

**ORDINANCES AND OUTLINES OF TESTS,
SYLLABI AND COURSES OF READING**

FOR

BACHELOR OF VOCATION

(FOOD PROCESSING & ENGINEERING)

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

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 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 'Si' is the SGPA of the 'i'th semester 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.

- 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 are 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 graduates. eg: B.Voc. Food Processing & Engineering has Food Industry Capacity and Skill Initiative (FICSI)
- o. National Skill Qualification Framework (NSQF):** B. Voc. Programme has been designed as per National Skill Qualification Framework (NSQF) emphasizing on skill based education. There are four levels of NSQF in the B.Voc. programme such as Level 4 is certificate, Level 5 is Diploma, Level 6 is Advanced Diploma and Level 7 is B.Voc. Degree.
- 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 degree, 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 BACHELOR OF VOCATION (B.VOC.)

Bachelor of Vocation (B. Voc.) is launched under the scheme of University Grants Commission for skill development based on higher education leading to Bachelor of Vocation (B. Voc.) Degree, with multiple exits as Certificate/Diploma /Advanced Diploma/Degree under the National Skill Qualification framework (NSQF).The B. Voc. Programme incorporate specific job roles and their National Occupational Standards along broad based general education. B. Voc. 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 B.Voc 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 B.Voc degree courses 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 B.Voc course 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 advanced diploma or B.Voc degree level course(s). An academic progression for the students in vocational stream is illustrated below:

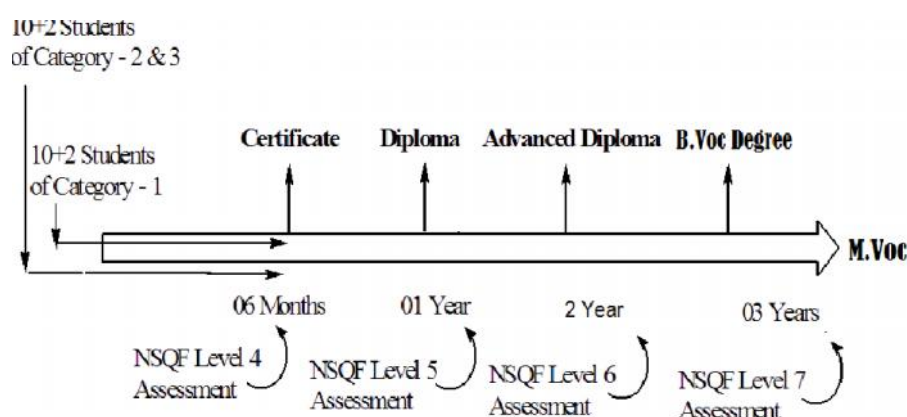


Fig. 1: Assessment of Skill Component under NSQF in Vocational Courses

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 semester	Diploma
6	72	48	120	Four semester	Advanced Diploma
7	108	72	180	Six semester	B.Voc Degree

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 weight age 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 Advanced 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 three 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
Advanced Diploma	Level – 6	72 credits
B.Voc Degree	Level – 7	108 credits

The skill credits indicated above at a particular level is cumulative to the level concerned *i.e.* a candidate in advanced diploma level will be assessed for NSQF level – 6 to acquire 72 credits of skill component will be considered for overall 72 credits only.

Similarly for B.Voc degree, the 108 credits of NSQF level 7 will be inclusive of the credits awarded at NSQF level 4, 5 and 6 for the skill competence of candidate assessed at different stages before he/she has acquired the skill competence at NSQF level 7.

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.

B.Voc Course will be run on Credit Based Semester System as described in the Introduction.

2. ELIGIBILITY FOR ADMISSION IN B.VOC.

2.1 The minimum educational qualification for admission into B.Voc degree course will be class XII pass (Any stream) or vocational from any recognized board or university.

2.2 Equal weight age, at par with other subjects, should be given to vocational subjects at +2 level while considering the students for admission into B.Voc.

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 advanced 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 B.Voc. 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 Similarly, to qualify for admission to 5th semester of the course, the student may be admitted provisionally if the result of 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.

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 consecutive two 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 two attempts to clear the Supplementary Examination. If the candidate does not clear the lower examination within stipulated period the higher result of the candidate will stand automatically cancelled.
- 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 5th semester of Three 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.
- 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 Undergraduate/ course 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 B.Voc. 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. The NSQF level Assessment will be done by Sector Skill Council i.e. Food Industry Capacity and Skill Initiative (FICSI).

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 HOD.

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 'C_i' is the number of credits of the *i*th course component and 'G_i' is the grade point scored by the student in the *i*th 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 'S_i' is the SGPA of the 'i'th semester and C_i 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** (S_i) = $\Sigma(C_i \times G_i) / \Sigma C_i$

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 : 30 SGPA : 6.0
Semester 5	Semester 6		
Credit : 30 SGPA : 6.3	Credit : 30 SGPA : 8.0		

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

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 B.Voc degree or Advanced 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 B.Voc. degree or Advanced 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:
 - B. Voc. (Food processing& Engineering)
 - Advanced Diploma (Food Processing& Engineering)
 - Diploma (Food Processing& Engineering)
 - Certificate (Food Processing& Engineering)
 - 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 and 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.
- 4.4.9. In case the ordinance is silent about any issue, it will be decided by the College Principal in consultation with the Board of the Studies of the 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	1st	Division with Distinction
CGPA 6.0 or more but less than 7.5	1st	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 HOD 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.
- 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.**

**SCHEME OF EXAMINATION AND SYLLABI
BACHELOR OF VOCATION FOOD PROCESSING AND ENGINEERING
OUTLINE FOR PAPERS
FOR FIRST YEAR (SEMESTER-I)
2016-17 AND 2017-18 EXAMINATIONS**

Code	Title of Paper	Credits	University Examination	Internal Assessment	Max. Marks	Exam. Duration Hours
B.VFPE -111 B.VFPE -111(A)	Punjabi Compulsory / Elementary Punjabi	4	70	30	100	3
B.VFPE-112	English Communication Skills I	4	70	30	100	3
B.VFPE-113	Basics of food processing	4	70	30	100	3
B.VFPE-114	Bakery Science & Technology	4	70	30	100	3
B.VFPE-115	Basics of food safety & microbiology	4	70	30	100	3
B.VFPE-116	Practical Paper pertaining to Bakery Science & Technology	5	70	30	100	3
B.VFPE-117	Practical Paper pertaining to Basics of food safety & microbiology	5	70	30	100	3
Total		30	490	210	700	

1. The breakup of marks for the practical will be as under:
 - i. Internal Assessment 30 Marks
 - ii. Viva Voce & File (External Evaluation) 20 Marks
 - iii. Practical Performance & write up (External Evaluation) 50 Marks

2. The breakup of marks for the internal assessment for theory Subjects will be as under:
 - i. Average of Both Mid Semester Tests / Internal Examinations 12 Marks
 - ii. Written Assignment/Project Work etc. 12 Marks
 - iii. Attendance 06 Marks

**SCHEME OF EXAMINATION AND SYLLABI
BACHELOR OF VOCATION FOOD PROCESSING AND ENGINEERING
FOR FIRST YEAR (SEMESTER-II)
2016-17 AND 2017-18 EXAMINATIONS**

Code	Title of Paper	Credits	University Examination	Internal Assessment	Max. Marks	Exam. Duration Hours
B.VFPE -211 B.VFPE-211 (A)	Punjabi Compulsory / Elementary Punjabi	4	70	30	100	3
B.VFPE-212	English Communication Skills II	4	70	30	100	3
B.VFPE-213	Principles of Food Preservation	4	70	30	100	3
B.VFPE-214	Basics of Food Packaging	4	70	30	100	3
B.VFPE-215	Food Packaging Techniques	4	70	30	100	3
B.VFPE-216	Practical paper pertaining to basics of food packaging	5	70	30	100	3
B.VFPE-217	Practical paper pertaining to food packaging techniques	5	70	30	100	3
		30	490	210	700	

1. The breakup of marks for the practical will be as under:

i. Internal Assessment	30 Marks
ii. Viva Voce & File (External Evaluation)	20 Marks
iii. Practical Performance & write up (External Evaluation)	50 Marks

2. The breakup of marks for the internal assessment for theory Subjects will be as under:

i. Average of Both Mid Semester Tests / Internal Examinations	12 Marks
ii. Written Assignment/Project Work etc.	12 Marks
iii. Attendance	06 Marks

B.VFPE-111 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 ਸਾਰੇ ਕੋਰਸਾਂ ਦੇ ਭਾਗ ਪਹਿਲਾ ਲਈ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਵਿਸ਼ੇ ਦਾ ਸਿਲੇਬਸ

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- ਈ :- ਵਿਹਾਰਕ ਵਿਆਕਰਨ

(ਈ.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।

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

(ਈ.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।

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

ਭਾਗ-ਸ : ਭਾਗ-ੳ, ਅ, ਈ ਅਤੇ ਸ 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 ਲ਼, ਅ, ਈ ਅਤੇ ਸ ਵਿੱਚ ਵੰਡਿਆ ਜਾਵੇਗਾ।

3. ਭਾਗ ਲ਼ 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 ਸੰਬੰਧੀ 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 ਏ ਦੇ ਏ.3 ਅਤੇ ਏ.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 ਕਿਰਸਾਨੀ 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. ਪ੍ਰੈਜ਼ਨਟੇਸ਼ਨ ਦੇਣਗੇ।
ਉਪਰੋਕਤ ਕਾਰਜ ਲਈ ਸਮਾਗਮਾਂ ਦੀ ਗਿਣਤੀ ਕਲਾਸ ਨਾਲ ਸਬੰਧਤ ਅਧਿਆਪਕ ਦੁਆਰਾ ਨਿਰਧਾਰਤ ਕੀਤੀ ਜਾਵੇਗੀ।

ਸਹਾਇਕ ਪਾਠ- ਸਮੱਗਰੀ

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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.

B.VFPE-111 (A) 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 ਸਾਰੇ ਕੋਰਸਾਂ ਦੇ ਭਾਗ ਪਹਿਲਾ ਲਈ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਵਿਸ਼ੇ ਦੀ ਥਾਂ 'ਤੇ ਪੜ੍ਹਾਇਆ ਜਾਣ ਵਾਲੇ ਵਿਸ਼ੇ ਦਾ ਸਿਲੇਬਸ ।

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) ਗਰੁਮੁਖੀ ਵਰਣਮਾਲਾ ਤੇ ਲੇਖਣ ਪ੍ਰਬੰਧ

ਅੱਖਰ ਸਿੱਖਿਆ: ਤਰਤੀਬਵਾਰ ਤੇ ਭੁਲਵੇਂ ਅੱਖਰ।

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

12 ਅੰਕ

ਭਾਗ ਅ

ਗਰੁਮੁਖੀ ਅੱਖਰ ਤੇ ਪੰਜਾਬੀ ਧੁਨੀਆਂ ਦਾ ਪ੍ਰਬੰਧ:

(ਓ) 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

(ਓ) 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

(ਓ) 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

12 ਅੰਕ

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

11*2=22 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. 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.

B.VFPE 112: English Communication Skills I
This course will consist of the following credit structure
Credits for this course for each semester – 4 credits

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 Black Swan, 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

B.VFPE-113: Basics of Food Processing
(CREDITS: 4 Theory)

Time allowed: 3 hrs
Period per week: 4
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

1. Introduction to Food Processing: Definition, Objectives, Scope of Food processing industry.
2. Introduction to different processes employed in food processing such as Milling, Boiling, Par Boiling, Steaming, Braising, Stewing, Roasting, Frying, Grilling, Baking, Microwave cooking, Fermentation, Pickling, Marination

UNIT-II

3. Sensory analysis of foods: Overview of the sensory principles and practices, selection and screening of the sensory panel, types of panel (trained, semi trained).
4. Methodology of sensory evaluation- discriminative tests, difference tests, paired comparison, duo trio, triangle, descriptive tests.

Suggested Readings:

1. Jood and Sudesh, 2002, Food Preservation, Agrotech Publisher Academy, Udaipur.
2. Potter, N.N., 2002, Food Science, CBS Publishers, ND.
3. Sethi and Mohini, 2001, Food Science, CBS Publishers, ND.
4. Srilakshmi, B., 2001, Food Science, New Age International Pvt. Ltd., ND.
5. Mahendru, S.N., 2000, Food Additives, Tata McGraw Hills, ND.
6. Manay, N.S., 2001, Foods: Facts & Principles, Wiley Eastern Ltd., ND.
7. Fellows, P., 2005, Food Processing Technology: Principles & Practices, CRC Press, Woodhead Publishing Ltd., England.

**B.VFPE-114: Bakery Science & Technology
(CREDITS: 4 Theory)**

Time allowed: 3 hrs
Period per week: 4
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

1. Bakery Industry: Current status, Economic importance of Bakery Industry in India. Product types, Nutritional quality and safety of products, standards & regulations.
2. Bread: Ingredients, Define baking processes for breads, ingredients used; methods of dough preparation; steps in bread processing, evaluation of the baked bread, staling of bread.

UNIT-II

3. Biscuits & Cookies: Ingredients & processes, equipments used, product quality characteristics.
4. Cakes, buns, pizza, pie and rusks: Ingredients & processes, equipments used, product quality characteristics.

Suggested Readings:

1. Dubey, S.C. (2007). Basic Baking 5th Ed. Chanakya Mudrak Pvt. Ltd.
2. Raina et.al. (2003). Basic Food Preparation-A complete Manual. 3rd Ed. Orient Longman Pvt. Ltd.
3. Manay, S. & Shadaksharaswami, M. (2004). Foods: Facts and Principles, New Age Publishers.
4. Barndt R. L. (1993). Fat & Calorie – Modified Bakery Products, Springer US.
5. Samuel A. Matz (1999). Bakery Technology and Engineering, PAN-TECH International Incorporated.
6. Faridi Faubion (1997). Dough Rheology and Baked Product Texture, CBS Publications.
7. Samuel A. Matz (1992). Cookies & Cracker Technology, Van Nostrand Reinhold

B.VFPE-115 Basics of Food Safety & Microbiology

(CREDITS: 4 Theory)

Time allowed: 3 hrs

Period per week: 4

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

1. Personal Hygiene & Safety: Introduction to general principle of food hygiene, Necessity of Personal Hygiene, Hygiene in relation to food preparation, safety at work place, protective clothing.
2. Sanitation and cleaning of Plant: Cleaning procedures (Cleaning agents and sanitizers), Location, layout and construction of premises, pest control, water supply, storage and disposal of waste. Introduction to concepts of food quality: HACCP.

UNIT-II

3. Introduction to Food Microbiology: Definition and Scope of food microbiology, types of microorganisms (Microorganisms in atmosphere, soil and water).
4. Microbial Food Spoilage: Spoilage of Bakery products.

Suggested Readings:

1. Jay, J.M, 1996, Modern Food Microbiology, CBS Publishers, New Delhi.
2. Adams, M.R. and Moss, M.O., 2007, Food Microbiology, New Age International Pvt. Ltd.,ND.
3. Pelczar, R. and Chan, 2008, Microbiology, McGraw hill Ed, ND.
4. Frazier, C. 2008, Food Microbiology, Tata McGraw Hill Ed., ND.
5. Roday, S., 1998, Food Hygiene and sanitation, Tata McGraw Hill Ed., ND.
6. Manay, N.S., 2001, Foods : Facts & Principles, Wiley Eastern India Ltd., ND.
7. Srilakshmi, B., 2001, Food Science, New Age International Pvt. Ltd., ND.

B.VFPE-116 Practical Paper pertaining to Bakery Science & Technology**(CREDITS: 5)**

Max. Marks : 100

Pass marks: 35%

Period per week:10

External Assessment:70

Internal Assessment: 30

1. Determination of Gluten content (Wet & Dry gluten %age)
2. Determine quality of wheat flour.
3. Determination of volume of baked gluten
4. Moisture content evaluation for preparation of bakery products
5. Determination of fat percentage of biscuits
6. Preparation of bread
7. Assessment of bread Quality
8. Preparation of buns
9. Preparation of butter cake.
10. Preparation of Biscuit
11. Preparation of cookies and assessment of quality.
12. Determination of ash content of flours used for baking.

Suggested Readings:

1. Dubey, S.C. (2007). Basic Baking 5th Ed. Chanakya Mudrak Pvt. Ltd.
2. Raina et.al. (2003). Basic Food Preparation-A complete Manual. 3rd Ed. Orient Longman Pvt. Ltd.
3. Manay, S. & Shadaksharaswami, M. (2004). Foods: Facts and Principles, New Age Publishers.
4. Barndt R. L. (1993). Fat & Calorie – Modified Bakery Products, Springer US.
5. Samuel A. Matz (1999). Bakery Technology and Engineering, PAN-TECH International Incorporated.
6. Faridi Faubion (1997). Dough Rheology and Baked Product Texture, CBS Publications.
7. Samuel A. Matz (1992). Cookies & Cracker Technology, Van Nostrand Reinhold.

**B.VFPE-117: Practical Paper pertaining to Basics of food safety & microbiology
(CREDITS: 5)**

Max. Marks : 100
Pass marks: 35%
Period per week:10

External Assessment:70
Internal Assessment: 30

1. Laboratory orientation and demonstration of laminar air flow, analytical balance, hot air oven, incubator and autoclave.
2. To clean the work area, glassware's and ensure personal hygiene by using gloves, mask, ear plugs, goggles, shoes etc.
3. Determine the critical control points for production line in baking industry.
4. To demonstrate the use of safety equipment such as fire extinguisher, first aid kit and eye wash station, cleaning agents and sanitizers following CIP procedure.
5. Demonstration of compound microscope
6. Cleaning and sterilization of glassware
7. Preparation, sterilization of nutrient broth and media.
8. To perform streak plate technique.
9. To perform spread plate techniques.
10. To perform pour plate technique.
11. To study the spoilage of bread and other bakery product.
12. To study the microorganisms (psychrophiles) present under refrigeration conditions.

Suggested Readings:

1. Jay, J.M, 1996, Modern Food Microbiology, CBS Publishers, New Delhi.
2. Adams, M.R. and Moss, M.O., 2007, Food Microbiology, New Age International Pvt. Ltd., ND.
3. Pelczar, R. and Chan, 2008, Microbiology, McGraw hill Ed, ND.
4. Frazier, C. 2008, Food Microbiology, Tata McGraw Hill Ed., ND.
5. Roday, S., 1998, Food Hygiene and sanitation, Tata McGraw Hill Ed., ND.
6. Manay, N.S., 2001, Foods : Facts & Principles, Wiley Eastern India Ltd., ND.
7. Srilakshmi, B., 2001, Food Science, New Age International Pvt. Ltd., ND.

B.VFPE-211 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 ਸਾਰੇ ਕੋਰਸਾਂ ਦੇ ਭਾਗ ਪਹਿਲਾ ਲਈ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਵਿਸ਼ੇ ਦਾ ਸਿਲੇਬਸ

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 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 ਓ, ਅ ਅਤੇ ਏ ਵਿੱਚ ਵੰਡਿਆ ਜਾਵੇਗਾ।

3. ਭਾਗ ਓ ਵਿੱਚੋਂ

(1) ਕਿਸੇ ਇਕ ਨਿਬੰਧ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ/ ਨਿਬੰਧ ਕਲਾ ਜਾਂ ਲੇਖਕ ਦਾ ਯੋਗਦਾਨ। (ਤਿੰਨ ਵਿੱਚੋਂ ਇਕ) 12 ਅੰਕ

(2) ਨਿਬੰਧਾਂ ਵਿਚਲੇ ਵਿਚਾਰਾਂ ਸਬੰਧੀ ਛੋਟੇ ਪ੍ਰਸ਼ਨ (ਪੰਜ ਵਿੱਚੋਂ ਤਿੰਨ) 3x4=12 ਅੰਕ

4. ਭਾਗ ਅ ਵਿੱਚੋਂ ਵਿਆਕਰਨ ਦੇ ਦੋਨਾਂ ਭਾਗਾਂ -ਅ.1, ਅ.2 ਵਿੱਚੋਂ 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।

(ਪੰਚੀ ਵਿੱਚੋਂ ਕੋਈ ਵੀਹ) 10 ਅੰਕ

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

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।

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 ਸ਼੍ਰੇਣੀ ਤੇ ਬਣਤਰ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 1996.
6. ਖੋਜ ਪੜ੍ਹਕਾ (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.

B.VFPE-211 (A) 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 ਸਾਰੇ ਕੋਰਸਾਂ ਦੇ ਭਾਗ ਪਹਿਲਾ ਲਈ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਵਿਸ਼ੇ ਦਾ ਸਿਲੇਬਸ

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, ਪਛਾਣ 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

- 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।
- 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.

B.VFPE 212: ENGLISH COMMUNICATION SKILLS II

This course will consist of the following credit structure
Credits for this course for each semester – 4 credits

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: *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. Whose 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

**B.VFPE: 213 Principles of Food Preservation
(CREDITS: 4 Theory)**

Time allowed: 3 hrs
Period per week: 4
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

- 1 Introduction: Principles of Food preservation. Scope and benefit of food preservation. Causes of food spoilage.
2. Preservation by Heat: Heat resistance of microorganisms and their spores. Heat treatments – boiling, steam under pressure, pasteurization.

UNIT-II

3. Preservation by Low Temperature: Low temperature storage, refrigeration and freezing. Food preservation by Chemical: A brief account of Class I and Class II Preservatives, Introduction to biopreservatives.
4. Food Safety Management Tools: Good Manufacturing Practices, HACCP, FSSAI, ISO.

Suggested Readings:

1. Sukumar, De, 1991, Outlines of Dairy Technology, Oxford Univ. Press, ND
2. Walstra, P., 2005, Dairy Technology, Oxford Univ. Press, ND. Milk & Milk Products, Tata McGraw Hill Publishers, USA.
3. Warner J.N., 1976, Principles of Dairy Processing ,Wiley Science Publishers, USA.
4. Robinson, R.K., 1996, Modern Dairy Technology, Vol 1 & 2, Elsevier Applied Science Pub.
5. Herrington, B.L., 1948, Milk & Milk Processing, McGraw-Hill Book Company.
6. Lampert, .L.H, 1970, Modern Dairy Products, Chemical Publishing Company

**B.VFPE-214 Basics of Food Packaging
(CREDITS: 4 Theory)**

Time allowed: 3 hrs
Period per week: 4
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

1. Packaging - Introduction , Food Protection, Functions of package, packaging & labeling of Foods, Materials used for packing (a Brief account)
2. Aluminum Foils and laminations.- Food packages bags, pouches, carton boxes, metal Cans and Plastic Containers, glass containers.

UNIT-II

3. Special packaging methods- Edible packaging, vacuum and gas packaging, shrink package, Inert gas packaging,Active Packaging.
4. Flexible packaging materials: polyethylene, cellophane, PVC, packaging of baked food products.

Suggested Readings:

1. Sachrow & Griffin, "Food packaging"
2. Heiss R., "Principles of food packaging"
3. Paine E.A, "Fundamentals of packaging".
4. Day P.T., "Packaging of food beverages"
- 5.. Brody AL, "Flexible packaging of Foods"
6. Food Packaging: Principles and Practice. Gordon L. Robertson. Marcel Dekker. 1993
7. Food Packaging Materials – M. T. Crosby.
8. Food Packaging Materials – M. Mahadevish R.V. Gowramma.
9. Food Packaging – Stanley Sachrow

**B.VFPE-215: Food Packaging Techniques
(CREDITS: 4 Theory)**

Time allowed: 3 hrs
Period per week: 4
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

1. Units and measurements: Brief introduction to dimensions, fundamental units and derived units. Systems of measurement-fps, cgs, mks, SI units.
2. Food plant design: general consideration in designing the plant. Mechanical handling-conveying and elevation. Equipment in food packaging: vacuum packaging machine, Shrink packaging, Labelers like pressure sensitive labeling systems, wrapping machines

UNIT-II

3. Materials and containers used in food packaging, engineering aspects of packaging. Principles of packaging design.
4. Package development process, structural requirements, manufacturing and distribution plans.

Suggested Readings:

1. Fundamentals of food engineering by Radha Charan Verma, Sanjay Kumar Jain- Himanshu Publicatios.
2. Fundamentals of food processing engineering by Romeo T. Toledo, CBS Publications.
3. Introduction to food engineering by R Paul Singh and Dennis R Heldman-Academic press London, UK.
4. Food Packaging: Principles and Practice. Gordon L. Robertson. Marcel Dekker. 1993
5. Adams, M.R. and Moss, M.O., 2007, Food Microbiology, New Age International Pvt. Ltd., ND.
6. Pelczar, R. and Chan, 2008, Microbiology, McGraw hill Ed, ND.
7. Frazier, C. 2008, Food Microbiology, Tata McGraw Hill Ed., ND.
8. Roday, S., 1998, Food Hygiene and sanitation, Tata McGraw Hill Ed., ND

B.VFPE-216 Practical paper pertaining to basics of food packaging**(CREDITS: 5)**

Max. Marks : 100

Pass marks: 35%

Period per week:10

External Assessment:70

Internal Assessment: 30

1. Shelf life studies of packaging foods.
2. To determine grease resistance of packaging materials.
3. Gas/Vacuum packaging of foods and shelf life studies
4. To find out the porosity of tin plate.
5. Determination of Water Vapor Transmission rate of Packaging Material.
6. To find out the uniformity and amount of wax on wax paper.
7. Edible packaging of Food Samples.
8. Puncture resistance of corrugated boxes.
9. Testing of physical properties of food packaging material
10. Testing of Mechanical properties of Food
11. To study labeling of various food packages.
12. Visit to various industries, dealing with food packaging materials.

Suggested Readings:

1. Sachrow & Griffin, "Food packaging"
2. Heiss R., "Principles of food packaging"
3. Paine E.A, "Fundamentals of packaging".
4. Day P.T., "Packaging of food beverages"
- 5.. Brody AL, "Flexible packaging of Foods"
6. Food Packaging: Principles and Practice. Gordon L. Robertson. Marcel Dekker. 1993
7. Food Packaging Materials – M. T. Crosby.
8. Food Packaging Materials – M. Mahadevish R.V. Gowramma.
9. Food Packaging – Stanley Sacharo

B.VFPE-217 Practical paper pertaining to food packaging techniques

(CREDITS: 5)

Max. Marks : 100

Pass marks: 35%

Period per week:10

External Assessment:70

Internal Assessment: 30

1. To study SI units of various physical quantities.
2. To convert 10 joules into ergs using dimensional analysis.
3. To convert 10 newton into dynes using dimensional analysis.
4. Study of various materials and containers used in food packaging.
5. Study of various equipments involved in food packaging plant.
6. Study of principles of packaging design.
7. Study of general considerations in designing a Plant.
8. Study of Food Plant Design Layout
9. To study the safety practices in production area.
10. Determine the critical control points for packaging production line for food industry
11. A brief about ISO 22000 certified Indian companies.
12. To study the essential elements of GMP.

Suggested Readings:

1. Fundamentals of food engineering by Radha Charan Verma, Sanjay Kumar Jain- Himanshu Publicatios.
2. Fundamentals of food processing engineering by Romeo T. Toledo, CBS Publications.
3. Introduction to food engineering by R Paul Singh and Dennis R Heldman-Academic press London, UK.
4. Food Packaging: Principles and Practice. Gordon L. Robertson. Marcel Dekker. 1993
5. Adams, M.R. and Moss, M.O., 2007, Food Microbiology, New Age International Pvt. Ltd., ND.
6. Pelczar, R. and Chan, 2008, Microbiology, McGraw hill Ed, ND.
7. Frazier, C. 2008, Food Microbiology, Tata McGraw Hill Ed., ND.
8. Roday, S., 1998, Food Hygiene and sanitation, Tata McGraw Hill Ed., ND.