ORDINANCES AND OUTLINES OF TESTS,
SYLLABI AND COURSE OF READING

FOR

B.SC. AGRICULTURE (HONS.) PART-I
(Four Year Course)
(Semester I & II)

FOR

2016-17 & 2017-18 SESSIONS
UNDER CREDIT BASED SEMESTER SYSTEM

OF

UNIVERSITY GRANTS COMMISSION

Post Graduate Department of Agriculture

General Shivdev Singh Diwan Gurbachan Singh

KHALSA COLLEGE PATIALA

An Autonomous College

NAAC Accredited 'A' Grade

College with Potential for Excellence Status by UGC

E-mail: Khalsacollegepatiala@gmail.com

Website: www.khalsacollegepatiala.org

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 cumulative grade point average (CGPA) based on the performance of students in the examinations, the UGC has formulated CBSS guidelines.

.   **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. **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.

d. **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= GP X C.

e. **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, i.e. a course with assigned L-T-P: 3-0-2 or 3-1-0 will be equivalent to 4 credits weight-age course.

f. **Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.

g. **Grade Point (GP):** It is a numerical weight allotted to each letter grade on a 10 point scale.

h. **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 and F.

i. **Programme:** An educational programme leading to award of a degree, diploma or certificate.

j. **Semester Grade point Average (SGPA):** It is a measure of performance of work done in a semester. It is ratio of total credit points (CPs) secured by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed upto two decimal places.

k. **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.

l. **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.

m. **Semester Examinations:** The comprehensive examinations conducted for summative evaluation of course. The duration of these examinations shall be 3 and 4 hours for theory and practical courses respectively; and the weight shall be as per the ordinance of relevant programme.

n. **L-T-P:** The prescribed hours/week during a semester for Lecture-Tutorial-Practical to a particular course, in accordance with curriculum prescriptions based on respective nature.

ORDINANCES

FOR BACHELOR OF SCIENCE IN AGRICULTURE (HONS.)

(Four Year Course)

UNDER CREDIT BASED SEMESTER SESTEM

Applicability of Ordinances for the time being in force.

Notwithstanding the integrated nature of a course spread over more than one academic year, the Ordinances in force at the time a student joins a course shall hold good only for the examination held during or at the end of the academic year. Nothing in these Ordinances shall be deemed to debar the College from amending the ordinances subsequently and the amended ordinances, if any, shall apply to all the students whether old or new.

Eligibility for admission in B.Sc. Agriculture (Hons.)

I B.Sc. Agriculture (Hons.) is an integrated course comprising eight parts spread over four years. Each part will consist of two semesters. The course of study of B.Sc. Agriculture (Hons). shall be divided in eight semesters and the final examination will be held at the end of every semester in the months of November/December (for semester I,III,V & VII) and April/May (for semester II, IV, VI & VIII) or as fixed by the College.

2 The examination in B.Sc. Agriculture (Hons.). Part-I shall be open to a student who produces the following certificates to the Principal of the college.

(i) Of having passed at least +2 examination of Punjab School Education Board / C.B.S.E. / I.C.S.E. or any other examination recognized as equivalent there to with at least 50% marks (45% in case of candidate belonging to Scheduled cast/tribes) of the aggregate marks in four compulsory subjects i.e. Chemistry, Physics, Biology/Math and English taken together of 10+2 pattern or equivalent examination from recognized Board/University shall be eligible to join the first semester of the course.

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 B.Sc. Agriculture(Hons.) Part-I Course.

(ii) Of having remained on the rolls of a college admitted to the privileges of the University for the academic year preceding the examinations.

(iii) of having good character

2.1 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 if 3rd semester if he/she has passed in 50% of the total papers of first year (i.e. 1st and 2nd semester). Similarly, to qualify for admission to 5th semester

of the course, the student may be admitted provisionally if the result of the previous semester has not been declared and will be allowed to take examination of 5th semester, if he/she has passed 50% of the total papers of previous semesters. Similarly, to qualify for admission to 7th semester of the course, the student may be admitted provisionally if the result of the previous semester has not been declared and will be allowed to take examination of 7th semester, If he/she has passed 50% of the total papers of previous semesters.

3. A candidate must complete and pass the whole course of four years within a maximum of eight years from the date of admission in B.Sc. Agriculture (Hons.) first semester. If candidate does not clear the lower examination within in stipulated period the higher result of the candidate will stand automatically cancelled.

4. Semester examinations will be open to regular candidates who have been on the rolls of the college and meet the attendance and other requirements as prescribed in the ordinances of the course.

5. **Examination Rules**

5.1 Paper Setting/Evaluation will be done by an External Examiner or as decided by the Examination Cell.

5.2 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 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.

5.3 Re-evaluation of scripts shall be admissible in B.Sc. Agriculture (Hons.) Examination Semester I, II, III, IV, V, VI, VII and VIII examination except practical examination. The re evaluation shall be allowed in not more than two theory subjects. The candidate shall submit his/her application on specified form along with prescribed fee, for re-evaluation within 15 days from the date of declaration of the result. 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 evaluator is then considered as the final marks. The re-evaluator marks will be considered final irrespective of the increase or decrease in marks.

5.4 The students who have reappear in the VIIth semester only of Four Year Degree Course at Undergraduate Level will be allowed to appear in their Reappear examination along with the Final Semester Examinations of their respective courses.

5.5 The Principal can provide Golden Chance (with special chance fee) to students who have been unable to clear their exams even after two attempts.

5.6 Improvement Examinations

(i) A student who has been declared 'pass' in the Undergraduate course he/she was admitted to, may apply for improvement 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.

(ii) A 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 for him/her.

(iii) 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.

(iv) Improvement examination in practical paper shall not be allowed.

(v) A student taking improvement examination shall have to pay a fee decided by the college.

5.7 Evaluation and Grading System:

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

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

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

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

5.8 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):

(a) 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 courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e.

SGPA (S_i) = $\sum$(Earned Credits C_i x Grade Point G_i)/$\sum$Earned Credits C_i;

Where C_i is the number of credits of the ith course and G_i is the Grade Point Scored by the student in the ith course.

(b) 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 (Ci) = ∑(Earned Credits Ci x SGPA Si)/∑Ci);

Where Si is the SGPA of the ith semesters and Ci 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.

(c) Illustration of the computation of SGPA and CGPA and Format for Transcripts

(i) Computation of SGPA and CGPA

(A) Illustration for SGPA

Course	Credits	Grade Letter	Grade Point	Credit Point (Credit x Grade)
Course 1	3	A	8	3 X 8 = 24
Course 2	4	B+	7	4 X 7 = 28
Course 3	3	B	6	3 X 6 = 18
Course 4	3	O	10	3 X 10 = 30
Course 5	3	C	5	3 X 5 = 15
Course 6	4	B	6	4 X 6 = 24
	20			139

Thus, **SGPA = 139/20 = 6.95**

(B) Illustration for CGPA

Semester 1	Semester 2	Semester 3	Semester 4
Credit : 20 SGPA : 6.9	Credit : 22 SGPA : 7.8	Credit : 25 SGPA : 5.6	Credit : 26 SGPA : 60
Semester 5	**Semester 6**		
Credit : 26 SGPA : 6.3	Credit : 25 SGPA : 8.0		

Thus, **CGPA** = <u>20 x 6.9 + 22 x 7.8 + 25 x5.6 +26 X 6.0 + 26 x 6.3 +25 x 8.0</u>   = 6.73

144

(ii) 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.

5.9 Division and Position:

Division shall be awarded in the following manner, to the candidates on the basis of their respective CGPA:

CGPA 7.5 and above	1st Division with Distinction
CGPA 6.0 to 7.5	1st Division
CGPA 5.0 or more but less than 5.99	2nd Division
Otherwise	Fail

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

(a) Rank shall be solely decided on the final CGPA, on completion of degree credit requirement.

(b) The candidate has completed all the prescribed requirements, in the prescribed programme duration.

(c) The candidate has passed / secured valid grades in all the prescribed courses, in the first attempt.

(d) No disciplinary action is pending or has ever been lodged against him/her.

(e) In case of an exceptional tie, both candidates shall be awarded the same rank.

5.10 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.

5.11 Equivalence:

Percentage (P) equivalent to CGPA earned by a candidate may be calculated using the following formula:

$$P = CGPA \times 10.0$$

5.12 Malpractices/Unfair Means

5. 12.1 The following shall be deemed to be unfair means:

(i) 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.

(ii) Using abusive language in the examination hall or writing the same in the answer sheet.

(iii) Making an appeal to the evaluator through answer sheet.

(iv) 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.

(v) 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.

(vi) Impersonating for a candidate in the examination.

(vii) 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.

(viii) Any other action which the Controller Examination / Chief Controller deem fit to be a case of UMC.

5.12.2 In case the student is found to have used any of the above Unfair means:

(i) His/her answer book shall be seized and He/She will be given a new answer sheet.

(ii) 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.

(iii) 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.

(iv) 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.

(v) 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.

5.12.3 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/HOD 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.

7. 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.

8. Applications for admission to the examination shall be made on the prescribed form attested by the competent authority as per the college rules.

9. Amount of examination fee to be paid by a candidate for each semester shall be as fixed by the College from time to time.

10. The last date by which examination forms and fees must reach the Registrar 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.

11. College medal will be awarded to a candidate who secures first position in the College on the basis of the marks of all the eight semesters taken together. The general rules and conditions of the College/University for the Award of medal/prizes etc. will be applicable in the award of College medal to the topper of this examination.

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

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

13. The medium of examination shall be English/Punjabi. All the question papers except Punjabi and English will be set both in English and Punjabi. Candidates can answer the questions in English or Punjabi.

13.1 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.

14. The minimum number of marks required to pass each semester examination will be35% in each paper and 50% in the aggregate of the semester examination. Provided, that in papers with practical's, the percentage shall be required separately in written and practical/lab work, if the candidate gets 35% in each papers, but fails to get 50% marks aggregate, he/she will allowed to improve any of the papers his/her choice that semester.

15. Internal Assessment:

15.1 B.Sc. Agriculture (Hons.) Course will be run on Credit Based Semester System (CBSS) as described in the Introduction.

15.2 The Assessment in each semester of B.Sc. Agriculture (Hons.) Course 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.

15.3 There shall be Two Mid Semester tests in each Semester.

15.4 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%

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 Department

    III.   Dean of Faculty Concerned

    IV.   Controller of Examination

15.5 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

15.6 A candidate is required to secure atleast 35% marks in theory exam, practical exam and internal assessment seperately in each paper in order to qualify in an examination.

15.7 A candidate is required to secure 50% marks in aggregate in order to pass the semester examination.

15.8 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.

16. 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, field work, project, dissertation etc. shall be conducted as notified by the Head of department.

17. Degree Requirement:

17.1   An undergraduate degree with Hons. In a discipline may be awarded if a student qualifies all the papers mentioned in the prescribed syllabus.

17.2   The result of all the examinations will be declared by controller of examination after two weeks of termination of semester exam or as soon as thereafter through the College website.

17.3   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:

 (i)   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-voice/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.

 (ii)   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-voice and skill in teaching.

17.4 The College may from time to time revise, amend and change the regulations or the curriculum, if formed necessary.

17.5 The students will be given the facilities of transfer of Credits earned in different recognized/approved Institutions of Higher Education in India and Abroad.

17.6 A student who earns total specified marks according to the curriculum and fulfills such other conditions as may be mentioned in the curriculum of the programme of the First/Second/Third/Fourth/Fifth/Sixth/Seventh/Eighth semester examination shall be granted a DMC and of the Final examination shall be awarded degree 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.

18. 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.

19. In case the ordinance is silent about any issue, it will be decided by the College Principal in academic advisory committee for the concerned course of the college in the anticipation of approval of the same by Academic Council of the College.

B.SC AGRICULTURE (HONOURS)
CREDIT BASED SEMESTER SYSTEM
SCHEME OF STUDIES & EXAMINATION
2016-17 & 2017-18
SEMESTER-I

Course No.	Course Code	Subject	Theory			Practical	Grand Total	Credit Hours (T+P)
			Internal Assessment*	External Assessment	Total			
I	AGR–111	Introductory Agriculture	30	70	100	50	150	2+1
II	AGM–112	Introductory Agro meteorology	30	70	100	50	150	2+1
III	MBL–113	Elementary Microbiology	30	70	100	50	150	2+1
IV	SSC–114	Introduction to Soil Science	30	70	100	50	150	2+1
V	AGE–115	Principles of Agricultural Economics	30	70	100		100	2+0
VI	BOT–116	Basic Botany /	30	50	80	20	100	3+1
	MATH-116	Mathematics-I	30	70	100	-		4+0
VII	ENG–117	English Communication Skills	30	50	80	20	100	3+1
VIII	GPB–118	Punjabi (Compulsory)	30	50	80	20	100	3+1
	GPB–118 A	Elementary Punjabi (Mudla Gyan)						
IX	CPA-101	Computer Applications				50	50	0+1
Total							**1050**	**27**

Note:

1. Mathematics for those students who have passed 10+2 (Medical)

2. Botany for those students who have passed 10 +2 (Non Medical)

3. Punjabi Compulsory / Elementary Punjabi (Mudla Gyan) for those students who have not passed 10+2 with Punjabi subject.

*The breakup of marks for the internal assessment for theory will be as under:

Average of Two Mid Semester Tests/Internal Examinations	12 marks
Written Assignments/Project Work	12 marks
Attendance	6 marks

Course No.	Course Code	Subject	Theory			Practical Hours	Grand Total	Credit Hours (T+P)
			Internal Assessment*	External Assessment	Total			
X	VSC–121	Vegetable Production Technology	30	70	100	50	150	2+1
XI	BCH–122	Elementary Biochemistry	30	70	100	50	150	2+1
XII	FOR–123	Introductory Forestry	30	70	100	50	150	2+1
XIII	SSC–124	Soil Chemistry, Soil Fertility and Nutrient Management	30	70	100	50	150	2+1
XIV	PBG–125	Principles of Genetics	30	70	100	50	150	2+1
XV	ZOO–126/	Basic Zoology /	30	50	80	20	100	3+1
	MATH- 126	Mathematics	30	70	100	-		4+0
XVI	ENG–127	English Communication Skills	30	50	80	20	100	3+1
XVII	GPB–128	Punjabi (Compulsory)	30	50	80	20	100	3+1
	GPB–128 A	Elementary Punjabi (Mudla Gyan)						
Total							**1050**	**27**

Note:
1. Mathematics for those students who have passed 10+2 (Medical)
2. Botany for those students who have passed 10 +2 (Non Medical)
3. Punjabi Compulsory / Elementary Punjabi (Mudla Gyan) for those students who have not passed 10+2 with Punjabi subject.

*The breakup of marks for the internal assessment for theory will be as under:
Average of Two Mid Semester Tests/Internal Examinations   12 marks
Written Assignments/Project Work   12 marks
Attendance   6 marks

B.SC. AGRICULTURE (HONS.) (SEMESTER-I)

Course- I
AGR–111: INTRODUCTORY AGRICULTURE
3 Credits: 2H(L)+2H(P)
Theory

Max. Marks: 100
External theory: 70   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each.

UNIT-I

Art, science and business of crop production. Basic elements and factors affecting crop production. History of agricultural development. Ancient Indian agriculture in civilization era. Chronological agricultural technology development in India. Agricultural growth. Classification of Crops of different basis.

UNIT-II

General principles of Crop production: Climate, soil, preparation, seed and sowing, post sowing-tillage, water management, nutrition, plant protection measures, harvesting, threshing and storage. Crop sequences and system with emphasis on mixed cropping and inter cropping. Nutritional management of crops including application of manures, fertilisers and bio-fertilisers. Concept of integrated nutrient supply system.

Practical

Max. Marks: 50
Pass Marks: 35%   *Time Allowed: 3 Hours*

1. Identification of various crops, and their seed.
2. Weeds– identification and Control measures
3. Working of Agricultural implements
4. Calibration of seed drills
5. Identification, computation of Doses and methods of application of fertilizer
6. Farm visit for acutance with field problems.

SUGGESTED READINGS

- Alvin, P.T. and Kozlowski, T.T. 1976. *Ecophysiology of Tropical Crops.* Academic Publications, New York
- Balasubramaniyan, P. and Palaniappan, S.P. 2001. *Principles and Practices of Agronomy*. Agrobios, Jodhpur.
- Fageria, N.K. 1992. *Maximizing Crop Yields*. Marcel Dekker, New York.
- Gardner, P.P., Pearce, G.R. and Mitchell, R.L.1985. *Physiology of Crop Plants.* Scientific Pub., Jodhpur.
- Havlin, J.L, Beaton, J.D., Tisdale, S.L. and Nelson, W.L. 2006. *Soil Fertility and Fertilizers* (7th Ed). Prentice Hall, New Delhi.
- Paroda, R.S. 2003. *Sustaining our Food Security*. Konark Publishers, Ludhiana.
- Reddy, S.R. 2000. *Principles of Crop Production*. Kalyani Publishers, Ludhiana.
- Sankaran S. and Mudaliar T.V.S. 1997. *Principles of Agronomy*. The Bangalore Printing & Publishers, Bangalore.

Course- II

AGM–112: INTRODUCTORY AGRO METEOROLOGY

3 Credits: 2H(L)+2H(P)
Theory

Max. Marks: 100
External theory: 70   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each.

UNIT-I

Definition, practical utility and scope. General climatology. Structure and composition of earth's atmosphere. Elements and factors of weather and climate – temperature, pressure, wind, solar radiation and moisture. Impact of climate on crops and livestock distribution and production.

UNIT-II

Agro climatic indices – definitions and applications in agriculture. Effect of environmental factors on crop growth. Weather hazards in agriculture. Climatic classifications. Agro climatic regions of Punjab and India. Basics of field microclimate modification. Introduction to monsoons. Elementary aspects of weather forecasting. Effects of climate change on agriculture.

Practical

Max. Marks: 50
Pass Marks: 35%   *Time Allowed: 3 Hours*

1. Site selection for Agro–meteorological observatory.
2. Project on setting up, recording and maintenance of instruments in a meteorological observatory.
3. Measurement of temperature, rainfall, evaporation, atmospheric pressure
4. Measurement of sunshine duration, solar radiation
5. Measurement of wind direction, wind speed and relative humidity
6. Study of weather forecasting and synoptic charts.
7. Processing, presentation and interpretation of climatic data in relation to crops.

SUGGESTED READINGS

- Chadha, K.L. and Swaminathan, M.S. 2006. *Environment and Agriculture*. Malhotra Publ. House. Critchfield, H.J. 1995. *General Climatology*. Prentice Hall of India.
- Hemantarajan, A. 2007. *Environmental Physiology*. Scientific Publ. Kumar, H.D. 1992. *Modern Concepts of Ecology*. 7th Ed. Vikas.Publ. Lal, D.S. 1998. *Climatology*. Sharda Pustak Bhawan.
- Lenka, D. 1998. *Climate, Weather and Crops in India*. Kalyani Publ. Menon, P.A.1991. *Our Weather*. National Book Trust Publ.
- Sahu, D.D. *Agrometeorology and Remote Sensing: Principles and Practices*. Sharma, P.D. 1998. *Ecology and Environment*. Rastogi Publ

Course- III

MBL–113: ELEMENTARY MICROBIOLOGY

3 Credits: 2H(L)+2H(P)
Theory

Max. Marks: 100
External theory: 70   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each.

UNIT-I
General Introduction and scope of microbiology. History: microscope, spontaneous generation vs biogenesis, fermentation, germ theory of disease and immunity. Prokaryotes and Eukaryotes: general introduction, structure and differences. Major groups of microorganism: bacteria, fungi, yeast, algae and protozoa. Bacterial nutrition and growth: nutritional requirements, growth curve and methods of its measurement. Viruses: General introduction & replication of Bacteriophage, TMV and HIV.

UNIT-II

Methods of cultivating microorganisms: Pure culture and culture characteristics, streak plate, spread plate and pour plate method. Biogeochemical cycling: role of microorganisms in carbon, nitrogen, phosphorus and sulfur cycles. Soil microbiology: biological nitrogen fixation: symbiotic and non-symbiotic, microbes in composting, biofertilizers and biopesticides. Microbiology of water: water microflora and waste water treatment. Fermentation: types of fermentation, fermenters and industrial products. Mushroom cultivation: introduction to mushrooms and mushroom growing, edible and poisonous mushrooms.

Practical

Max. Marks: 50
Pass Marks: 35%   *Time Allowed: 3 Hours*
1. Demonstration of microscope and other laboratory instruments.
2. Identification of microbes by staining: simple, gram, negative and capsule.
3. Preparation of nutrient media: nutrient broth & nutrient agar.
4. Isolation of microorganisms from soil, water & air by pour plate and spread plate method.
5. Isolation of pure culture by streak plate method.
6. Determination of coliform bacteria in water.
7. Isolation of nitrogen fixing bacteria.
8. Cultivation technology of mushrooms and spawn production.

SUGGESTED READINGS

- Pelczar , M.T. 1995; Microbiology, Tata Mc Graw Hill Publishing, New Delhi.
- Stainer, R.Y.1995; General Microbiology, MacMillan Press, London.
- Dubey, R.C. and Maheshwari, D.K. 2010; A text book of Microbiology, S. Chand and Company Ltd, New Delhi.
- Darralyn M., David S., Phillip A., 2001; Introduction to Microbiology, Black Well Publication Ltd. USA.
- Reddy N.P. Eswara, Surendra V. 2015; **An Introduction to Microbiology**, Kalyani Publishers, Ludhiana
- Rao A.S. 2009; Introduction to Microbiology, Prentice Hall India
- Rangaswami G. Bagyaraj D.J. 2014; Agricultural Microbiology, Prentice Hall India
- Singh R.P. 2007; General Microbiology, Kalayani Publishers

Course- IV

SSC–114: INTRODUCTION TO SOIL SCIENCE

3 Credits: 2H(L)+2H(P)
Theory

Max. Marks: 100
External theory: 70   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%
INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each

UNIT-I

Concept of land, soil and soil science. Composition of earth crust and its relationship with soils. Rocks and minerals. Weathering. Soil forming factors and processes. Soil profile. Soil colour. Elementary knowledge of taxonomic classification of soils. Soil physical properties. Soil texture– textural classes. Soil structure– classification, soil aggregation and significance, soil consistency, soil crusting, bulk density and particle density of soils and porosity, their significance and manipulation.

UNIT-II

 Soils of Punjab and India, Soil colloids– properties, nature, types and significance. Sources of charges in clay minerals. Ion exchange, CEC, AEC – factors affecting and adsorption of ions. Soil organic matter–decomposition, mineralization, humus. Carbon cycle, C: N ratio. Soil organisms and their beneficial and harmful roles.

Practical

Max. Marks: 50
Pass Marks: 35%   *Time Allowed: 3 Hours*

1. Determination of bulk density and particle density.
2. Aggregate size analysis.
3. Soil mechanical analysis.
4. Analytical chemistry– basic concepts, techniques and calculations,
5. Collection and processing of soil samples for analysis of organic carbon, pH, EC, available N, P, K and S.
6. Study of a soil profile.
7. Identification of rocks and minerals.

SUGGESTED READINGS
- Biswas T.D., Mukherjee S.K. 2001. Textbook of Soil Science, Tata Mc-Graw Hill Education
- Das D.K. 2013. Introductory Soil Science, Kalyani Publishers, Ludhiana
- Brady N.C., Weil R.R. 2014. The Nature and Properties of Soils, 14th edition, Pearson Education
- Sehgal Jawahar L., Introductory Pedology-Soil Genesis, Survey and Classification, 2012, Kalyani Publishers, Ludhiana

- Metting FB. 1993. *Soil Microbial Ecology – Applications in Agricultural and Environmental Management*. Marcel Dekker Inc., New York.
- Russel RS. 1977. *Plant Root System: Their Functions and Interaction with the Soil*. ELBS & McGraw Hill, New York.
- Stotzky G and Bollag JM. 1993. *Soil Biochemistry*. Vol. VIII. Marcel Dekker Inc., New York.
- Sylvia DN. 2005. *Principles and Applications of Soil Microbiology*. Pearson Prentice Hall, New Jersey, US.

<div align="center">

Course- V

AGE–115: PRINCIPLES OF AGRICULTURAL ECONOMICS

2 Credits: 2H(L)
Theory

</div>

Max. Marks: 100
External theory: 70   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%
INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each.

<div align="center">

UNIT-I

</div>

Meaning, definition, subject matter, basic economic concepts. Wants–Meaning and characteristics. Theory of consumption– marginal utility analysis. Demand– Meaning, definition, kinds of demand, law of demand, change in demand. Elasticity of demand– various types, degrees, methods of measurement, importance and factors influencing elasticity of demand.

<div align="center">

UNIT-II

</div>

Consumer's surplus–Welfare Economics–meaning, Pareto's optimality. National Income– concepts, measurement, definition, importance.Classical theory of Employment, Keynesian Theory of Employment, Perfect and Imperfect competition–definition, types and characteristics. Inflation – Meaning, definition, kinds of inflation.

<div align="center">

SUGGESTED READINGS

</div>

- Lekhi R.K., Singh Joginder 2015; *Agricultural Economics An Indian Perspective,* Kalyani Publishers, Ludhiana
- Chopra P.N. 2012; *Principles of Economics,* Kalyani Publishers, Ludhiana
- Raju V.T., Economics of Farm Production and Management, Oxford & IBH, N. Delhi
- Subba Reddy, S., *Agricultural Economics*, Oxford & IBH, N. Delhi
- Black J.D. *Introduction of Economics for Agriculture*
- Narayanaswami; *The Economics of Indian Agriculture*

<div align="center">

Course- VI

BOT–116: BASIC BOTANY

4 Credits: 3H(L)+2H(P)
Theory

</div>

Max. Marks: 80
External theory: 50   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

<div align="center">

INSTRUCTIONS FOR CANDIDATES

</div>

The question paper will consist of three sections A, B and C. Section A and B will have four questions from the respective sections of the syllabus and will carry 8 marks each. Section C will consist of 9 short-answer type questions which will cover the entire syllabus uniformly and will carry 18 marks in all. Candidates are required to attempt two questions from each section A and B and the entire section C.

<div align="center">

UNIT- I

</div>

Classification and introduction to different groups of the plant kingdom
Root: External characters and functions, types of root systems. Major modifications of root systems and their significance.
Stem: External characters and functions, Major modifications of stem.

Leaf: Parts of a typical leaf and their functions; simple and compound leaves and their functions, venation and modifications of leaves; uses of leaves.
Inflorescence: Elementary knowledge of simple and special types of inflorescences.
Flower: Structure and functions of floral parts, floral diagram, floral formulae and vertical section of a flower, structure of the thalamus and insertion of the floral appendages on the thalamus, placentation.
Pollination: Types of pollinations, agencies responsible (Anemophily and Entomophily) for pollination, contrivances for cross pollination.

<div align="center">

UNIT- II

</div>

Fertilization: Fertilization and seed formation. Structure of Orthotropus, and Anatropous ovule.
Fruits: Elementary knowledge of fruits, dispersal of seeds and fruits.
Anatomy: An elementary account of the various tissues and their functions. Internal structure of root, stem and leaf (Dicot and Monocot).
Characteristic features (floral) and economic importance of following families with reference to the type mentioned:
1.   Cruciferae: *Brassica*
2.   Malvaceae: *Hibiscus*
3.   Leguminosae: *Pisum, Lathyrus*
4.   Cucurbitaceae: *Luffa*
5.   Solanaceae: *Petunia*
6.   Graminaeae: *Triticum*

Practical

Max. Marks: 20
Pass Marks: 35%   *Time Allowed: 3 Hours*

1. Study of salient features of each group of plant kingdom
2. Study of morphology and modification of root, stem and leaf
3. Study of the structure of flower and main types of inflorescences
4. Study of cell structure and tissue types
5. Microscopic examination of roots, stem and leaf (slides)
6. Study of the characters of the important plants covered in the theory.

SUGGESTED READINGS

- Dutta C. 2000; Book of Botany. Oxford University Press: New Delhi.
- Vidyarthi S. 2002; Text Book of Botany. S. Chand and Company: New Delhi.
- Bhatia K.N. Widge R. 2010; Introduction of Botany, Trueman Publishers: Jalandhar.
- Dhami, P.S. Srivastava H.N. Chopra G. Pradeep's A Textbook of Biology for Class 11 (Latest Edition).
- Arora B.B. and Sabharwal, A. K. 2014; Moderns ABC of Biology for Class XI
- Esau K. 1977; Anatomy of Seed Plants. John Wiley & Sons: New York
- Fahn, A. 1990; Plant Anatomy. Pergamon Press: Oxford
- Metcalfe, C.R. Chalk, L. 1950; Anatomy of Dicotyledons. Clarendron Press: Oxford

Course- VI

MATH-116- MATHEMATICS-I

4 Credits: 4H(L)
Theory

Max. Marks: 100
External theory: 70   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each.

UNIT-I
1)   Mensuration: Mensuration of rectangles, easy examples of garden paths, cost of planting trees and fencing gardens. Area of right angled triangles area and height of isosceles and equilateral triangles, area of triangles in terms of sides, rent field.Area of parallelograms, rhombus, quadrilateral and trapenoid. Regular polygonswith emphasis on hexagon and octagon. Simple cases of similar figures. Circumference and area of circles. Circular rings. Cost of fencing circular fields and paths.

2)   Mensuration: Volumes of cubes and rectangular solids. Cubic contents of tanks and cisterns. Volumes of triangular and rectangular prisms, right circular cylinders and segments of cylinders.
        (N. B. Easy numerical examples bearing on Science of agriculture only to be set. Proofs of formulae not required.)

3)   Algebra: Solution of quadratic equations and of those reducible to quadratic equation. (One variable). Theory of quadratic equations. Relation between roots and co-efficients.

UNIT-II
1)   Algebra: Series: nth terms sum to n terms of an A. P. and G. P. nth term of an
        H. P. (excluding means and problems on numbers etc.). Permutation and combinations : simple problems only. (Proofs of formulae not required). Binomial theorem, statement for any index: Expansion particular term coefficient of n, summation of simple infinite series evaluation cube root etc. correct to a certain place of decimal.

2)   Co-ordinate Geometry:
(1)   The point-distance and section formulae area of a triangle.
(2)   The straight line equation in the following standard form

x=a, y=b, y=mx, y=mx+c, $\dfrac{x}{} + \dfrac{y}{} = 1$, a   b

$\downarrow$

$\overrightarrow{}$
x-x′   y-y′

y-y′=m (x-x′) ------   -------- x″-x   y″-y′

    Reduction of equation ax+by+c=0: to (a) slope x cos   +y sin   = p (b) intercept form (c) perpendicular form (only method of reduction and not proof); point of intersection and, concurrence, Angle of intersection of lines y=m x+c, Y=m$_2$x+c$_2$, and equations of line (a) parallel and (b)^2 perpendicular to a given line and passing through a given point.

(3)   The circle-equation when (i) centre and radius given. (ii) Passes through three points (iii) extremities of a diameter given; the equation $x^2+y^2+2qx+2cy+c=0$ represents circle, center and radius, equations of the tangents and normal at any point of circle (only use formula no proof).

SUGGESTED READINGS

1.   *Algebra* by D. C. Kapoor & Gurbax Singh
2.   *Algebra* by T. N. Nagpal & K. K. Gupta.
3.   *Comprehensive Calculus* by R. S. Dehiya.
4.   *New Style Calculus* for T. D. C. – I.
5.   *New Style Co-ordinator Geometry* by R. K. Sondhi
6.   *Trignometry* by Jiwan
7.   *Mensuration* by Pic Point

Course- VII

ENG–117: ENGLISH COMMUNICATION SKILLS

COMMON FOR B.SC. (MEDICAL, NON-MEDICAL, BIO-TECH., AGRICULTURE, CSM), BCA PART-I

4 Credits: 3H(L)+2H(P)

Max. Marks: 80
External theory: 50   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

Section-A

Text Prescribed: *Wings of Fire* by APJ Abdul Kalam, Universities Press, 1999
Testing:
Q1. (a) One essay-type question with an internal alternative on summary, central idea, key incident and theme in about 250 words.   10 marks

   (b) Five short answer type questions to be attempted out of the given eight from the prescribed text in about 30 words each.   5 X 2= 10 marks

Section –B

Q.2. Writing Skills:

(a) Report Writing: Analytical Report and Action Report
Testing: One report to be attempted out of the given two.   7 marks

(b) Developing a story from the given hints.   5 marks

Q.3. Grammar and Vocabulary

(a) Grammar
Prescribed Text: *Oxford Practice Grammar* by John Eastwood, Oxford University Press, 2004
   1. Ex. 1-20   6 marks
      Testing: Attempt any 6 sentences out of the given 8
   2. Ex.21-39   6 marks
      Testing: Attempt any 6 sentences out of the given 8

(b) Vocabulary
Prescribed Text: *The Students' Companion* by Wilfred D. Best, Harper Collins Publishers, 2010
   1. Antonyms: pages 128 to 130   3 marks
      Testing: Attempt any 6 Antonyms out of the given 8
   2. Synonyms: pages 132 to 134   3 marks
      Testing: Attempt any 6 Synonyms out of the given 8

Practical

Total marks: 20
Pass marks: 35%

Topics to be covered
1. Resume Writing   5 marks
2. Dialogue delivery on the given situations   5 marks
3. Facing an interview   5 marks
4. Reading newspaper   5 marks

Book Recommended for Grammar and Composition:
The Written Word by Vandana R. Singh, Oxford University Press, 2006.

Course- VIII

GPB-118: Punjabi Compulsory (ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ)

4 Credits: 3H(L)+2H(P)

ਕੁੱਲ ਅੰਕ 100   ਵਿਸ਼ੇ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 35

ਲਿਖਤੀ ਪਰੀਖਿਆ : 50 ਅੰਕ   ਲਿਖਤੀ ਪਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :17

ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ: 30 ਅੰਕ   ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :11

ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ: 20 ਅੰਕ   ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :07

ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ ਦਾ ਸਮਾਂ : 3 ਘੰਟੇ

ਸਿਲੇਬਸ ਅਤੇ ਪਾਠ ਪੁਸਤਕਾਂ

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

ਭਾਗ-ਅ :– ਪਿੰਜਰ- ਲੇਖਿਕਾ ਅੰਮ੍ਰਿਤਾ ਪ੍ਰੀਤਮ

ਭਾਗ- ੲ :– ਵਿਹਾਰਕ ਵਿਆਕਰਨ

(ੲ.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।

(ੲ.2) ਸ਼ਬਦ ਬਣਤਰ ਅਤੇ ਸ਼ਬਦ ਰਚਨਾ : ਪਰਿਭਾਸ਼ਾ, ਮੁੱਢਲੇ ਸੰਕਲਪ, ਮੂਲ ਰੂਪ, ਅਗੇਤਰ, ਪਛੇਤਰ, ਵਿਉਂਤਪਤ   ਰੂਪ ਅਤੇ ਰੁਪਾਂਤਰੀ ਰੂਪ ।

(ੲ.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।

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

ਭਾਗ-ਸ : ਭਾਗ-ੳ, ਅ, ਅਤੇ ੲ 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 ੳ, ਅ, ੲ ਅਤੇ ਸ ਵਿਚ ਵੰਡਿਆ ਜਾਵੇਗਾ।

3. ਭਾਗ ੳ ਵਿੱਚੋਂ ਕਿਸੇ ਕਹਾਣੀ ਦੇ ਵਿਸ਼ਾ ਵਸਤੂ/ ਸਮੱਸਿਆ/ ਪਾਤਰਾਂ ਦੇ ਆਪਸੀ ਸਬੰਧ ਅਤੇ ਕਹਾਣੀ ਵਿਚ ਰੋਲ ਸਬੰਧੀ ਪ੍ਰਸ਼ਨ ਪੁੱਛਿਆ ਜਾਵੇਗਾ।   (ਤਿੰਨ ਵਿੱਚੋਂ ਇਕ)   ਅੰਕ=07

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

                                                                    (ਤਿੰਨ ਵਿੱਚੋਂ ਕੋਈ ਇਕ) ਅੰਕ = 07

5. ਵਿਆਕਰਨ ਵਾਲੇ ਭਾਗ ਨਾਲ ਸਬੰਧਤ ਵਰਣਨਾਤਮਕ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। (ਤਿੰਨ ਵਿੱਚੋਂ ਕੋਈ ਇਕ)   ਅੰਕ=06

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=5

8. ਭਾਗ ਸ ਦੇ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ 15 ਪ੍ਰਸ਼ਨ ਤਿੰਨਾਂ ਭਾਗਾਂ ਵਿਚੋਂ ਬਰਾਬਰ (ਪੰਜ-ਪੰਜ) ਪੁੱਛੇ ਜਾਣਗੇ।ਵਿਦਿਆਰਥੀ ਨੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਸੰਖੇਪ ਵਿਚ ਉੱਤਰ ਦੇਣੇ ਹੋਣਗੇ ਅਤੇ ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ 2 ਅੰਕ ਹੋਣਗੇ। (ਨੋਟ:ਪੇਪਰ ਵਿਚ ਭਾਗ ੲ ਦੇ ੲ.3 ਅਤੇ ੲ.4 ਵਿਚੋਂ ਸੰਖੇਪ ਉਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ ਨਹੀਂ ਪੁੱਛੇ ਜਾਣਗੇ।)

15x1=15 ਅੰਕ

ਇੰਟਰਨਲ ਅਸੈਸਮੈਂਟ   ਕੁੱਲ ਅੰਕ= 30
 1. ਕਲਾਸ ਹਾਜ਼ਰੀ/ ਘਰੇਲੂ ਇਮਤਿਹਾਨ/ ਅਸਾਈਨਮੈਂਟ
2.1 ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਪਿੰਜਰ ਨਾਵਲ ਦੀ ਫਿਲਮ 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. ਪ੍ਰੈਜਨਟੇਸ਼ਨ ਦੇਣਗੇ।
ਨੋਟ: 2.2 ਦੇ ਉਪਰੋਕਤ ਕਾਰਜ ਲਈ ਸਮਾਗਮਾਂ ਦੀ ਗਿਣਤੀ ਕਲਾਸ ਨਾਲ ਸਬੰਧਤ ਅਧਿਆਪਕ ਦੁਆਰਾ ਨਿਰਧਾਰਤ ਕੀਤੀ ਜਾਵੇਗੀ।

ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ: 20 ਅੰਕ
ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :07

ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ (ਅੰਦਰੂਨੀ ਅਤੇ ਬਾਹਰੀ ਵਿਸ਼ੇਸ਼ਗ ਦੁਆਰਾ ਮੁਲਾਂਕਣ)   4*5= 20 ਅੰਕ
1.ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਬੋਲਣ ਦੀ ਮਹਾਰਤ
2. ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਲਿਖਣ ਦੀ ਮਹਾਰਤ
3. ਪੰਜਾਬੀ ਵਿਚ ਸਿਰਜਣਾਤਮਕ ਸਾਹਿਤ ਲਿਖਣ ਦਾ ਅਭਿਆਸ
4. ਸਬੰਧਿਤ ਕੋਰਸ ਦੇ ਵਿਸ਼ਿਆਂ ਸਬੰਧੀ ਜਾਣਕਾਰੀ ਦਾ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਚ ਲੇਖਣ

ਸਹਾਇਕ ਪਾਠ- ਸਮੱਗਰੀ

1. ਜੋਗਿੰਦਰ ਸਿੰਘ ਪੁਆਰ ਅਤੇ ਹੋਰ, **ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦਾ ਵਿਆਕਰਨ**,(ਭਾਗ ਪਹਿਲਾ), ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਕਾਦਮੀ, ਜਲੰਧਰ, 2009. (ਪੰਨਾ 33 ਤੋਂ 45 ਤੱਕ, 95 ਤੋਂ 113 ਤੱਕ)।

2. ਡਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਵਾਲੀਆ ਅਤੇ ਪਾਰੁਲ ਰਾਏਜ਼ਾਦਾ, **ਪੱਤਰਕਾਰੀ ਅਤੇ ਜਨ ਸੰਚਾਰ**, ਮਦਾਨ ਪਬਲਿਸ਼ਿੰਗ ਹਾਊਸ' ਪਟਿਆਲਾ, 2014. (ਪੰਨਾ 89 ਤੋਂ 95, 103 ਤੋਂ 107, 114 ਤੋਂ 118 ਤੱਕ)।

3. ਹਰਕੀਰਤ ਸਿੰਘ, **ਭਾਸ਼ਾ ਵਿਗਿਆਨ ਅਤੇ ਪੰਜਾਬੀ ਭਾਸ਼ਾ**, ਬਾਹਰੀ ਪਬਲੀਕੇਸ਼ਨ , ਦਿੱਲੀ, 1971.

4. ਬਲਦੇਵ ਸਿੰਘ ਚੀਮਾ, **ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਗਿਆਨ ਅਤੇ ਵਿਆਕਰਨ** (ਤਕਨੀਕੀ ਸ਼ਬਦਾਵਲੀ ਦਾ ਵਿਸਾ 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.

Course

GPB–118 A: Elementary Punjabi (Mudla Gyan)

4 Credits: 3H(L)+2H(P)
Theory

ਕੁੱਲ ਅੰਕ 100

ਲਿਖਤੀ ਪਰੀਖਿਆ : 50 ਅੰਕ

ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ : 30 ਅੰਕ

ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ : 20 ਅੰਕ

ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ ਦਾ ਸਮਾਂ : 3 ਘੰਟੇ

ਵਿਸ਼ੇ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 35

ਲਿਖਤੀ ਪਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :17

ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :11

ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :07

ਭਾਗ ੳ

ਭਾਗ (ੳ.1) ਗੁਰਮੁਖੀ ਵਰਣਮਾਲਾ ਤੇ ਲੇਖਣ ਪ੍ਰਬੰਧ

ਅੱਖਰ ਸਿੱਖਿਆ: ਤਰਤੀਬਵਾਰ ਤੇ ਭੁਲਵੇਂ ਅੱਖਰ।

(ੳ.2) ਅੱਖਰ ਬਣਤਰ : ਅੱਖਰ ਰੂਪ ਅਤੇ ਲੇਖਣ ਦੇ ਨਿਯਮ। 05 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 । 10 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। 10 ਅੰਕ

ਭਾਗ ਸ

ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ ਨਾਲ ਜਾਣ ਪਛਾਣ

(ੳ) ਗਿਣਤੀ (1 ਤੋਂ 50 ਤੱਕ)

(ਅ) ਹਫਤੇ 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 10 ਅੰਕ

ਭਾਗ-ਹ ਸਾਰੇ ਸਿਲੇਬਸ ਤੇ ਅਧਾਰਿਤ 15 ਆਬਜੈਕਟਿਵ ਟਾਈਪ ਪ੍ਰਸ਼ਨ। 15*1=15 ਅੰਕ

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 ਭਾਸ਼ਾ ਸਿੱਖਣ ਦੀ ਸੀਮਾ ਨੂੰ ਧਿਆਨ ਵਿਚ ਰੱਖ ਕੇ ਨਿਸ਼ਚਿਤ ਕੀਤਾ ਜਾਵੇ।
2. ਸਰਲ ਅਤੇ ਸਪੱਸ਼ਟ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣ।
3. **ਵ**ਰਣਾਤਮਕ 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 ਛੋਟ ਜਾਂ ਚੋਣ ਦੇਣੀ ਲਾਜ਼ਮੀ ਹੈ।
6. ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ ਦੇ ਸਾਰੇ ਭਾਗਾਂ ਵਿੱਚੋਂ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣ। ਲੋੜ ਅਨੁਸਾਰ ਛੋਟ 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

ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ : 20 ਅੰਕ   ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :07

ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ (ਅੰਦਰੂਨੀ ਅਤੇ ਬਾਹਰੀ ਵਿਸ਼ੇਸ਼ਗ ਦੁਆਰਾ ਮੁਲਾਂਕਣ)

1. ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਬੋਲਣ ਦੀ ਮੁਹਾਰਤ
2. ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਲਿਖਣ ਦੀ ਮੁਹਾਰਤ
3. ਪੰਜਾਬੀ ਵਿਚ ਸਿਰਜਣਾਤਮਕ ਸਾਹਿਤ ਲਿਖਣ ਦਾ ਅਭਿਆਸ
4. ਸਬੰਧਿਤ ਕੋਰਸ ਦੇ ਵਿਸ਼ਿਆਂ ਸਬੰਧੀ ਜਾਣਕਾਰੀ ਦਾ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਚ ਲੇਖਣ   **4*5= 20 ਅੰਕ**

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.

Course- IX

CPA 101- COMPUTER APPLICATION

1Credits: 2H (P)
Practical

Max. Marks: 50
Pass marks: 35%   **Time Allowed: 3 hours**

1. Study of Computer Components; Booting of Computer and its Shut Down.
2. Practice of some fundamental DOS Commands, TIME, DATE, DIR, COPY, FORMAT, VOL, LABEL, and PATH.
3. Operating System, Use of Mouse, Title Bar, Minimum, Maximum and Close Buttons, Scroll Bars, Menus and Tool Bars; WINDOWS Explorer, Creating Folders, COPY and PASTE functions.
4. MSWORD: Creating a Document, Saving and editing; MSWORD, Use of options from Tool Bars, Format, Insert and Tools (Spelling & Grammar) Alignment of text; MSWORD, Creating a Table, Merging of Cells, Column and Row width.
5. MSEXCEL: Creating a Spreadsheet, Alignment of rows, columns and cells using Format tool bar. MSEXCEL: Entering Expressions through the formula tool bar and use of inbuilt functions, SUM, AVERAGE, and STDEV.
6. MSEXCEL: Data Analysis using different charts. Creating Graphs and Saving with & without data
7. MSACCESS: Creating Database, Structuring with different types of fields;
8. MS Power Point: Preparation of slides on Power Point.
9. GIS: Introduction to GIS, Data analysis with existing Agricultural data by using QGIS.
10. Transforming the data of WORD, EXCEL and ACCESS to other formats.
11. Algorithm and Flow chart with different examples.
12. Internet Browsing: Browsing a Web Page and Creating of E-Mail ID.

SUGGESTED READINGS

- Computer Studies – a First course – J. Shelly and R. Hunt. Pearson Professional Education.
- Programming in BASIC – E. Balagurusamy
- Microsoft Windows XP Manual, Microsoft Office XP Manual publishing Standard Education.

Course- X

VSC–121: VEGETABLE PRODUCTION TECHNOLOGY

3 Credits: 2H(L)+2H(P)
Theory

Max. Marks: 100
External theory: 70   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each.

UNIT-I

Importance of Olericulture. Vegetable gardens. Vegetable origin, classification, area, production and varieties. Package of practices of tomato, brinjal, chillies and okra. Cucurbitaceous vegetables— cucumber, ridge gourd, ash gourd, snake gourd, bottle gourd, bitter gourd and melons. Cole crops – cabbage, cauliflower and knol–khol.

UNIT-II

Package of practices of Bulb crops – onion and garlic. Beans and peas – French beans, cluster beans, dolichos beans, peas and cowpea. Tuber crops – potato, sweet potato, tapioca, colocasia, yams. Root crops – carrot, radish, turnip and beet root. Leafy vegetables – amaranthus, palak, methi. Perennial vegetables – drumstick, coccinia and curry leaf.

Practical

Max. Marks: 50
Pass Marks: 35%   *Time Allowed: 3 Hours*

1. Planning and layout of kitchen garden.
2. Identification of important vegetable seeds and plants.
3. Raising of vegetable nurseries.
4. Transplanting of vegetable seedlings in main field.
5. Layout of kitchen garden and maintenance.
6. Seed extraction in Tomato and Brinjal.
7. Visit to commercial vegetable farms.
8. Intercultural operations in vegetable plots.
9. Sowing of potato, solanaceous fruit crops, root crops and cucurbitaceous vegetables.
10. Seed production in vegetable crops.
11. Harvesting indices of different vegetable crops.
12. Grading and packing of vegetables.

SUGGESTED READINGS

- Dhaliwal M.S. 2014: Hand Book of Vegetable crops., Kalyani publisher
- Fageria M.S. Arya P.S. Choudhary A.K. 2013: Vegetable Crops-Breeding and Seed Production Vol. I, Kalyani Publishers
- Fageria M.S. Choudhary B.R. Dhako R.S. 2013: Vegetable Crops-Production Technology Vol. II, Kalyani Publishers
- Das P.C. 2014; Vegetable Crops of India, Kalyani Publishers
- PAU Ludhiana, 2015: Package of practices for cultivation of vegetables
- Vishnu Swarup,2016: Vegetable science and technology in India, Kalyani Publishers

Course- XI

BCH–122: ELEMENTARY BIOCHEMISTRY

3 Credits: 2H(L)+2H(P)
Theory

Max. Marks: 100
External theory: 70   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each.

UNIT-I

General Introduction and importance of biochemistry. Biomolecules: Classification, structure, general properties and functions of carbohydrates, proteins & lipids. Enzymes: classification, factors affecting enzyme activity and industrial application. Nucleic acids: nucleosides & nucleotides; structure of DNA & RNA, and their importance. Minerals: Functions of various major and trace minerals. Role of vitamins: water soluble and fat soluble vitamins, deficiency diseases and symptoms, hypervitaminosis.

UNIT-II

Plant-water relations: diffusion & osmosis, absorption & transpiration, guttation, water balance and stress, mechanism of stomatal opening and closing. Plant Hormones: role of auxins, gibberellin, cytokinins, ethylene and abscisic acid in the regulatory cell extension, germination, growth and development. Defense system in plants: primary and secondary metabolites.

Practical

Max. Marks: 50
Pass Marks: 35%   *Time Allowed: 3 Hours*

1. Preparation of Standard solutions.
2. Introduction to basic laboratory instruments.
3. Determination of moisture, ash and acidity in a given sample.
4. Estimation of protein and fat in the given sample.
5. Estimation of reducing and non-reducing sugars in gur, sugarcane and molasses.
6. Determination of total solids in the given food products.
7. Determination of crude fibre in the given food.

SUGGESTED READINGS

- Lehninger: Principles of Biochemistry, 3rd edition, by David L. Nelson and M.M. Cox 2000. Maxmillan/ Worth publishers.
- Jain, J. L., Jain, S., Jain, N., 2007, Elementary Biochemistry (3rd edition), S. Chand & Company Pvt. Ltd., New Delhi.
- Dennis, D.T., Turpin, D.H., Lefevre, D.D. and Layzell, D.B.(eds.) 1997, *Plant Metabolism* (2nd Edition). Longman, Essex, England.
- Galston, A.W. 1989. *Life Processes in Plants*. Scientific American Library, Springer, Verlag, New York, USA.
- Heldt, H.2003. *Plant Biochemistry*, Academic Press, Indian Edition, Reed Elsevier India Pvt. Ltd., New Delhi.
- HopkinS, W.G. 1999, *Introduction to Plant Physiology* (2nd Edition). John Wiley & Sons, Inc., New York, USA.
- Lea, P.J. and Leegood, R.C. 1999, *Plant Biochemistry and Molecular Biology*. John Wiley & Sons, Chickester, England.
- Mohr, H. and Schopfer, P. 1995. *Plant Physiology*. Springer Verlag, Berlin, Germany.
- Salisbury, F.B. and Ross, C.W. 2005, *Plant Physiology* (4th Edition). Eastern Press Bangalore, Pvt. Ltd.
- Tiaz, I and Zeiger, E. 2006. *Plant Physiology* (4th Edition) Sinauer Associates, Inc., Publishers, Massachusetts, USA.

Course- XII

FOR–123: INTRODUCTORY FORESTRY

3 Credits: 2H(L)+2H(P)
Theory

Max. Marks: 100
External theory: 70   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each.

UNIT-I

Forestry – definition, scope and important terminology. Status of forests in India and their role. History of forestry development in India. National and International Forestry Organizations. Distribution of forests and their classification. Locality factors: climatic, edaphic, topographical and biotic. Tending operations. Agro forestry, farm forestry and social forestry – definition, objectives and need.

UNIT-II

Role of trees in rural economy. Choice of species w.r.t. site/economic uses and constraints of tree growing. Tree propagation and planting methods. Deforestation – forms, causes and remedial measures. Forest management: growing stock, normal forest, sustained yield, increment and rotation. Forest utilization–major and minor forest products. Forest policy and laws.

Practical

Max. Marks: 50
Pass Marks: 35%   *Time Allowed: 3 Hours*

1. Identification of trees.
2. Measurement of tree height, diameter, girth, bark thickness, increment, age and volume.
3. Nursery raising and silvicultural practices of some economically important forest trees of Punjab viz., safeda, poplar, shish am, mulberry, kikar, sagwan, dek, bamboo and subabul.

SUGGESTED READINGS

- Chauhan, D.M.S. *Vegetable Production in India*, 1969, Ram Prasad & Sons, Agra-282003.
- Thompson, C. &William, C Willy *Vegetable Crops*, 1977, Tata McGraw Hills Co., Net. of India, New Delhi.
- Dhosi, N.S. & Nandpuri, K.S. *Vegetable Growing in India*.
- Gopalaswami   *Complete Gardening in India,* 1970, Kossali Press, Banglore.
- Lanchastor S. Percy *Gardening in India*, 1977, Oxford and IDE Publishing Co., New Delhi.
- Swarup Krishan, *Garden Flowers*, 1979, N.B.T. of India, New Delhi.
- Randhawa, M.S. *Beautiful Gardens*, Govt. of India Publications.
- Randhawa, M.S. *Beautiful Trees*, Govt. of India Publications.

Course- XIII

SSC–124: SOIL CHEMISTRY, SOIL FERTILITY AND NUTRIENT MANAGEMENT

3 Credits: 2H(L)+2H(P)
Theory

Max. Marks: 100
External theory: 70   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each.

UNIT-I

Soil as a source of plant nutrients. Essential and beneficial elements– criteria of essentiality, forms of nutrients in soil, mechanisms of nutrient transport to plants. Factors affecting nutrient availability to plants. Measures to overcome deficiencies and toxicities. Problem soils– acid, salt affected and calcareous soils, characteristics, nutrient availabilities, Reclamation– mechanical, chemical and biological methods. Fertilizer and insecticides and their effect on soil, water and air. Irrigation water– quality of irrigation water and its appraisal. Soil fertility– approaches for soil fertility evaluation.

UNIT-II

Methods of soil testing. Critical levels of different nutrients in soil. Plant analysis– DRIS approach, critical levels in plants. Rapid tissue tests. Indicator plants. Biological methods of soil fertility evaluation. Soil test based fertilizer recommendations to crops. Factors influencing nutrient use efficiency (NUE) in respect of N, P, K, S, Fe and Zn fertilizers. Source, method and scheduling of nutrients for different soils and crops grown under rainfed and irrigated conditions.

Practical

Max. Marks: 50
Pass Marks: 35%   *Time Allowed: 3 Hours*

1. Principles of analytical instruments and their calibration and applications
2. Colorimetry and flame photometry.
3. Estimation of available N, P, K, S and Zn in soils.
4. Estimation of pH, Electrical Conductivity, carbonates, bicarbonates, Ca^{++} and Mg^{++} in soil and water.

5. Lime requirement and gypsum requirement of problem soils.
6. Estimation of N, P and K in plants.

SUGGESTED READINGS

- John L., Havlin, Samuel L., Tisdale, Werner L., Nelson, James D., Beaton, 2014; Soil Fertility and Fertilizers, 8th edition, Prentice Hall India
- Kim H. Tan, 2010, Principles of Soil Chemistry, CRC Press
- Brady N.C. Weil R.R. 2014; The Nature and Properties of Soils, 14th edition, Pearson Education
- Fageria N.K. 1992; Maximizing Crop Yields, Marcel Dekker
- Bear F.E. 1976;*Chemistry of the Soil*., Oxford & I.B.H., New Delhi.
- Das P.C. 2012; *Soils in India*, Rept. Kalyani Publishers, Ludhiana
- Richards L.A. 1977; *Diagnosis and Improvement of Saline and Alkali soils*, U.S.D Handbooks No. 60, Oxford & IBH., Pub. Calcutta.

Course- XIV

PBG–125: PRINCIPLES OF GENETICS

3 Credits: 2H(L)+2H(P)
Theory

Max. Marks: 100
External theory: 70   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each.

UNIT-I

Mendel's laws of inheritance. Types of gene action. Qualitative and quantitative traits. Multiple factor hypothesis. Cytoplasmic inheritance. Mutations – methods of inducing mutations and detection of sex linked and autosomal mutations. ClB technique. Gene expression and differential gene activation, Lac operon and fine structure of gene. Ultra structure of cell and cell organelles and their functions. Study of chromosome structure, morphology, number and types. Karyotype and Idiogram, Mitosis and meiosis.

UNIT-I

DNA and its structure, function, types, modes of replication and repair. RNA and its structure, function and types. Transcription. Translation – genetic code and outline of protein synthesis. Crossing over and factors affecting it. Mechanism of crossing over and cytological proof of crossing over. Linkage and estimation of linkage. Numerical chromosomal aberrations and evolution of different crop species like cotton, wheat, tobacco**,** triticale and *Brassicas*. Structural chromosomal aberrations.

Practical

Max. Marks: 50
Pass Marks: 35%   *Time Allowed: 3 Hours*

1. Study of simple and compound microscope
2. Preparation and use of fixatives and stains for light microscopy
3. Identification of various stages of mitosis and meiosis
4. Monohybrid, Dihybrid and Trihybrid ratios and their modifications
5. Chi–square analysis and Interaction of factors
6.   Epistatic factors, additive factors and Inhibitory factors
7.   Linkage– two point and three point test cross
8. Induction of polyploidy using colchicines
9. Induction of chromosomal aberrations using chemicals

SUGGESTED READINGS

*   Ram Mahabal, Fundamentals of Cytogenetics and Genetics, 2010, Prentice Hall India
*   Singh. B.D, Fundamentals of Genetics, 2015, Kalyani Publishers
*   Singh. Phundan Genetics at a Glance, 2015, Kalyani Publishers
*   Singh. Phundan Elements of Genetics, Rept. 2016, Kalyani Publishers
*   Khanna V.K., Elements of Genetics, Laboratory Manual, 2003, Kalyani Publishers
*   Gardner B.J, Simmons M.J, Smusted D.P Principles of Genetics

Course- XV

ZOO–126: BASIC ZOOLOGY

4 Credits: 3H(L)+2H(P)
Theory

Max. Marks: 80
External theory: 50   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each.

UNIT-I
Cell structure (Animal and Plant cell), Cell division, Biomolecules (DNA and RNA). Simple and compound tissues (Epithelial, Muscular, Nervous and Connective). Functional organization of various systems of a Rabbit (Digestive, Respiratory, Circulatory, Nervous and urinogenital system).

UNIT-II

Binomial nomenclature, classification (upto classes) and general survey of animal kingdom with special reference to *Fasciola*, *Taenia*, *Ascaris*, *Pheretima*, Grasshopper, Silkworm, Beetle, Red cotton Bug, Honey bee, Mosquito, Housefly, *Catla*, Rohu, Frog, *Naja naja*, Egret, Goat, Sheep, Rat, Rabbit). Common ecto and endoparasites of man and domestic animals (*Entamoeba histolytica, Taenia solium*, *Fasciola hepatica*, *Ancylostoma duodenale*, *Ascaris lumbricoides, Trichinella spiralis, Pediculus humanus, Sarcoptes scabiei*, Ticks, Mites, Fleas and Lice)

Practical

Max. Marks: 20
Pass Marks: 35%   *Time Allowed: 3 Hours*

1. Study of cell structure and cell division
2. Microscopic study of histological preparations of simple and compound tissues
3. Anatomy of a mammal (skin, spleen, liver, pancreas, testis, ovaries, kidney)
4. Important skeletal parts of rabbit
5. General survey of animal kingdom up to classes of specimens mentioned in theory

SUGGESTED READINGS

- Singh S.P. Tomar B.S. 2014; Cell Biology, 10th Ed., Rastogi Publications, New Delhi
- Saxena R.K. Saxena S. 2008; Comparative Anatomy of Vertebrates, 2nd Ed., Viva Books Publishers, New Delhi
- Verma P.S. 2014; A Manual of Practical Zoology Chordates,11th Ed., S. Chand Publishers, New Delhi
- Verma P.S. 2014; A Manual of Practical Zoology Invertebrates, 2nd Ed., S. Chand Publishers, New Delhi
- Tyagi M.P. Bhatia K.N. 2014; Elementary Biology, Vol I, Trueman Publishers
- Dhami P.S. Dhami J.K. 2015; A text Book of Zoology, Vol I, Pradeep Publications, Jalandhar, Punjab

Course- XV

MATH–126: MATHEMATICS–II

4 Credits: 4H(L)
Theory

Max. Marks: 100
External theory: 70   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

INSTRUCTION TO THE CANDIDATE
The question paper will be divided into three Sections A, B and C. Section A and B will consist of four descriptive questions each of 10 marks each from Unit I and Unit II of syllabus, respectively. Candidates will be required to attempt any two questions from Section A and Section B. Section C will be compulsory consisting 15 short answer type questions from whole of the syllabus carrying 2 marks each.

Theory

UNIT-I

1) Trignometry: Sexagensimal, centesimal and circular measure of an angle. Definitions of T-ratio's and the relations connecting them. T-ratio's of 0, 6, 45, 60, 90 (no proofs). Evaluation of T-ratio's of allied angles and 2A, 3A (no proofs) and easy identities based on them and identities based on the formulae for sin P + sin Q and cos P – cos Q and their converse conditional identities, relations between the sides and the angles of a triangle i.e. sine cosine, and projections formulae, logarithm and their applications (based on the use of tables only) to simplification of fractions solution of right angled triangles. Solution of oblique angled triangles when (i) three sides are given (ii) two angles and a side are given (iii) two sides and an angle are given, graphs of sin x and cos x and reading from graphs.

2) Elementary Calculus: Idea of function and limit, evaluation of the limit algebric, functions, Lt and Lt sin c. Differentiation of simple algebric trignometric, inverse trignometric, exponential and logarithmic (Proofs of

$$\frac{d}{dx} \log (ax+b) = \frac{a}{(ax+b)} \quad \text{and} \quad \frac{d}{dx} (e^X) = e^X$$

Theorems on differentiation of the sum, difference, the product & the quotient of functions. The further differentiation of a simple function of function, differentiation of parametric functions and of one function with regard to another function (use of transermation excluded).

UNIT-II

1) Integration of the standard forms as inverse of differentiation

$$x^n, (ax+b)^n, \quad \frac{1}{ax+b} \sin x, \ \cos x, \ \sec^2 x, \quad \frac{1}{a^2 - x^2}$$

and $\qquad \frac{}{a^2 + x^2}$

and easy examples based on their application
easy applications of the following:

$$f^n (x) \ f(x) \ dx \quad \frac{f(x)}{} dx \quad \tan x \ dx \ f(x)$$

$\cot x \ dx, \quad \sec x \ dx \quad \cos x \ dx$

2) Elements of matrices and determinants. Kinds, Properties of determinants, Adjoint of matrix, Inverse of matrix, Solution of simultaneous equantions; Cramer's rule, matrix method.

BOOKS RECOMMENDED

1. *Algebra* by D. C. Kapoor & Gurbax Singh
2. *Algebra* by T. N. Nagpal & K. K. Gupta.
3. *Comprehensive Calculus* by R. S. Dehiya.
4. *New Style Calculus* for T. D. C. – I.
5. *New Style Co-ordinator Geometry* by R. K. Sondhi
6. *Trignometry* by Jiwan
7. mensuration by Pic Point.

Course- XVI

ENG–127: **ENGLISH COMMUNICATION SKILLS**

4 Credits: 3H(L)+2H(P)
Theory
COMMON FOR B.SC (MEDICAL, NON-MEDICAL, BIO-TECH., AGRICULTURE, CSM), BCA PART-I

Max. Marks: 80
External theory: 50   **Time Allowed: 3 hours**
Internal Assessment: 30
Pass marks: 35%

Section - A
Text Prescribed: *Flames of Inspiration,* edited by Department of English, Khalsa College, Patiala
Testing:
Q1. (a) One essay-type question with an internal alternative on summary, central idea and theme in about 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.   5 X 2=10 marks

Section-B

Q.2. Writing Skills:

a. Letter Writing: Formal and Informal letters
   Testing: One letter to be attempted out of the given two   7 marks

b. Banner Writing on the given topic (Social, Political, Economic and Religious) 5 marks

Q.3. Grammar and Vocabulary:

  (a) Grammar
  Prescribed Text: *Oxford Practice Grammar* by John Eastwood, Oxford University Press, 2004

   1. Ex. 40-59   6 marks
      Testing: Attempt any 6 sentences out of the given 8
   2. Ex.60 to 75   6 marks
      Testing: Attempt any 6 sentences out of the given 8

(b) Vocabulary
   Prescribed Text: *The Students' Companion* by Wilfred D. Best, Harper Collins Publishers, 2010

1. Antonyms: pages 131 & 132   3 marks
   Testing: Attempt any 6 Antonyms out of the given 8
2. Synonyms: pages 135 &136   3 marks
   Testing: Attempt any 6 Synonyms out of the given 8

Practical (20 marks)

Topics to be covered

1. Describing the Recipe of your favourite dish   5 marks
   (step- wise description of the dish is required)
2. Describing the directions to someone who   5 marks
   wants to reach a particular destination
3. Telephonic Conversation in pairs   5 marks
4. Extempore- speaking: impromptu on the given topics   5 marks

B.SC. AGRICULTURE (HONS.) (SEMESTER-II)
Course- XVII
GPB-128: PUNJABI COMPULSORY (ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ)

4 Credits: 3H(L)+2H(P)
Theory

ਕੁੱਲ ਅੰਕ 100   ਵਿਸ਼ੇ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 35
ਲਿਖਤੀ ਪਰੀਖਿਆ : 50 ਅੰਕ   ਲਿਖਤੀ ਪਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :17
ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ : 30 ਅੰਕ   ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :11
ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ : 20 ਅੰਕ   ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :07
ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ ਦਾ ਸਮਾਂ : 3 ਘੰਟੇ

ਸਿਲੇਬਸ ਤੇ ਪਾਠ ਪੁਸਤਕਾਂ

ਭਾਗ:-ੳ **ਜੀਵਨ ਜੁਗਤ** - ਖ਼ਾਲਸਾ ਕਾਲਜ ਪਟਿਆਲਾ ਵੱਲੋਂ ਪ੍ਰਕਾਸ਼ਿਤ

ਭਾਗ:-ਅ **ਵਿਹਾਰਕ ਵਿਆਕਰਨ**

(ਅ.1) ਭਾਸ਼ਾ ਵੰਨਗੀਆਂ, ਭਾਸ਼ਾ ਦਾ ਟਕਸਾਲੀ ਰੂਪ, ਭਾਸ਼ਾ ਅਤੇ ਉਪ-ਭਾਸ਼ਾ ਦਾ ਅੰਤਰ ਅਤੇ ਅੰਤਰ ਸਬੰਧ. ਪੰਜਾਬੀ
ਉਪ- ਭਾਸ਼ਾਵਾਂ ਦੇ ਪਛਾਣ ਚਿੰਨ।

(ਅ.2) ਵਾਕ ਬਣਤਰ: ਕਾਰਜ ਦੇ ਆਧਾਰ 'ਤੇ ਅਤੇ ਬਣਤਰ ਦੇ ਆਧਾਰ 'ਤੇ।

(ਅ.3) ਚਿੱਠੀ ਪੱਤਰ (ਸਮਾਜਿਕ ਸਾਰੋਕਾਰਾਂ ਨਾਲ ਸਬੰਧਿਤ ਨਿੱਜੀ ਅਤੇ ਦਫ਼ਤਰੀ ਚਿੱਠੀ-ਪੱਤਰ)

(ਅ.4) ਸਥਾਨਕ ਕਾਲਜ ਦੇ ਪੰਜਾਬੀ ਵਿਭਾਗ ਵੱਲੋਂ ਪ੍ਰਕਾਸ਼ਿਤ ਕੀਤੇ ਗਏ ਤਕਨੀਕੀ ਸ਼ਬਦਾਵਲੀ ਕੋਸ਼ ਵਿੱਚੋਂ 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 ੳ, ਅ ਅਤੇ ੲ ਵਿੱਚ ਵੰਡਿਆ ਜਾਵੇਗਾ।

3. ਭਾਗ ੳ ਵਿੱਚੋਂ

(1) ਕਿਸੇ ਇਕ ਨਿਬੰਧ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ/ ਨਿਬੰਧ ਕਲਾ ਜਾਂ ਲੇਖਕ ਦਾ ਯੋਗਦਾਨ। (ਤਿੰਨ ਵਿੱਚੋਂ ਇਕ) 07 ਅੰਕ

(2) ਨਿਬੰਧਾਂ ਵਿਚਲੇ ਵਿਚਾਰਾਂ ਸਬੰਧੀ ਛੋਟੇ ਪ੍ਰਸ਼ਨ   (ਪੰਜ ਵਿੱਚੋਂ ਦੋ) 2x3=06 ਅੰਕ

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

(ਤਿੰਨ ਵਿੱਚੋਂ ਕੋਈ ਇਕ) 07 ਅੰਕ

5. ਕਿਸੇ ਇਕ ਵਿਸ਼ੇ 'ਤੇ ਚਿੱਠੀ ਪੱਤਰ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ   (ਤਿੰਨ ਵਿੱਚੋਂ ਇਕ) 05 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 ੲ ਦੇ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ 15 ਪ੍ਰਸ਼ਨ, ਦੋ ਭਾਗਾਂ ੳ ਅਤੇ ਅ, ਵਿੱਚੋਂ 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 ਵਿੱਚੋਂ
ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ ਨਹੀਂ ਪੁੱਛੇ ਜਾਣਗੇ।)

15x1=15 ਅੰਕ

ਇੰਟਰਨਲ ਅਸੈਸਮੈਂਟ   ਕੁੱਲ 30 ਅੰਕ

3. ਕਲਾਸ ਹਾਜ਼ਰੀ/ਘਰੇਲੂ ਇਮਤਿਹਾਨ/ਅਸਾਈਨਮੈਂਟ

4. ਸਿਲੇਬਸ ਨਾਲ ਸਬੰਧਿਤ ਪਾਠ ਪੁਸਤਕ ਦੇ ਸਾਰੇ ਨਿਬੰਧਕਾਰਾਂ ਦਾ ਜੀਵਨ ਬਿਓਰਾ (Profile) ਚਿਤਰਾਂ ਸਮੇਤ ਤਿਆਰ ਕਰਨਾ।

<div align="center">ਜਾਂ</div>

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

ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ (ਅੰਦਰੂਨੀ ਅਤੇ ਬਾਹਰੀ ਵਿਸ਼ੇਸ਼ਗ ਦੁਆਰਾ ਮੁਲਾਂਕਣ)   4*5= 20 ਅੰਕ

1.ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਬੋਲਣ ਦੀ ਮੁਹਾਰਤ

2. ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਲਿਖਣ ਦੀ ਮੁਹਾਰਤ

3. ਪੰਜਾਬੀ ਵਿਚ ਸਿਰਜਨਾਤਮਕ ਸਾਹਿਤ ਲਿਖਣ ਦਾ ਅਭਿਆਸ

4. ਸਬੰਧਿਤ ਕੋਰਸ ਦੇ ਵਿਸ਼ਿਆਂ ਸਬੰਧੀ ਜਾਣਕਾਰੀ ਦਾ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਚ ਲੇਖਣ

<div align="center">

ਸਹਾਇਕ ਪਾਠ- ਸਮੱਗਰੀ

</div>

1. ਹਰਕੀਰਤ ਸਿੰਘ, ਭਾਸ਼ਾ ਵਿਗਿਆਨ ਅਤੇ ਪੰਜਾਬੀ ਭਾਸ਼ਾ,ਬਾਹਰੀ ਪਬਲੀਕੇਸ਼ਨ , ਦਿੱਲੀ.1971.

2. ਬਲਦੇਵ ਸਿੰਘ ਚੀਮਾ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਗਿਆਨ ਅਤੇ ਵਿਆਕਰਨ (ਤਕਨੀਕੀ ਸ਼ਬਦਾਵਲੀ ਦਾ ਵਿਸਾ 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 ਵਿਚ 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.

Course- XVII

GPB–128 A: ELEMENTARY PUNJABI (MUDLA GYAN)

4 Credits: 3H(L)+2H(P)
Theory

ਕੁੱਲ ਅੰਕ 100	ਵਿਸ਼ੇ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ : 35
ਲਿਖਤੀ ਪਰੀਖਿਆ : 50 ਅੰਕ	ਲਿਖਤੀ ਪਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :17
ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ : 30 ਅੰਕ	ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :11
ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ : 20 ਅੰਕ	ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਲੋੜੀਂਦੇ ਅੰਕ :07
ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ ਦਾ ਸਮਾਂ : 3 ਘੰਟੇ	

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 10

(2) ਸ਼ਬਦਾਂ ਦੀਆਂ ਸ਼੍ਰੇਣੀਆਂ ਤੇ ਵਿਆਕਰਨਕ ਵਰਗਾਂ ਦੀ ਪਛਾਣ

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

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

　　(ਅ)ਵਿਆਕਰਨਕ ਵਰਗਾਂ ਦੀ ਪਛਾਣ ਤੇ ਵਰਤੋਂ

　　　　(ਲਿੰਗ, ਵਚਨ, ਪੁਰਖ, ਕਾਲ)　　　　　　　　　ਅੰਕ 07

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, ਪਛਾਣ ਤੇ ਵਰਤੋਂ
　　　　(ਵਾਕੰਸ਼, ਉਪ-ਵਾਕ ਤੇ ਵਾਕ)

　　(ੲ) ਸ਼ਬਦਾਂ ਦਾ ਵਿਆਕਰਨਕ ਮੇਲ: ਸਿਧਾਂਤ ਤੇ ਵਿਹਾਰ　　ਅੰਕ 10

(2) ਵਿਸ਼ਰਾਮ ਚਿੰਨ੍ਹਾਂ ਦੀ ਪਛਾਣ ਤੇ ਵਰਤੋਂ।　　　　　ਅੰਕ 08

　　ਭਾਗ–ੲ　　ਸਾਰੇ ਸਿਲੇਬਸ ਤੇ ਅਧਾਰਿਤ ਆਬਜੈਕਟਿਵ ਟਾਈਪ ਪ੍ਰਸ਼ਨ।　　ਅੰਕ 15*1=15
　　　　　　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. **ਵ**ਰਣਾਤਮਕ ਪ੍ਰਸ਼ਨ ਨਾ ਪੁੱਛੇ ਜਾਣ।
5. ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਵਿਆਕਰਨ ਦੀ ਮੁੱਢਲੀ ਜਾਣਕਾਰੀ ਸਬੰਧੀ ਸੰਖੇਪ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣ। ਲੋੜ ਅਨੁਸਾਰ ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਛੋਟ 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।

ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ (ਅੰਦਰੂਨੀ ਅਤੇ ਬਾਹਰੀ ਵਿਸ਼ੇਸ਼ਗ ਦੁਆਰਾ ਮੁਲਾਂਕਣ)

    1.ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਬੋਲਣ ਦੀ ਮੁਹਾਰਤ

    2. ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਲਿਖਣ ਦੀ ਮੁਹਾਰਤ

    3. ਪੰਜਾਬੀ ਵਿਚ ਸਿਰਜਣਾਤਮਕ ਸਾਹਿਤ ਲਿਖਣ ਦਾ ਅਭਿਆਸ

    4. ਸਬੰਧਿਤ ਕੋਰਸ ਦੇ ਵਿਸ਼ਿਆਂ ਸਬੰਧੀ ਜਾਣਕਾਰੀ ਦਾ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਚ ਲੇਖਣ   **4*5= 20 ਅੰਕ**

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.