕਿਸੇ ਕਹਾਣੀ ਦੇ ਵਿਸ਼ਾ ਵਸਤੂ/ ਸਮੱਸਿਆ/ ਪਾਤਰਾਂ ਦੇ ਆਪਸੀ ਸਬੰਧ ਅਤੇ ਕਹਾਣੀ ਵਿਚ ਰੋਲ ਸਬੰਧੀ ਪ੍ਰਸ਼ਨ ਪੁੱਛਿਆ ਜਾਵੇਗਾ।

(ਤਿੰਨ ਵਿੱਚੋਂ ਇਕ) ਅੰਕ=12

4. ਭਾਗ ਅ ਵਿੱਚੋਂ ਨਾਵਲ ਦੇ ਵਿਸ਼ਾ-ਵਸਤੂ/ ਸਮੱਸਿਆ ਅਤੇ ਪਾਤਰ ਚਿਤਰਨ ਸਬੰਧੀ ਪ੍ਰਸ਼ਨ ਪੁੱਛਿਆ ਜਾਵੇਗਾ।

(ਤਿੰਨ ਵਿੱਚੋਂ ਕੋਈ ਇਕ) ਅੰਕ = 12

5. ਵਿਆਕਰਨ ਵਾਲੇ ਭਾਗ ਨਾਲ ਸਬੰਧਤ ਵਰਣਾਤਮਕ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।

(ਤਿੰਨ ਵਿੱਚੋਂ ਕੋਈ ਇਕ) ਅੰਕ=12

6. ਤਕਨੀਕੀ ਸ਼ਬਦਾਵਲੀ ਵਿਸ਼ਾ ਕੋਸ਼ ਦੇ ਆਪਣੀ- ਆਪਣੀ ਫੈਕਲਟੀ ਨਾਲ ਸਬੰਧਤ ਭਾਗ ਦੇ ਪਹਿਲੇ 100 ਤਕਨੀਕੀ ਸ਼ਬਦਾਂ ਦੇ ਅੰਗਰੇਜ਼ੀ ਤੋਂ ਪੰਜਾਬੀ ਵਿਚ ਅਨੁਵਾਦ ਕਰਨ ਸਬੰਧੀ।

(ਪੱਚੀ ਵਿੱਚੋਂ ਕੋਈ ਵੀਹ) ਅੰਕ=10

7. ਰਿਪੋਰਟ ਦੀ ਪਰਿਭਾਸ਼ਾ, ਕਿਸਮਾਂ ਅਤੇ ਲਿਖਣ ਦੀਆਂ ਵਿਧੀਆਂ ਸਬੰਧੀ।

(ਦੋ ਵਿੱਚੋਂ ਇਕ) ਅੰਕ=4

8. ਭਾਗ ਸ ਦੇ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ 10 ਪ੍ਰਸ਼ਨ ਤਿੰਨਾਂ ਭਾਗਾਂ ਵਿੱਚੋਂ ਬਰਾਬਰ ਪੁੱਛੇ ਜਾਣਗੇ। ਵਿਦਿਆਰਥੀ ਨੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਸੰਖੇਪ ਵਿਚ ਉੱਤਰ ਦੇਣੇ ਹੋਣਗੇ ਅਤੇ ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ 2 ਅੰਕ ਹੋਣਗੇ। (ਨੋਟ: ਪੇਪਰ ਵਿਚ ਭਾਗ ਬ ਦੇ ਬ.2, ਬ.3 ਅਤੇ ਬ.4 ਵਿੱਚੋਂ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ ਨਹੀਂ ਪੁੱਛੇ ਜਾਣਗੇ।)

10x2=20 ਅੰਕ

ਇੰਟਰਨਲ ਅਸੈਸਮੈਂਟ

ਕੁੱਲ ਅੰਕ= 30

1. ਕਲਾਸ ਹਾਜ਼ਰੀ/ ਘਰੇਲੂ ਇਮਤਿਹਾਨ/ ਅਸਾਈਨਮੈਂਟ

2.1 ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਕਥਾ ਕਿਰਸਾਣੀ ਦੇ ਸੰਦਾਂ ਦੇ ਸੰਦਰਭ 'ਚ ਡਾਕੂਮੈਂਟਰੀ ਦਿਖਾਈ ਜਾਵੇਗੀ ਅਤੇ ਉਹ ਵੱਖ ਵੱਖ ਪੱਖਾਂ ਤੋਂ ਉਸ ਦੇ ਫਿਲਮਾਂਕਣ ਨਾਲ ਸਬੰਧਤ ਰਿਪੋਰਟ ਤਿਆਰ ਕਰਨਗੇ।

ਜਾਂ
 2.2 ਵਿਦਿਆਰਥੀ ਕਾਲਜ ਵਿਚ ਹੋਏ ਸਮਾਗਮਾਂ ਨਾਲ ਸਬੰਧਤ ਚਿੱਤਰਾਂ ਸਮੇਤ ਪ੍ਰੈਸ ਨੋਟ ਦੀ ਫਾਇਲ ਤਿਆਰ ਕਰਨਗੇ ਜਾਂ ਉਹਨਾਂ ਨਾਲ ਸਬੰਧਤ ਪੰਜਾਬੀ ਵਿੱਚ ਪੀ. ਪੀ. ਟੀ. ਪ੍ਰੋਜੈਕਟ ਦੇਣਗੇ। ਉਪਰੋਕਤ ਕਾਰਜ ਲਈ ਸਮਾਗਮਾਂ ਦੀ ਗਿਣਤੀ ਕਲਾਸ ਨਾਲ ਸਬੰਧਤ ਅਧਿਆਪਕ ਦੁਆਰਾ ਨਿਰਧਾਰਤ ਕੀਤੀ ਜਾਵੇਗੀ।

ਸਹਾਇਕ ਪਾਠ- ਸਮੱਗਰੀ

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4. ਬਲਦੇਵ ਸਿੰਘ ਚੀਮਾ, **ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਗਿਆਨ ਅਤੇ ਵਿਆਕਰਨ** (ਤਕਨੀਕੀ ਸ਼ਬਦਾਵਲੀ ਦਾ ਵਿਸ਼ਾ ਕੋਸ਼) ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ 2000.
5. ਬੂਟਾ ਸਿੰਘ ਬਰਾੜ, **ਪੰਜਾਬੀ ਵਿਆਕਰਨ: ਸਿਧਾਂਤ ਤੇ ਵਿਹਾਰ**, ਚੇਤਨਾ ਪ੍ਰਕਾਸ਼ਨ, ਲੁਧਿਆਣਾ, 2008.
6. ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ ਸਿੰਘ, **ਸਿਧਾਂਤਕ ਭਾਸ਼ਾ ਵਿਗਿਆਨ**, ਮਦਾਨ ਪਬਲਿਸਰਜ਼, ਪਟਿਆਲਾ, 2002.
7. **ਜਨ ਸਾਹਿਤ**, ਅੰਮ੍ਰਿਤਾ ਪ੍ਰੀਤਮ, ਵਿਸ਼ੇਸ਼ ਅੰਕ, ਅਕਤੂਬਰ-ਨਵੰਬਰ 2006, ਭਾਸ਼ਾ ਵਿਭਾਗ, ਪੰਜਾਬ.
8. ਪ੍ਰੋ. ਬ੍ਰਹਮਜਗਦੀਸ਼ ਸਿੰਘ, ਪ੍ਰੋ. ਸ਼ੈਰੀ ਸਿੰਘ, **ਅੰਮ੍ਰਿਤਾ ਪ੍ਰੀਤਮ ਜੀਵਨ ਤੇ ਰਚਨਾ**, ਵਾਰਿਸ ਸ਼ਾਹ ਫਾਊਂਡੇਸ਼ਨ, ਅੰਮ੍ਰਿਤਸਰ 2008

ਨੋਟ:1. ਤਿੰਨ ਸਾਲਾ ਡਿਗਰੀ ਕੋਰਸਾਂ ਵਿਚ ਤਿੰਨ ਸਾਲ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਪੜ੍ਹਨ ਵਾਲੇ ਅਤੇ ਕੇਵਲ ਇਕ ਸਾਲ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਪੜ੍ਹਨ ਵਾਲੇ ਸਾਰੇ ਵਿਦਿਆਰਥੀਆਂ ਲਈ ਭਾਗ ਪਹਿਲਾ, ਸਮੈਸਟਰ ਪਹਿਲਾ ਦਾ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਦਾ ਸਿਲੇਬਸ ਉਪਰੋਕਤ ਹੋਵੇਗਾ।

2. Only those students who have not studied Punjabi up to matriculation can opt for Elementary Punjabi. Other students will study compulsory Punjabi.

DGHT 111 A (Gen. Edu)
ਮੁੱਢਲਾ ਗਿਆਨ (Elementary Punjabi)

ਕੈਡਿਟ : 4

ਬੀ. ਵਾਕ ਇੰਨ ਐਗਰੀਕਲਚਰ, ਬੀ. ਵਾਕ ਇੰਨ ਸਾਫਟ ਵੇਅਰ ਡਿਵੈਲਪਮੈਂਟ, ਬੀ. ਵਾਕ ਇੰਨ ਆਟੋ ਮਬਾਈਲ, ਬੀ. ਵਾਕ ਇੰਨ ਫੂਡ ਪ੍ਰੋਸੈਸਿੰਗ ਅਤੇ ਇੰਜੀਨੀਅਰਿੰਗ, ਡਿਪਲੋਮਾ ਇਨ ਗਰੀਨ ਹਾਊਸ ਟੈਕਨਾਲੋਜੀ ਅਤੇ ਡਿਪਲੋਮਾ ਇਨ ਆਟੋ ਇਲੈਕਟਰੀਕਲ ਐਂਡ ਇਲੈਕਟਰੋਨਿਕਸ, ਸਾਰੇ ਕੋਰਸਾਂ ਦੇ ਭਾਗ ਪਹਿਲਾ ਲਈ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਵਿਸ਼ੇ ਦਾ ਸਿਲੇਬਸ
ਸਮੈਸਟਰ-1

ਕੁੱਲ ਅੰਕ 100
ਲਿਖਤੀ ਪਰੀਖਿਆ : 70 ਅੰਕ
ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ : 30 ਅੰਕ
ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ ਦਾ ਸਮਾਂ : 3 ਘੰਟੇ

ਵਿਸ਼ੇ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 35
ਲਿਖਤੀ ਪਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 24
ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 11

ਭਾਗ ਓ

ਭਾਗ (ਓ.1) ਗੁਰਮੁਖੀ ਵਰਣਮਾਲਾ ਤੇ ਲੇਖਣ ਪ੍ਰਬੰਧ

ਅੱਖਰ ਸਿੱਖਿਆ: ਤਰਤੀਬਵਾਰ ਤੇ ਭੁਲਵੇਂ ਅੱਖਰ।

(ਓ.2) ਅੱਖਰ ਬਣਤਰ : ਅੱਖਰ ਰੂਪ ਅਤੇ ਲੇਖਣ ਦੇ ਨਿਯਮ।

12 ਅੰਕ

ਭਾਗ ਅ

ਗੁਰਮੁਖੀ ਅੱਖਰ ਤੇ ਪੰਜਾਬੀ ਧੁਨੀਆਂ ਦਾ ਪ੍ਰਬੰਧ:

- (ੳ) ਸਵਰ ਤੇ ਵਿਅੰਜਨ : ਵਰਗੀਕਰਨ ਤੇ ਸਿਧਾਂਤ ਤੇ ਉਚਾਰਨ
(ਅ) ਸਵਰ ਸੂਚਕ ਅੱਖਰਾਂ ਤੇ ਧੁਨੀਆਂ ਦੀ ਪਛਾਣ ਦੀ ਵਰਤੋਂ।
(ੲ) ਵਿਅੰਜਨ ਸੂਚਕ ਅੱਖਰਾਂ ਅਤੇ ਧੁਨੀਆਂ ਦੀ ਪਛਾਣ ਤੇ ਵਰਤੋਂ।
(ਸ) ਲਗਾਂ ਮਾਤਰਾ ਦੀ ਪਛਾਣ ਤੇ ਵਰਤੋਂ।
(ਹ) ਲਗਾਖਰਾਂ ਦੀ ਪਛਾਣ।

12 ਅੰਕ

ਭਾਗ -ੲ

(1) ਲਿਪੀ ਦੇ ਅੱਖਰਾਂ ਦੀ ਵਰਤੋਂ ਦੇ ਨਿਯਮ

- (ੳ) ਸਵਰ ਸੂਚਕ ਅੱਖਰਾਂ ਦੀ ਪਛਾਣ ਤੇ ਵਰਤੋਂ।
(ਅ) ਮਾਤਰਾ ਅਤੇ ਸਵਰ ਵਾਹਕਾਂ ਦੀ ਸਾਂਝੀ ਵਰਤੋਂ।
(ੲ) ਮਾਤਰਾ ਦੀ ਵਿਅੰਜਨ ਸੂਚਕਾਂ ਨਾਲ ਵਰਤੋਂ।
(ਸ) ਸਵਰ ਵਾਹਕਾਂ ਦੀ ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਸਵਰ ਧੁਨੀਆਂ ਦਾ ਸਵਰ ਵਾਹਕਾਂ ਅਨੁਸਾਰ ਵਰਗੀਕਰਨ।
(ਹ) ਲਗਾਖਰ - ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਇਹਨਾਂ ਦੀ ਸਵਰ ਧੁਨੀਆਂ ਨਾਲ ਵਰਤੋਂ।
(ਕ) ਪੈਰ ਵਿਚ ਪੈਣ ਵਾਲੇ ਵਰਣਾਂ ਦੀ ਪਛਾਣ ਤੇ ਵਰਤੋਂ।

12 ਅੰਕ

ਭਾਗ ਸ

ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ ਨਾਲ ਜਾਣ ਪਛਾਣ

- (ੳ) ਗਿਣਤੀ (1 ਤੋਂ 50 ਤੱਕ)
(ਅ) ਹਫ਼ਤੇ ਦੇ ਦਿਨ
(ੲ) ਅੰਗਰੇਜ਼ੀ ਮਹੀਨਿਆਂ ਦੇ ਨਾਂ
(ਸ) ਰੰਗਾਂ ਦੇ ਨਾਂ
(ਹ) ਫਲਾਂ-ਸਬਜ਼ੀਆਂ ਦੇ ਨਾਂ
(ਕ) ਪਸ਼ੂ- ਪੰਛੀਆਂ ਦੇ ਨਾਂ
(ਖ) ਨਾਨਕੇ ਅਤੇ ਦਾਦਕੇ ਘਰ ਦੇ ਰਿਸ਼ਤਿਆਂ ਦੇ ਨਾਂ
(ਗ) ਆਵਾਜਾਈ ਦੇ ਸਾਧਨਾਂ ਦੇ ਨਾਂ
(ਘ) ਘਰੇਲੂ ਵਸਤਾਂ ਦੀ ਸ਼ਬਦਾਵਲੀ

12 ਅੰਕ

ਭਾਗ-ਹ ਸਾਰੇ ਸਿਲੇਬਸ ਤੇ ਅਧਾਰਿਤ 11 ਆਬਜੈਕਟਿਵ ਟਾਈਪ ਪ੍ਰਸ਼ਨ।

11*2=22 ਅੰਕ

ਅੰਕ ਵੰਡ ਅਤੇ ਪੇਪਰ ਸੈਟਰ ਲਈ ਹਦਾਇਤਾਂ

- ਵਿਦਿਆਰਥੀ ਪਹਿਲੀ ਵਾਰ ਗੁਰਮੁਖੀ ਸਿਖ ਰਹੇ ਹਨ। ਹੋ ਸਕਦਾ ਹੈ ਵਿਦਿਆਰਥੀ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਤੋਂ ਅਨਜਾਣ ਹੋਣ। ਸੋ ਪ੍ਰਸ਼ਨਾਂ ਦਾ ਪੱਧਰ ਵਿਦਿਆਰਥੀਆਂ ਦੀ ਭਾਸ਼ਾ ਸਿੱਖਣ ਦੀ ਸੀਮਾ ਨੂੰ ਧਿਆਨ ਵਿਚ ਰੱਖ ਕੇ ਨਿਸ਼ਚਿਤ ਕੀਤਾ ਜਾਵੇ।
- ਸਰਲ ਅਤੇ ਸਪੱਸ਼ਟ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣ।

3. ਵਰਣਾਤਮਕ ਪ੍ਰਸ਼ਨ ਨਾ ਪੁੱਛੇ ਜਾਣ।
4. ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਲਿਪੀ ਦਾ ਬੋਧ ਕਰਵਾਉਣ ਲਈ ਧੁਨੀਆਂ, ਲਿਪੀ ਚਿੰਨ੍ਹਾਂ ਦੀ ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ ਸਬੰਧੀ ਸੰਖੇਪ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣ।
5. ਲੋੜ ਅਨੁਸਾਰ ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਛੋਟੇ ਜਾਂ ਚੋਣ ਦੇਣੀ ਲਾਜ਼ਮੀ ਹੈ।
6. ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ ਦੇ ਸਾਰੇ ਭਾਗਾਂ ਵਿੱਚੋਂ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣ। ਲੋੜ ਅਨੁਸਾਰ ਛੋਟੇ ਜਾਂ ਚੋਣ ਦੇਣੀ ਲਾਜ਼ਮੀ ਹੈ।

ਇੰਟਰਨਲ ਅਸੈਸਮੈਂਟ

ਕੁੱਲ 30 ਅੰਕ

1. ਕਲਾਸ ਹਾਜ਼ਰੀ/ਘਰੇਲੂ ਇਮਤਿਹਾਨ/ਅਸਾਈਨਮੈਂਟ
2. ਅਧਿਆਪਕ ਵੱਲੋਂ ਵਿਦਿਆਰਥੀ ਦੇ ਪੱਧਰ ਅਨੁਸਾਰ ਪੰਜਾਬੀ ਵਿਚ ਦਿੱਤਾ ਗਿਆ ਕੋਈ ਵੀ ਕਾਰਜ

ਸਹਾਇਕ ਪਾਠ ਸਮੱਗਰੀ

1. ਸਤਿਨਾਮ ਸਿੰਘ ਸੰਧੂ, **ਆਓ ਪੰਜਾਬੀ ਸਿਖੀਏ**, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 2009. (ਹਿੰਦੀ ਤੋਂ ਪੰਜਾਬੀ ਸਿੱਖਣ ਲਈ)।
2. ਸਤਿਨਾਮ ਸਿੰਘ ਸੰਧੂ, **ਗੁਰਮੁਖੀ ਸਿੱਖੋ**, ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 2011. (ਅੰਗਰੇਜ਼ੀ ਤੋਂ ਪੰਜਾਬੀ ਸਿੱਖਣ ਲਈ)।
3. ਸੀਤਾ ਰਾਮ ਬਾਹਰੀ, **ਪੰਜਾਬੀ ਸਿਖੀਏ**, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 2002. (ਹਿੰਦੀ)।
4. ਰਾਜਿੰਦਰ ਸਿੰਘ, **ਪੰਜਾਬੀ ਗਿਆਨ ਸੀ.ਡੀ.**(ਕੰਪਿਊਟਰ ਐਪਲੀਕੇਸ਼ਨ ਟੂ-ਲਰਨ ਐਂਡ ਟੀਚ ਪੰਜਾਬੀ), ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 2011.
5. Hardev Bahri, **Teach Yourself Punjabi**, Publication Bureau, Punjabi University, Patiala, 2011.
6. Henry A.Gleason and Harjeet Singh Gill, **A Start in Punjabi**, Punjabi University, Patiala, 1997.
7. Ujjal Singh Bahri and Paramjit Singh Walia, **Introductory Punjabi**, Punjabi University, Patiala. 2011.

ਨੋਟ: Only those students who have not studied Punjabi up to matriculation can opt for Elementary Punjabi. Other students will study compulsory Punjabi.

DGHT 112 (Gen. Edu)
Semester I
English Communication Skills
This course will consist the following credit structure
(Credits:4 Theory)

Time allowed: 3 hours
Periods per week: 4
Pass Marks: 35%

Max Marks: 100
External: 70 marks
Internal Assessment: 30 marks

Section-A

Text Prescribed: *Prose Parables*, Orient BlackSwan, 2013

The following stories from the above volume have been prescribed:

1. Kabuliwallah: Rabindranath Tagore
2. The Eyes are Not Here: Ruskin Bond
3. Grief: Anton Chekhov
4. Uncle Podger Hangs a Picture: Jerome K. Jerome
5. The Doctor's Word: R.K. Narayan
6. Green Parrots in a Cage: Gopi Gauba
7. Dusk: Saki
8. The Face on the Wall: E. V. Lucas

Testing:

- Q1. (a) One essay-type question with an internal alternative on summary, central idea, character, key incidents, and theme in about 200-250 words. 10 marks
- (b) Five short answer questions to be attempted out of the given eight from the prescribed text in about 30 words each. 2X5= 10 marks

Section –B

Q.2 Writing Skills:

1. Letter Writing: Personal Letters and Official Letters

Testing: One letter to be attempted out of the given two. 10 marks

2. Paragraph Writing

Testing: One paragraph of about 200-250 words to be composed out of the given two topics. 10 marks

Q.3 Grammar and Vocabulary

(a) Grammar:

Prescribed Text: *Oxford Practice Grammar* by John Eastwood, Oxford University Press, 1999

1. Ex. 1-20 10 marks

Attempt any 10 sentences out of the given 12

2. Ex -21-39 10 marks

Attempt any 10 sentences out of the given 12.

(b) Vocabulary:

Prescribed Text: *Student's Companion* by Wilfred D Best, Harper Collins Publishers, 1984

1. Antonyms Pages 128 -130

Attempt any 5 antonyms out of the given 7.

2. Synonyms Pages 132-134

Attempt any 5 synonyms out of the given 7 5+5= 10 marks

Suggested Reading:

The Written Word – Vandana R Singh (Oxford University Press)

DGHT-113: BASIC OF AGRICULTURE-I
(CREDITS: 4 Theory)

Time allowed: 3 hrs
Period per week: 04
Pass marks: 35%

Max. Marks: 100
External Assessment: 70
Internal Assessment: 30

Instructions for Paper-Setters/Examiners

The question paper covering the entire course shall be divided into three sections as follows:

SECTION-A

It will consist of essay type questions. Four questions shall be set by the examiner from Unit-I of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weightage of the section shall be 20 marks.

SECTION-B

It will consist of essay type questions. Four questions shall be set by the examiner from Unit-II of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weightage of the section shall be 20 marks.

SECTION-C

It will consist of 15 very short answer questions from entire syllabus. This section is compulsory. Each question shall carry 2 marks total weightage of the section shall be 30 marks

Unit-I

Fundamentals of green house technology: Introduction of greenhouse, Type of soil, World scenario and status in India.

Classification of green house- Classification based on suitability and cost, classification as per type of structure, as per glazing, based on number of spans, based on environmental control. Nursery operation in green house, Methods of irrigation in green house.

Unit-II

Crop management in green house- Nursery Establishment, Transplanting, Training / trellising, Dibudding/ De-Suckering, Bud Nipping, Leaf Trimming and defoliation, Top Dressing, Problem management in green house cultivation.

Water in the Greenhouse- Irrigation system, water quality, water sanitation.

Light and Temperature in the Greenhouse- Crops Recommended in the Green House, advantages and disadvantages. Photosynthesis, photoperiodism, temperature etc.

Suggested reading:

1. Pradeepkumar T, Suma B, Jyothibhaskar & Satheesan KN. 2007. Management of Horticultural Crops. Parts I, II by New India Publications.
2. Pant V, Nelson. 1991. Green House Operation and Management . Bali Publ.
3. Arora, J.S. (1990). Introductory Ornamental Horticulture. Kalyani Publishers.
4. George Acquaah. Horticulture, Principles and Practices . Eastern Economy Eddition.
5. Iyengar Gopalswamy. Complete Gardening in India
6. Alex Lauric and Victor h Ries. Floriculture, Fundamentals and Practices . Agrobios, India
7. Ramachandrappa and Nanjappa. Fertigation Technology, Agrobios, India
8. Prasad S and Kumar U . Green House Management for Horticultural Crops. Agrobios India

DGHT-114: DESIGNING AND LAYOUT OF GREEN HOUSE (CREDITS: 4 Theory)

Time allowed: 3 hrs
Period per week: 04
Pass marks: 35%

Max. Marks: 100
External Assessment: 70
Internal Assessment: 30

Instructions for Paper-Setters/Examiners

The question paper covering the entire course shall be divided into three sections as follows:

SECTION-A

It will consist of essay type questions. Four questions shall be set by the examiner from Unit-I of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weightage of the section shall be 20 marks.

SECTION-B

It will consist of essay type questions. Four questions shall be set by the examiner from Unit-II of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weightage of the section shall be 20 marks.

SECTION-C

It will consist of 15 very short answer questions from entire syllabus. This section is compulsory. Each question shall carry 2 marks total weightage of the section shall be 30 marks

Unit-I

Site selection and layout - Selection of site and location, Survey of land, Site layout, Adequate Land Levelling, measuring the angles as part of laying out the green house structures, Orientation, Head house and Storage Facilities, Interior layout

Construction-Foundations, Floors, Frame.

Structural Forms- Gable Type, Quonset Type, Gothic Type, Gutter-Connected

Covering Materials and Glazings- Material Selection and Glazing, Glass, Acrylic structural sheet, Polycarbonate structured sheet, Fiber glass reinforced plastic, poly ethylene film, polyvinyl fluoride film .

Orientation of greenhouse / polyhouse- Design (Dead load, Live load, Wind load, Snow load), Wind effects, Size of the greenhouse, Spacing between green houses, Height of greenhouse, Structural design.

Unit-II

Components of green house- Galvanized structure, covering, cooling system, Exhaust fan, heating system, motorized shading net/ thermal net, fogging/ sprinkler system, drip system, control panel, motorized ventilation

Planning and designing- Introduction, basics of green house design, Bench Design, Site selection, Structures and Glazing , Various type of green house, their components and functions, Designing of irrigation system in green house.

Suggested reading:

1. Arora, J.S. (1990). *Introductory Ornamental Horticulture*. Kalyani Publishers.
2. Alex Lauric and Victor h Ries. *Floriculture, Fundamentals and Practices* . Agrobios, India
3. Dahama A K. *Organic Farming for Sustainable Agriculture* . Agrobios India.
4. George Acquaah. *Horticulture, Principles and Practices*. Eastern Economy Eddition.
5. Gupta P K *Manures and soil fertilizers*.
6. Hessayon D G . *The Flowering Plant Expert*. Expert Books.
7. Hessayon D G. *The Garden Expert*. Expert Books.

8. Hessayon D G *The House Plant Expert*. Expert Books.
9. Iyengar Gopalswamy. *Complete Gardening in India*
10. Prasad S and Kumar U. *Green House Management for Horticultural Crops*. Agrobios India
11. Pant V, Nelson. 1991. *Green House Operation and Management* . Bali Publ.
12. Ramachandrappa and Nanjappa. *Fertigation Technology*, Agrobios, India
13. Somani, L.L., Bhandari S.C. and Vyas K. K. (1990). *Biofertilizers*. Scientific publication, Jodhapur
14. Subbarao N.S. (1995) *Biofertilizers in Agriculture and Forestry*. Oxford and IBH publishing Company Pvt. LTd. New Delhi
14. Randhava, GS and Mukhopadhyay A. *Floriculture in India* Allied Publishers Limited

**DGHT-115: INSTALLATION AND MAINTENANCE OF
GREEN HOUSE STRUCTURES
(CREDITS: 4 Theory)**

Time allowed: 3 hrs
Period per week: 04
Pass marks: 35%

Max. Marks: 100
External Assessment: 70
Internal Assessment: 30

Instructions for Paper-Setters/Examiners

The question paper covering the entire course shall be divided into three sections as follows:

SECTION-A

It will consist of essay type questions. Four questions shall be set by the examiner from Unit-I of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weightage of the section shall be 20 marks.

SECTION-B

It will consist of essay type questions. Four questions shall be set by the examiner from Unit-II of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weightage of the section shall be 20 marks.

SECTION-C

It will consist of 15 very short answer questions from entire syllabus. This section is compulsory. Each question shall carry 2 marks total weightage of the section shall be 30 marks

Unit-I

Erection of Green house structure: Erect various type of profile provided in the layout of green house- Circular, C profile, thickness, height, length and width and class, various parts of structure and gutters at locations where leak proof joint.

Covering with the nets and sheets: Install insect net (on the side of the green house), shade net, covering up the structure with the film, its precautions and Maintenance

Unit-II

Green house Environment- Heating- Sources of heat, **Cooling-** Types of cooling.

Environmental control- Air temperature, sunlight, Carbondioxide, relative humidity, wind rain.

Fertilizer Application Methods- Constant feed intermittent application. Fertilizer injectors - Multiple injectors, Fertilizer Injectors (Venturi Principle Injectors, Positive displacement injectors), General problems of fertigation

Suggested reading:

1. Arora, J.S. (1990). *Introductory Ornamental Horticulture*. Kalyani Publishers.
2. Dahama A K. *Organic Farming for Sustainable Agriculture* . Agrobios India.
3. George Acquaah. *Horticulture, Principles and Practices*. Eastern Economy Edition.
4. Hessayon D G . *The Flowering Plant Expert*. Expert Books.
5. Hessayon D G. *The Garden Expert*. Expert Books.
6. Hessayon D G *The House Plant Expert*. Expert Books.
7. Iyengar Gopalswamy. *Complete Gardening in India*
8. Prasad S and Kumar U. *Green House Management for Horticultural Crops*. Agrobios India
9. Ramachandrappa and Nanjappa. *Fertigation Technology*, Agrobios, India
10. Subbarao N.S. (1995) *Biofertilizers in Agriculture and Forestry*. Oxford and IBH publishing Company Pvt. LTd. New Delhi
11. Randhava, GS and Mukhopadhyay A. *Floriculture in India* Allied Publishers Limited

**DGHT-116: PRACTICAL PERTAINING TO DESIGNING
AND LAYOUT OF GREEN HOUSE
(CREDITS: 5)**

Period per week: 10
Pass marks: 35%

Max. Marks: 100
External Assessment: 70
Internal Assessment: 30

1. Hands on training of various types of green house and their components.
2. Preparation of the plan and design green house.
3. Preparation of the layout of green house.
4. Preparation of the Floor and layout of green house
5. Acquaintance with Irrigation product used in green house
6. Acquaintance with material selection required for green house
7. Orientation of greenhouse / polyhouse
8. Designing of irrigation system in green house
9. Land survey, leveling and measuring angle for green house
10. Preparation of the plan of Interior layout in green house
11. Study of the covering system in green house
12. Avoid to water logging in green house
13. Designing and development of low cost green house structure
14. Basic crop cultivation/ package of practices
15. Visit to field using green house/ poly house system

Suggested reading:

1. Arora, J.S. (1990). *Introductory Ornamental Horticulture*. Kalyani Publishers.
2. Alex Lauric and Victor h Ries. *Floriculture, Fundamentals and Practices* . Agrobios, India
3. Dahama A K. *Organic Farming for Sustainable Agriculture* . Agrobios India.
4. George Acquaah. *Horticulture, Principles and Practices*. Eastern Economy Eddition.
5. Gupta P K *Manures and soil fertilizers*.
6. Hessayon D G . *The Flowering Plant Expert*. Expert Books.
7. Hessayon D G. *The Garden Expert*. Expert Books.
8. Hessayon D G *The House Plant Expert*. Expert Books.
9. Iyengar Gopalswamy. *Complete Gardening in India*
10. Practical Manual on Greenhouse Technology by Dr. Allah rang
11. Prasad S and Kumar U. *Green House Management for Horticultural Crops*. Agrobios India
12. Ramachandrappa and Nanjappa. *Fertigation Technology*, Agrobios, India
13. Somani, L.L., Bhandari S.C. and Vyas K. K. (1990). *Biofertilizers*. Scientific publication, Jodhapur
14. Subbarao N.S. (1995) *Biofertilizers in Agriculture and Forestry*. Oxford and IBH publishing Company Pvt. LTd. New Delhi
15. Randhava, GS and Mukhopadhyay A. *Floriculture in India* Allied Publishers Limited

**DGHT-117: PRACTICAL PERTAINING TO INSTALLATION
AND MAINTENANCE OF GREEN HOUSE STRUCTURES**

(CREDITS: 5)

Period per week: 10
Pass marks: 35%

Max. Marks: 100
External Assessment: 70
Internal Assessment: 30

1. To get acquainted with different type of green house structure
2. Select the material and purchase as per the standard
3. To get acquainted with joint vent at various recommended/ specified angle
4. Installation of insect net and plastic sheet as per the standard
5. Operation of heating system in green house
6. Operation of cooling system in green house
7. To get acquainted with Fertilizer application method in green house
8. Study of the environmental control in green house
9. Study of the different fertilizer injector in green house
10. Study of fertigation in green house
11. Ventilation and air movement in green house
12. Maintain the humidity by the operation of fogger as per crop and season
13. Maintain the temperature with the help of cooling pad and fan as per the crop and season
14. Operation and maintenance of various equipment for green house installation
15. Visit to various industries, dealing with manufacturing parts of green house system

Suggested reading:

1. Arora, J.S. (1990). *Introductory Ornamental Horticulture*. Kalyani Publishers.
2. Dahama A K. *Organic Farming for Sustainable Agriculture*. Agrobios India.
3. George Acquaah. *Horticulture, Principles and Practices*. Eastern Economy Eddition.
4. Hessayon D G . *The Flowering Plant Expert*. Expert Books.
5. Hessayon D G. *The Garden Expert*. Expert Books.
6. Hessayon D G *The House Plant Expert*. Expert Books.
7. Iyengar Gopalswamy. *Complete Gardening in India*
8. Prasad S and Kumar U. *Green House Management for Horticultural Crops*. Agrobios India
9. Ramachandrappa and Nanjappa. *Fertigation Technology*, Agrobios, India
10. Subbarao N.S. (1995) *Biofertilizers in Agriculture and Forestry*. Oxford and IBH publishing Company Pvt. LTd. New Delhi
11. Randhava, GS and Mukhopadhyay A. *Floriculture in India* Allied Publishers Limited

SEMESTER-II
DGHT 221 (Gen. Edu)

ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ (Punjabi Compulsory)

ਕੈਡਿਟ : 4

ਬੀ. ਵਾਕ ਇੰਨ ਐਗਰੀਕਲਚਰ, ਬੀ. ਵਾਕ ਇੰਨ ਸਾਫਟ ਵੇਅਰ ਡਿਵੈਲਪਮੈਂਟ, ਬੀ. ਵਾਕ ਇੰਨ ਆਟੋ ਮਬਾਈਲ, ਬੀ. ਵਾਕ ਇੰਨ ਫੂਡ ਪ੍ਰੋਸੈਸਿੰਗ ਅਤੇ ਇੰਜੀਨੀਅਰਿੰਗ, ਡਿਪਲੋਮਾ ਇਨ ਗਰੀਨ ਹਾਊਸ ਟੈਕਨਾਲੋਜੀ ਅਤੇ ਡਿਪਲੋਮਾ ਇਨ ਆਟੋ ਇਲੈਕਟਰੀਕਲ ਐਂਡ ਇਲੈਕਟਰੋਨਿਕਸ, ਸਾਰੇ ਕੋਰਸਾਂ ਦੇ ਭਾਗ ਪਹਿਲਾ ਲਈ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਵਿਸ਼ੇ ਦਾ ਸਿਲੇਬਸ

ਸਮੈਸਟਰ-2

ਕੁੱਲ ਅੰਕ 100

ਲਿਖਤੀ ਪਰੀਖਿਆ : 70 ਅੰਕ

ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ : 30 ਅੰਕ

ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ ਦਾ ਸਮਾਂ : 3 ਘੰਟੇ

ਵਿਸ਼ੇ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 35

ਲਿਖਤੀ ਪਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 24

ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 11

ਸਿਲੇਬਸ ਤੇ ਪਾਠ ਪੁਸਤਕਾਂ

ਭਾਗ:-ੳ **ਜੀਵਨ ਜੁਗਤ** – ਵਿਭਾਗ ਵੱਲੋਂ ਪ੍ਰਕਾਸ਼ਿਤ

ਭਾਗ:-ਅ **ਵਿਹਾਰਕ ਵਿਆਕਰਨ**

(ਅ.1) ਸ਼ਬਦ ਬਣਤਰ ਅਤੇ ਸ਼ਬਦ ਰਚਨਾ : ਪਰਿਭਾਸ਼ਾ, ਮੁੱਢਲੇ ਸੰਕਲਪ, ਮੂਲ ਰੂਪ, ਅਗੇਤਰ, ਪਛੇਤਰ, ਵਿਉਂਤਪਤ ਰੂਪ ਅਤੇ ਰੂਪਾਂਤਰੀ ਰੂਪ।

(ਅ.2) ਭਾਸ਼ਾ ਵੰਨਗੀਆਂ, ਭਾਸ਼ਾ ਦਾ ਟਕਸਾਲੀ ਰੂਪ, ਭਾਸ਼ਾ ਅਤੇ ਉਪ-ਭਾਸ਼ਾ ਦਾ ਅੰਤਰ ਅਤੇ ਅੰਤਰ ਸਬੰਧ. ਪੰਜਾਬੀ ਉਪ-ਭਾਸ਼ਾਵਾਂ ਦੇ ਪਛਾਣ

ਚਿੰਨ।

(ਅ.3) ਚਿੱਠੀ ਪੱਤਰ (ਨਿੱਜੀ, ਦਫਤਰੀ ਅਤੇ ਸਮਾਜਿਕ ਸਰੋਕਾਰਾਂ ਨਾਲ ਸੰਬੰਧਿਤ)

(ਅ.4) ਸਥਾਨਕ ਕਾਲਜ ਦੇ ਪੰਜਾਬੀ ਵਿਭਾਗ ਵੱਲੋਂ ਪ੍ਰਕਾਸ਼ਿਤ ਕੀਤੇ ਗਏ ਤਕਨੀਕੀ ਸ਼ਬਦਾਵਲੀ ਕੋਸ਼ ਵਿਚੋਂ ਸਬੰਧਤ ਫੈਕਲਟੀ ਵਾਲੇ ਭਾਗ ਦੇ 101 ਤੋਂ

200 ਤੱਕ ਸ਼ਬਦਾਂ ਦਾ ਅੰਗਰੇਜ਼ੀ ਤੋਂ ਪੰਜਾਬੀ ਵਿਚ ਅਨੁਵਾਦ।

ਭਾਗ-ੲ: ਉਪਰੋਕਤ ਸਿਲੇਬਸ ਤੇ ਆਧਾਰਿਤ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ।

ਅੰਕ ਵੰਡ ਅਤੇ ਪੇਪਰ ਸੈਟਰ ਲਈ ਹਦਾਇਤਾਂ

1. ਸਿਲੇਬਸ ਦੇ ਸਾਰੇ ਭਾਗਾਂ ਵਿੱਚੋਂ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।

2. ਪੇਪਰ ਨੂੰ ਤਿੰਨ ਭਾਗਾਂ ਓ, ਅ ਅਤੇ ਏ ਵਿੱਚ ਵੰਡਿਆ ਜਾਵੇਗਾ।

3. ਭਾਗ ਓ ਵਿੱਚੋਂ ਜੀਵਨ ਜੁਗਤ ਪੁਸਤਕ ਦੇ ਹਰ ਭਾਗ, ਭਾਵ ਕਵਿਤਾ, ਨਿਬੰਧ, ਜੀਵਨੀ ਅਤੇ ਇਕਾਂਗੀ, ਵਿਚੋਂ ਵਿਸ਼ੇ ਵਸਤੂ ਨਾਲ ਸਬੰਧਤ ਦੋ-ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਅਤੇ ਵਿਦਿਆਰਥੀਆਂ ਲਈ ਹਰ ਭਾਗ ਵਿਚੋਂ ਇਕ ਇਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੋਵੇਗਾ। 4*6=24 ਅੰਕ

4. ਭਾਗ ਅ ਵਿਚੋਂ ਵਿਆਕਰਨ ਦੇ ਦੋਨਾਂ ਭਾਗਾਂ -ਅ.1, ਅ.2 ਵਿਚੋਂ ਵਰਣਾਤਮਕ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।

(ਤਿੰਨ ਵਿੱਚੋਂ ਕੋਈ ਇਕ) 12 ਅੰਕ

5. ਕਿਸੇ ਇਕ ਵਿਸ਼ੇ 'ਤੇ ਚਿੱਠੀ ਪੱਤਰ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ

(ਤਿੰਨ ਵਿੱਚੋਂ ਇਕ) 04 ਅੰਕ

6. ਤਕਨੀਕੀ ਸ਼ਬਦਾਵਲੀ ਕੋਸ਼ ਦੇ ਆਪਣੀ- ਆਪਣੀ ਫੈਕਲਟੀ ਨਾਲ ਸਬੰਧਤ ਭਾਗ ਦੇ 101 ਤੋਂ ਲੈ ਕੇ 200 ਤੱਕ ਤਕਨੀਕੀ ਸ਼ਬਦਾਂ ਦੇ ਅੰਗਰੇਜ਼ੀ ਤੋਂ ਪੰਜਾਬੀ ਵਿਚ ਅਨੁਵਾਦ ਕਰਨ ਸਬੰਧੀ।

(ਪੱਚੀ ਵਿੱਚੋਂ ਕੋਈ ਵੀਹ) 10 ਅੰਕ

7. ਭਾਗ ਏ ਦੇ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ 10 ਪ੍ਰਸ਼ਨ, ਦੋ ਭਾਗਾਂ ਓ ਅਤੇ ਅ, ਵਿਚੋਂ ਪੁੱਛੇ ਜਾਣਗੇ। ਵਿਦਿਆਰਥੀ ਨੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਸੰਖੇਪ ਵਿਚ ਉੱਤਰ ਦੇਣੇ ਹੋਣਗੇ ਅਤੇ ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ 2 ਅੰਕ ਹੋਣਗੇ। (ਨੋਟ:ਪੇਪਰ ਵਿਚ ਭਾਗ ਅ ਦੇ ਅ.3 ਅਤੇ ਅ.4 ਵਿਚੋਂ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ ਨਹੀਂ ਪੁੱਛੇ ਜਾਣਗੇ।)

10x2=20 ਅੰਕ

ਇੰਟਰਨਲ ਅਸੈਸਮੈਂਟ

ਕੁੱਲ 30 ਅੰਕ

3. ਕਲਾਸ ਹਾਜ਼ਰੀ/ਘਰੇਲੂ ਇਮਤਿਹਾਨ/ਅਸਾਈਨਮੈਂਟ

4. ਪਾਠ ਪੁਸਤਕ ਜੀਵਨ ਜੁਗਤ ਦੇ ਸਾਰੇ ਲੇਖਕਾਂ ਜਾਂ ਜੀਵਨੀਆਂ ਦੇ ਨਾਇਕਾਂ ਦਾ ਜੀਵਨ ਬਿਓਰਾ (Profile) ਚਿਤਰਾਂ ਸਮੇਤ ਤਿਆਰ ਕਰਨਾ।

ਜਾਂ

ਅਧਿਆਪਕ ਵਲੋਂ ਦੱਸੀ ਗਈ ਕਿਸੇ ਵੀ ਸਮਾਜਕ ਸਮੱਸਿਆ ਨਾਲ ਸਬੰਧਤ ਪੰਜਾਬੀ ਵਿੱਚ ਪੀ. ਪੀ. ਟੀ. ਪ੍ਰੋਜਨਟੇਸ਼ਨ ਦੇਣਾ, ਜਾਂ ਪ੍ਰੋਜੈਕਟ ਫਾਇਲ ਤਿਆਰ ਕਰਨਾ, ਜਾਂ ਆਪਣੇ ਨਾਲ ਸਬੰਧਤ ਫੈਕਲਟੀ ਦੇ ਕਿਸੇ ਵੀ ਵਿਸ਼ੇ/ਸਮੱਸਿਆ 'ਤੇ ਪੰਜਾਬੀ ਵਿੱਚ ਪੀ. ਪੀ. ਟੀ. ਪ੍ਰੋਜਨਟੇਸ਼ਨ ਦੇਣਾ।

ਸਹਾਇਕ ਪਾਠ- ਸਮੱਗਰੀ

1. ਹਰਕੀਰਤ ਸਿੰਘ, ਭਾਸ਼ਾ ਵਿਗਿਆਨ ਅਤੇ ਪੰਜਾਬੀ ਭਾਸ਼ਾ, ਬਾਹਰੀ ਪਬਲੀਕੇਸ਼ਨ, ਦਿੱਲੀ, 1971.
2. ਬਲਦੇਵ ਸਿੰਘ ਚੀਮਾ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਗਿਆਨ ਅਤੇ ਵਿਆਕਰਨ (ਤਕਨੀਕੀ ਸ਼ਬਦਾਵਲੀ ਦਾ ਵਿਸ਼ਾ ਕੋਸ਼) ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ 2000.
3. ਬੂਟਾ ਸਿੰਘ ਬਰਾੜ, ਪੰਜਾਬੀ ਵਿਆਕਰਨ: ਸਿਧਾਂਤ ਤੇ ਵਿਹਾਰ, ਚੇਤਨਾ ਪ੍ਰਕਾਸ਼ਨ, ਲੁਧਿਆਣਾ, 2008.
4. ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ ਸਿੰਘ, ਸਿਧਾਂਤਕ ਭਾਸ਼ਾ ਵਿਗਿਆਨ, ਮਦਾਨ ਪਬਲਿਸਰਜ਼, ਪਟਿਆਲਾ, 2002.
5. ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ ਸਿੰਘ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦਾ ਸ੍ਰੋਤ ਤੇ ਬਣਤਰ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 1996.
6. ਖੋਜ ਪਤ੍ਰਿਕਾ (ਨਿਬੰਧ ਅੰਕ), ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ.
7. ਜੋਗਿੰਦਰ ਸਿੰਘ ਪੁਆਰ ਅਤੇ ਹੋਰ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦਾ ਵਿਆਕਰਨ, ਭਾਗ ਪਹਿਲਾ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਕਾਦਮੀ, ਜਲੰਧਰ।
8. ਸੁਖਵਿੰਦਰ ਸਿੰਘ ਸੰਘਾ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਗਿਆਨ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਕਾਦਮੀ, ਜਲੰਧਰ, 1999.

ਨੋਟ:1. ਤਿੰਨ ਸਾਲਾ ਡਿਗਰੀ ਕੋਰਸਾਂ ਵਿੱਚ ਤਿੰਨ ਸਾਲ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਪੜ੍ਹਨ ਵਾਲੇ ਅਤੇ ਕੇਵਲ ਇਕ ਸਾਲ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਪੜ੍ਹਨ ਵਾਲੇ ਸਾਰੇ ਵਿਦਿਆਰਥੀਆਂ ਲਈ ਭਾਗ ਪਹਿਲਾ, ਸਮੈਸਟਰ ਦੂਜਾ ਦਾ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਦਾ ਸਿਲੇਬਸ ਉਪਰੋਕਤ ਹੋਵੇਗਾ।

2. Only those students who have not studied Punjabi up to matriculation can opt for Elementary Punjabi. Other students will study compulsory Punjabi.

DGHT 221 A (Gen. Edu)
ਮੁੱਢਲਾ ਗਿਆਨ (Elementary Punjabi)

ਕੈਡਿਟ : 4

ਬੀ. ਵਾਕ ਇੰਨ ਐਗਰੀਕਲਚਰ, ਬੀ. ਵਾਕ ਇੰਨ ਸਾਫਟ ਵੇਅਰ ਡਿਵੈਲਪਮੈਂਟ, ਬੀ. ਵਾਕ ਇੰਨ ਆਟੋ ਮਬਾਈਲ, ਬੀ. ਵਾਕ ਇੰਨ ਫੂਡ ਪ੍ਰੋਸੈਸਿੰਗ ਅਤੇ ਇੰਜੀਨੀਅਰਿੰਗ, ਡਿਪਲੋਮਾ ਇਨ ਗਰੀਨ ਹਾਊਸ ਟੈਕਨਾਲੋਜੀ ਅਤੇ ਡਿਪਲੋਮਾ ਇਨ ਆਟੋ ਇਲੈਕਟਰੀਕਲ ਐਂਡ ਇਲੈਕਟਰੋਨਿਕਸ, ਸਾਰੇ ਕੋਰਸਾਂ ਦੇ ਭਾਗ ਪਹਿਲਾ ਲਈ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਵਿਸ਼ੇ ਦਾ ਸਿਲੇਬਸ

ਸਮੈਸਟਰ-2

ਕੁੱਲ ਅੰਕ 100

ਲਿਖਤੀ ਪਰੀਖਿਆ : 70 ਅੰਕ

ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ : 30 ਅੰਕ

ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ ਦਾ ਸਮਾਂ : 3 ਘੰਟੇ

ਵਿਸ਼ੇ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 35

ਲਿਖਤੀ ਪਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :24

ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :11

ਭਾਗ-ੳ (1) ਸ਼ਬਦ ਪ੍ਰਬੰਧ ਜੋੜਾਂ ਦੀ ਵਰਤੋਂ

(ੳ) ਦੋ ਅੱਖਰੀ ਸ਼ਬਦਾਂ ਦੇ ਜੋੜ

(ਅ) ਤਿੰਨ ਅੱਖਰੀ ਸ਼ਬਦਾਂ ਦੇ ਜੋੜ

(ੲ) ਬਹੁ ਅੱਖਰੀ ਸ਼ਬਦਾਂ ਦੇ ਜੋੜ

ਅੰਕ 12

(2) ਸ਼ਬਦਾਂ ਦੀਆਂ ਸ਼ਰੇਣੀਆਂ ਤੇ ਵਿਆਕਰਨਕ ਵਰਗਾਂ ਦੀ ਪਛਾਣ

(ੳ) ਸ਼ਬਦਾਂ ਦੀਆਂ ਸ਼ਰੇਣੀਆਂ ਦਾ ਸਿਧਾਂਤ, ਪਛਾਣ ਤੇ ਵਰਤੋਂ

(ਨਾਂਵ, ਪੜਨਾਂਵ, ਵਿਸ਼ੇਸ਼ਣ, ਕਿਰਿਆ, ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ ਆਦਿ)

(ਅ) ਵਿਆਕਰਨਕ ਵਰਗਾਂ ਦੀ ਪਛਾਣ ਤੇ ਵਰਤੋਂ

(ਲਿੰਗ, ਵਚਨ, ਪੁਰਖ, ਕਾਲ)

ਅੰਕ 12

ਭਾਗ-ਅ

(1) ਸ਼ਬਦ ਬਣਤਰਾਂ ਤੇ ਵਿਆਕਰਨਕ ਇਕਾਈਆਂ ਦਾ ਸਿਧਾਂਤ ਤੇ ਵਰਤੋਂ

(ੳ) ਪੰਜਾਬੀ ਸ਼ਬਦ ਬਣਤਰਾਂ ਦਾ ਸਿਧਾਂਤ, ਪਛਾਣ ਤੇ ਵਰਤੋਂ

(ਅਗੇਤਰ, ਪਿਛੇਤਰ, ਸਮਾਸ, ਦੁਹਰਰੁਕਤੀ)

(ਅ) ਵਿਆਕਰਨਕ ਇਕਾਈਆਂ ਦਾ ਸਿਧਾਂਤ, ਪੜਾਣ ਤੇ ਵਰਤੋਂ

(ਵਾਕੰਸ਼, ਉਪ-ਵਾਕ ਤੇ ਵਾਕ)

(ੲ) ਸ਼ਬਦਾਂ ਦਾ ਵਿਆਕਰਨਕ ਮੇਲ: ਸਿਧਾਂਤ ਤੇ ਵਿਹਾਰ

ਅੰਕ 12

(2) ਵਿਸ਼ਰਾਮ ਚਿੰਨ੍ਹਾਂ ਦੀ ਪਛਾਣ ਤੇ ਵਰਤੋਂ।

ਅੰਕ 12

ਭਾਗ-ੲ ਸਾਰੇ ਸਿਲੇਬਸ ਤੇ ਅਧਾਰਿਤ ਗਿਆਰਾਂ ਆਬਜੈਕਟਿਵ ਟਾਈਪ ਪ੍ਰਸ਼ਨ।

ਅੰਕ 11*2=22

ਅੰਕ ਵੰਡ ਅਤੇ ਪੇਪਰ ਸੈਟਰ ਲਈ ਹਦਾਇਤਾਂ

1. ਵਿਦਿਆਰਥੀ ਪਹਿਲੀ ਵਾਰ ਗੁਰਮੁਖੀ ਸਿਖ ਰਹੇ ਹਨ। ਹੋ ਸਕਦਾ ਹੈ ਵਿਦਿਆਰਥੀ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਤੋਂ ਅਨਜਾਣ ਹੋਣ। ਸੋ ਪ੍ਰਸ਼ਨਾਂ ਦਾ ਪੱਧਰ ਵਿਦਿਆਰਥੀਆਂ ਦੀ ਸੀਮਾ ਨੂੰ ਧਿਆਨ ਵਿਚ ਰੱਖ ਕੇ ਨਿਸ਼ਚਿਤ ਕੀਤਾ ਜਾਵੇ।
2. ਸਾਰੇ ਭਾਗਾਂ ਵਿੱਚੋਂ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣ।
3. ਸਰਲ ਅਤੇ ਸਪਸ਼ਟ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣ।
4. ਵਰਣਾਤਮਕ ਪ੍ਰਸ਼ਨ ਨਾ ਪੁੱਛੇ ਜਾਣ।
5. ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਵਿਆਕਰਨ ਦੀ ਮੁੱਢਲੀ ਜਾਣਕਾਰੀ ਸਬੰਧੀ ਸੰਖੇਪ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣ। ਲੋੜ ਅਨੁਸਾਰ ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਛੋਟੇ ਜਾਂ ਚੋਣ ਦੇਣੀ ਲਾਜ਼ਮੀ ਹੈ।

ਇੰਟਰਨਲ ਅਸੈਸਮੈਂਟ

ਕੁੱਲ 30 ਅੰਕ

5. ਕਲਾਸ ਹਾਜ਼ਰੀ/ਘਰੇਲੂ ਇਮਤਿਹਾਨ/ਅਸਾਈਨਮੈਂਟ

6. ਅਧਿਆਪਕ ਵੱਲੋਂ ਵਿਦਿਆਰਥੀ ਦੇ ਪੱਧਰ ਅਨੁਸਾਰ ਪੰਜਾਬੀ ਵਿਚ ਦਿੱਤਾ ਗਿਆ ਕੋਈ ਵੀ ਕਾਰਜ।

ਸਹਾਇਕ ਪਾਠ ਸਮੱਗਰੀ

1. ਸਤਿਨਾਮ ਸਿੰਘ ਸੰਧੂ, **ਆਓ ਪੰਜਾਬੀ ਸਿਖੀਏ**, ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 2009
(ਹਿੰਦੀ ਤੋਂ ਪੰਜਾਬੀ ਸਿੱਖਣ ਲਈ)
2. ਸਤਿਨਾਮ ਸਿੰਘ ਸੰਧੂ, **ਗੁਰਮੁਖੀ ਸਿੱਖੋ**, ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 2011 (ਅੰਗਰੇਜ਼ੀ ਤੋਂ ਪੰਜਾਬੀ ਸਿੱਖਣ ਲਈ)
3. ਸੀਤਾ ਰਾਮ ਬਾਹਰੀ, **ਪੰਜਾਬੀ ਸਿਖੀਏ**, ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 2002 (ਹਿੰਦੀ)
4. ਰਾਜਿੰਦਰ ਸਿੰਘ, **ਪੰਜਾਬੀ ਗਿਆਨ ਸੀ.ਡੀ.** (ਕੰਪਿਊਟਰ ਐਪਲੀਕੇਸ਼ਨ ਟੂ-ਲਰਨ ਐਂਡ ਟੀਚ ਪੰਜਾਬੀ) ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 2011
5. Hardev Bahri, **Teach Yourself Punjabi**, Publication Bureau, Punjabi University, patiala. 2011
6. Henry A. Gleason and Harjeet Singh Gill, **A Start in Punjabi**, Punjabi University, Patiala 1997.
7. Ujjal Singh Bahri and Paramjit Singh Walia, **Introductory Punjabi**, Publication Bureau, Punjabi University, patiala. 2011

ਨੋਟ: Only those students who have not studied Punjabi up to matriculation can opt for Elementary Punjabi. Other students will study compulsory Punjabi.

DGHT 222 (Gen. Edu)
Semester II
English Communication Skills
This course will consist the following credit structure
(Credits: 4 Theory)

Time allowed: 3 hours

Max Marks: 100

Periods per week: 4

External: 70

Pass Marks: 35%

Internal Assessment: 30

Section - A

Text Prescribed: *The Poetic Palette*, Orient BlackSwan, 2013

1. Pippa's Song: Robert Browning
2. The Tyger: William Blake
3. Magic of Love: Helen Farries
4. The Charge of the Light Brigade: Alfred Tennyson
5. The Man He Killed: Thomas Hardy
6. Where the Mind is Without Fear: Rabindranath Tagore
7. The Soul's Prayer: Sarojini Naidu
8. The Work of Artifice: Marge Piercy
9. Who's English is it anyway? :John Agard
10. Poetry: Pablo Neruda

Testing:

Q1. (a) One essay-type question with an internal alternative on summary, central idea and theme in about 200-250 words. 10 marks

(b) Five short answer questions to be attempted out of the given eight from the prescribed text in about 30 words each. 2X5=10marks

Section-B

Q.2 Writing Skills

a. Resume writing with covering letter 10 marks

Testing: One resume to be attempted out of the given two options

b. Report Writing: Analytical Report and Action Report 10 marks

Testing: One report to be attempted out of the given two options

Q.3 Grammar and Vocabulary

(a) Grammar:

Prescribed Text: *Oxford Practice Grammar* by John Eastwood, Oxford University Press, 1999

1. Ex. 76-96 10 marks

Attempt 10 sentences out of the given 12

2. Ex: 98 to 117 10 marks

Attempt 10 sentences out of the given 12

(b) Vocabulary:

Prescribed Text: *Student's Companion* by Wilfred D Best, Harper Collins Publishers, 1984

1. Antonyms Pages 131 -132
 Attempt any 5 antonyms out of the given 7

2. Synonyms Pages 135-136
 Attempt any 5 synonyms out of the given 7 5+5= 10 marks

Suggested Reading:

The Written Word – Vandana R Singh (Oxford University Press)

DGHT-223: BASICS OF AGRICULTURE-II
(CREDITS: 4 Theory)

Time allowed: 3 hrs
Period per week: 04
Pass marks: 35%

Max. Marks: 100
External Assessment: 70
Internal Assessment: 30

Instructions for Paper-Setters/Examiners

The question paper covering the entire course shall be divided into three sections as follows:

SECTION-A

It will consist of essay type questions. Four questions shall be set by the examiner from Unit-I of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weightage of the section shall be 20 marks.

SECTION-B

It will consist of essay type questions. Four questions shall be set by the examiner from Unit-II of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weightage of the section shall be 20 marks.

SECTION-C

It will consist of 15 very short answer questions from entire syllabus. This section is compulsory. Each question shall carry 2 marks total weightage of the section shall be 30 marks

Unit-I

Seed, Classes of seed, Difference between seed and grain, Principles of seed processing. Seed drying principles and methods. Pre cleaning, grading, treatment, pelleting and packaging. Seed invigoration and enhancement treatment and their applications, Basis of cost analysis, Seed certification and Tagging

Unit-II

Basics of seed production, Seed processing machines like cleaner cum grader, specific gravity separator, indented cylinder, seed treater, weighing and bagging machines, their operation and maintenance. Seed quality maintenance during processing.

Suggested reading:

1. Agrawal RL. 1996. *Seed Technology*. Oxford Publisher.
2. Barton LV. 1985. *Seed Preservation and Longevity*. International Books and Periodicals Supply Service, New Delhi.
3. Hall CW. 1966. *Drying of Farms Crops*. Lyall Book Depot.
4. Justice OL & Bass LN. 1978. *Principles and Practices of Seed Storage*. Castle House Publ. Ltd.
5. Mathews RK, Welch GB, Delouche JC & Dougherty GM. 1969. *Drying, Processing and Storage of Corn seed in Tropical and Subtropical Regions*. Proc. Am. Agric. Eng. St. Joseph, Mich. Paper No. 69-67.
7. Sahay KM & Singh K K. 1991. *Unit Operations in Food Engineering*. Vikas Publ.
8. Viridi SS & Gregg BG. 1970. *Principles of Seed Processing*. National Seed Corp., New Delhi.

DGHT-224: PROCESS MACHINERIES FOR SEED PROCESSING

(CREDITS: 4 Theory)

Time allowed: 3 hrs
 Period per week: 04
 Pass marks: 35%

Max. Marks: 100
 External Assessment: 70
 Internal Assessment: 30

Instructions for Paper-Setters/Examiners

The question paper covering the entire course shall be divided into three sections as follows:

SECTION-A

It will consist of essay type questions. Four questions shall be set by the examiner from Unit-I of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weightage of the section shall be 20 marks.

SECTION-B

It will consist of essay type questions. Four questions shall be set by the examiner from Unit-II of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weightage of the section shall be 20 marks.

SECTION-C

It will consist of 15 very short answer questions from entire syllabus. This section is compulsory. Each question shall carry 2 marks total weightage of the section shall be 30 marks

Unit-I

Concept and objectives of seed processing: Basic flow pattern in seed processing, concept and importance of seed processing in the pathway of seed improvement, physical characteristics used to separate seeds.

Preparing seeds for processing: The scalper, the debearder, the maize scarifier and sheller, licensing of machines.

Seed drying : Importance and advantages of seed drying, moisture content, Orthodox / recalcitrant methods of seed moisture measurements, Theory of seed drying (wet & dry seeds), advantages of mechanical drying equipments dehumidification and drying of heat sensitive seeds, moisture content of seeds.

Principle, construction, working, adjustments, cleaning and uses of seed processing machines viz i) Air screen cleaner cum grader. ii) Specific gravity separator, aspirators, pneumatic aspirators, stoner iii) Roll mill iv) Magnetic separators v) Spiral separators, dropper best separator, electrostatic separators.

Unit-II

Seed treatment and Seed processing plant:

Seed Treatment: Principle, construction, working, adjustments and uses of slurry seed treater mist -o- matic seed treated, storage and labeling of treated seeds, seed users safety. Site selection for seed processing plant on a seed production farm, layout of machines in a seed processing plant for efficient product and man movement, seeds in post harvest phase Seed conveyors and elevators:- bucket elevator, belt conveyor, screen conveyor, oscillation conveyor, pneumatic conveyor.

Suggested reading:

- Agarwal RL. 1997. *Seed Technology*. 2nd Ed. Oxford & IBH.
- Chhabra AK. 2006. *Practical Manual of Floral Biology of Crop Plants*.
Dept. of Plant Breeding CCS HAU, Hisar.
- Desai BB. 2004. *Seeds Handbook*. Marcel Dekker.
- Kelly AF. 1988. *Seed Production of Agricultural Crops*. Longman.
- McDonald MB Jr & Copeland LO. 1997. *Seed Production: Principles and Practices*. Chapman & Hall.
- Musil AF. 1967. *Identification of Crop and Weed Seeds*. Handbook No. 219, USDA, Washington, DC, USA.
- Poehlman JM & Sleper DA. 2006. *Breeding Field Crops*. Blackwell.
- Singh BD. 2005. *Plant Breeding: Principles and Methods*. Kalyani.
- Singhal NC. 2003. *Hybrid Seed Production in Field Crops*. Kalyani.
- Thompson JR. 1979. *An Introduction to Seed Technology*. Leonard Hill.
- Tunwar NS & Singh SV. 1985. *Handbook of Cultivars*. CSCB, GOI.

DGHT-225: SEED PROCESSING UNIT AND TEAM MANAGEMENT (CREDITS: 4 Theory)

Time allowed: 3 hrs
Period per week: 04
Pass marks: 35%

Max. Marks: 100
External Assessment: 70
Internal Assessment: 30

Instructions for Paper-Setters/Examiners

The question paper covering the entire course shall be divided into three sections as follows:

SECTION-A

It will consist of essay type questions. Four questions shall be set by the examiner from Unit-I of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weightage of the section shall be 20 marks.

SECTION-B

It will consist of essay type questions. Four questions shall be set by the examiner from Unit-II of the syllabus and the candidate shall be required to attempt two. Each question shall carry 10 marks; total weightage of the section shall be 20 marks.

SECTION-C

It will consist of 15 very short answer questions from entire syllabus. This section is compulsory. Each question shall carry 2 marks total weightage of the section shall be 30 marks

Unit-I

Planning & Management of Crops, Building and Machinery: Management skills and Team building, Plan production and delivery schedule and sequence. Calculate batch size based on production order and machine capacity. Availability of raw seeds and packaging material. Seed law, Seed quality and analysis, Maintenance of records and documents. Storage and labelling of raw and processed seeds, seed storage methods and management and packing.

Unit-II

Introduction: Basics of farm management, scope, basic principles in production management, decision making operation and control.

Decision Making Approach:

Decision making based on production, cost and conical investment, cost analysis, law of diminishing return, opportunity cost, cost profitable combination of inputs and outputs.

Suggested reading:

- Agarwal RL. 1997. *Seed Technology*. 2nd Ed. Oxford & IBH.
Chhabra AK. 2006. *Practical Manual of Floral Biology of Crop Plants*.
Dept. of Plant Breeding CCS HAU, Hisar.
Desai BB. 2004. *Seeds Handbook*. Marcel Dekker.
Kelly AF. 1988. *Seed Production of Agricultural Crops*. Longman. McDonald MB Jr &
Copeland LO. 1997. *Seed Production: Principles and Practices*. Chapman & Hall.
Musil AF. 1967. Identification of Crop and Weed Seeds. Handbook No.
219, USDA, Washington, DC, USA.
Poehlman JM & Sleper DA. 2006. *Breeding Field Crops*. Blackwell.
Singh BD. 2005. *Plant Breeding: Principles and Methods*. Kalyani.
Singhal NC. 2003. *Hybrid Seed Production in Field Crops*. Kalyani.
Thompson JR. 1979. *An Introduction to Seed Technology*. Leonard Hill.
Tunwar NS & Singh SV. 1985. *Handbook of Cultivars*. CSCB, GOI.

**DGHT-226: PRACTICAL PERTAINING TO PROCESS MACHINERIES FOR SEED
PROCESSING**
(CREDITS: 5)

Period per week: 10

Pass marks: 35%

Max. Marks : 100

External Assessment: 70

Internal Assessment: 30

1. To maintain cleanliness of work area and machineries using approved sanitizers.
2. To start and stop machineries to ensure their proper working.
3. To monitor process of packaging of seeds.
4. To review production orders and ensure their timely production.
5. Identification of equipments and control points at regular intervals.
6. To study safety and sanitation procedures and standards.
7. To study personal safety equipments.
8. To attend training on hazard management and understand types of hazards such as physical, chemical and biological hazards.
9. To determine quality of seeds as per standards.
10. To study procedures for storage of raw and processed seeds
11. To prepare checklist before and after work for safety and hygiene
12. To identify, document and report problems of rodents and pests to management.
13. To maintain Production record.
14. Visit to seed processing farm

Suggested reading:

Seed certification manuals from PAU, Ludhiana

Agarwal RL. 1997. *Seed Technology*. 2nd Ed. Oxford & IBH.

Chhabra AK. 2006. *Practical Manual of Floral Biology of Crop Plants*.

Dept. of Plant Breeding CCS HAU, Hisar.

Desai BB. 2004. *Seeds Handbook*. Marcel Dekker.

Kelly AF. 1988. *Seed Production of Agricultural Crops*. Longman. McDonald MB Jr &

Copeland LO. 1997. *Seed Production: Principles and Practices*. Chapman & Hall.

Musil AF. 1967. *Identification of Crop and Weed Seeds*. Handbook No. 219, USDA, Washington, DC, USA.

Poehlman JM & Sleper DA. 2006. *Breeding Field Crops*. Blackwell.

Singh BD. 2005. *Plant Breeding: Principles and Methods*. Kalyani.

Singhal NC. 2003. *Hybrid Seed Production in Field Crops*. Kalyani.

Thompson JR. 1979. *An Introduction to Seed Technology*. Leonard Hill.

Tunwar NS & Singh SV. 1985. *Handbook of Cultivars*. CSCB, GOI.

**DGHT-227: PRACTICAL PERTAINING TO SEED PROCESSING UNIT AND
TEAM MANAGEMENT**
(CREDITS: 5)

Period per week: 10
Pass marks: 35%

Max. Marks : 100
External Assessment: 70
Internal Assessment: 30

- 1 To plan seed processing operation sequence
- 2 To calculate batch size and utilize equipments efficiently.
- 3 To check weight and availability of raw seeds and packaging material and ensure their safe transfer.
- 4 To verify documents and track from finished products to raw materials for quality concerns.
- 5 To discuss production details with manager and communicate information with co-workers.
- 6 To allot responsibilities and prepare shift schedule for machine operators and helpers.
- 7 To document and maintain record of seeds, seed tags and supplier details.
- 8 To load the seed details, process details and finished product details in ERP
9. Farm budgeting, procedures and use
10. To attend an industrial visit at Seed processing industry.

Suggested reading:

- Agarwal RL. 1997. *Seed Technology*. 2nd Ed. Oxford & IBH.
- Chhabra AK. 2006. *Practical Manual of Floral Biology of Crop Plants*.
Dept. of Plant Breeding CCS HAU, Hisar.
- Desai BB. 2004. *Seeds Handbook*. Marcel Dekker.
- Kelly AF. 1988. *Seed Production of Agricultural Crops*. Longman. McDonald MB Jr & Copeland LO. 1997. *Seed Production: Principles and Practices*. Chapman & Hall.
- Musil AF. 1967. *Identification of Crop and Weed Seeds*. Handbook No. 219, USDA, Washington, DC, USA.
- Poehlman JM & Sleper DA. 2006. *Breeding Field Crops*. Blackwell.
- Singh BD. 2005. *Plant Breeding: Principles and Methods*. Kalyani.
- Singhal NC. 2003. *Hybrid Seed Production in Field Crops*. Kalyani.
- Thompson JR. 1979. *An Introduction to Seed Technology*. Leonard Hill.
- Tunwar NS & Singh SV. 1985. *Handbook of Cultivars*. CSCB, GOI.