

# **FACULTY OF ECONOMICS AND BUSINESS**

## **SYLLABUS**

### **FOR**

**(SEMESTER: I–IV)**

**B.Sc. (HONS. SCHOOL) ECONOMICS**  
**(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**(SEMESTER: V–VI)**

**B.Sc. (HONS. SCHOOL) ECONOMICS**  
**(UNDER CREDIT BASED CONTINUOUS EVALUATION GRADING SYSTEM)**

**Examinations: 2019-20**



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# **GURUNANKDEVUNIVERSITY**

## **AMRITSAR**

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- (ii) **Subject to change in the syllabi at any time.**  
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**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER SYSTEM)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**SCHEME OF COURSE**

**SEMESTER-I**

Code	Paper	Credits	Mid Sem. Marks	Pra. Marks	Theory	End Se. Marks	Total Marks
ENL101	Communicative English-I	2	20	-		80	100
PBL-121/ PBL-122/ HSL 101	Punjabi (Compulsory) -II OR *ਮੁਢਲੀ ਪੰਜਾਬੀ OR ** Punjab History & Culture (Culture (1450-1716) (Special Paper in lieu of Punjabi Compulsory) (For those students who are not domicile of Punjab)	2	20	-		80	100
EOL102	Microeconomics-I	4	20	-		80	100
EOL103	Macroeconomics-I	4	20	-		80	100
EOL104	Mathematics for Economists-I	4	20	-		80	100
EOL105	Statistics-I	4	20	-		80	100
EOL106	Computer Fundamentals	4	20	20		60	100
*SOA 101	***Drug Abuse: Problem, Management and Prevention (Compulsory ID Course)	3	-	-		-	-

**SEMESTER-II**

Code	Paper	Credits	Mid Sem. Marks	Practical Marks	End Sem. Marks	Total Marks
ENL151	Communicative English-II	2	20	-	80	100
PBL-131 / PBL-132/ HSL 102	Punjabi (Compulsory) -II OR *ਮੁਢਲੀ ਪੰਜਾਬੀ OR **Punjab History & Culture (1717-1947) (Special Paper in lieu of Punjabi Compulsory) (For those students who are not domicile of Punjab)	2	20	-	80	100
EOL108	Microeconomics-II	4	20	-	80	100
EOL109	Macroeconomics-II	4	20	-	80	100
EOL110	Mathematics for Economists-II	4	20	-	80	100
EOL111	Statistics-II	4	20	-	80	100
EOL112	Operating Systems	4	20	20	60	100
*SOA 101	***Drug Abuse: Problem, Management and Prevention (Compulsory ID Course)	3		-		

**Note.**

1. \*Special Paper in lieu of Punjabi Compulsory.
2. \*\*For those students who are not domicile of Punjab
3. \*\*\*Student can opt this Paper whether in 1<sup>st</sup> or 2<sup>nd</sup> Semester. (Compulsory ID Course)
4. PSL -053 ID Course Human Rights & Constitutional Duties (Compulsory ID Course)  
Students can opt. this paper in any semester except the 1<sup>st</sup> Semester. This ID Course is one of the total ID Course of this course.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER SYSTEM)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**PAPERS OF THIS COURSE.**

**SEMESTER–III**

<b>Code</b>	<b>Paper</b>	<b>Credits</b>	<b>Mid Sem. Marks</b>	<b>End Sem. Marks</b>	<b>Total Marks</b>
EOL201	Microeconomics–III	4	20	80	100
EOL202	Macroeconomics–III	4	20	80	100
EOL203	Mathematics for Economists–III	4	20	80	100
EOL204	Agricultural Economics	4	20	80	100
EOL205	Introduction to GUI Packages	4	20	80	100
ESL220	Environmental Studies (Compulsory ID Course)	4	20	80	100

**SEMESTER–IV**

<b>Code</b>	<b>Paper</b>	<b>Credits</b>	<b>Mid Sem. Marks</b>	<b>Pra.</b>	<b>End Sem. Marks</b>	<b>Total Marks</b>
EOL209	Statistics–III	4	20	-	80	100
EOL210	Money and Banking	4	20	-	80	100
EOL211	Industrial Economics	4	20	-	80	100
EOL212	Labour Economics	4	20	-	80	100
EOL213	Relational Data Base and Management System	4	20	20	60	100

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER SYSTEM)  
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**SEMESTER-V**

<b>Code</b>	<b>Paper</b>	<b>Credits</b>
EOL301	Public Finance	4
EOL302	Indian Economy	4
EOL303	Economic History of India	4
EOL304	International Economics	4
EOL305	Econometrics	4
EOL306	SAD and Structure Programme	4

**SEMESTER-VI**

<b>Code</b>	<b>Paper</b>	<b>Credits</b>
EOL307	Regional Economics with Special Reference to Punjab Economy	4
EOL308	Entrepreneurial Development	4
EOL309	Development Economics	4
EOL310	Comparative Economic Systems	4
EOL311	Accounting and Financial Management	4
EOL312	Computer Networks and Internet Applications	4

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-I)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**COMMUNICATIVE ENGLISH-I**

**ENL-101**

**Credits: 02 (L= 2, T=0, U=0)**

**Total Marks: 100**

**Mid Semester Marks:20**

**End Semester Marks:80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Objective:** To introduce students to the skills and strategies of reading and writing by identifying organizational patterns, spotting classification systems and understanding associations between ideas. This course will prepare students to read a variety of texts and also to communicate more effectively through writing. The course will also pay special attention to vocabulary building.

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**Prescribed Text books:**

- *The Written Word* by Vandana R. Singh, Oxford University Press, NewDelhi.
- *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, SecondEdition.

**SECTION-A**

“Word List”, “Correct Usage of Commonly used words and Phrases” from the chapter “Vocabulary” given in *The Written Word* by Vandana R. Singh.

**SECTION-B**

Letter- writing as prescribed in *The Written Word* by Vandana R. Singh.

Report writing as prescribed in *The Written Word* by Vandana R. Singh.

**SECTION-C**

Section 1 from *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, SecondEdition.

**SECTION-D**

Section 2 from *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, SecondEdition.

**B.S.C. (HONOURS SCHOOL) ECONOMICS (SEMESTER-I)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**PBL 121 :ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ- I (Credit Based)**

**Credit: 2-0-0**

**Total Marks: 100**

**Mid Semester Marks:20**

**End Semester Marks:80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**ਸੈਕਸ਼ਨ-ਏ**

- I. ਦੋ ਰੰਗ (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ)  
ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਵੀ :  
(ੳ) ਭਾਈ ਵੀਰ ਸਿੰਘ  
(ਅ) ਧਨੀ ਰਾਮ ਚਾੜ੍ਹਕ  
(ੲ) ਪ੍ਰੋ. ਪੂਰਨ ਸਿੰਘ  
(ਕਵੀ ਦਾ ਜੀਵਨ, ਕਵਿਤਾ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਾਵਿ-ਕਲਾ)
- II. ਗੁਰਮੁਖੀ ਔਰਥੋਗਰਾਫੀ ਦੀ ਜੁਗਤ (ਪੈਂਤੀ, ਮੁਹਾਰਨੀ, ਬਿੰਦੀ, ਟਿੱਪੀ ਤੇ ਅੱਧਕ); ਵਿਸਰਾਮ ਚਿੰਨ੍ਹ, ਸ਼ਬਦ ਜੋੜ (ਸੁਧ-ਅਸੁਧ)

**ਸੈਕਸ਼ਨ-ਬੀ**

- I. ਦੋ ਰੰਗ (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ)  
ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਵੀ :  
(ੳ) ਫਿਰੋਜ਼ਦੀਨ ਸ਼ਰਫ  
(ਅ) ਪ੍ਰੋ. ਮੋਹਨ ਸਿੰਘ  
(ਕਵੀ ਦਾ ਜੀਵਨ, ਕਵਿਤਾ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਾਵਿ-ਕਲਾ)
- II. ਲੇਖ ਰਚਨਾ (ਜੀਵਨੀ-ਪਰਕ, ਸਮਾਜਕ ਅਤੇ ਚਲੰਤ ਵਿਸ਼ਿਆਂ ਉੱਤੇ) : 10 ਲੇਖ ਲਿਖਵਾਉਣੇ  
(ਕਲਾਸ ਵਿਚ ਅਤੇ ਘਰ ਲਈ ਅਭਿਆਸ)

**ਸੈਕਸ਼ਨ-ਸੀ**

- I. ਦੋ ਰੰਗ (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ)  
ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਵੀ :  
(ੳ) ਨੰਦ ਲਾਲ ਨੂਰਪੁਰੀ  
(ਅ) ਅਮ੍ਰਿਤਾ ਪ੍ਰੀਤਮ  
(ੲ) ਡਾ. ਹਰਿਭਜਨ ਸਿੰਘ  
(ਕਵੀ ਦਾ ਜੀਵਨ, ਕਵਿਤਾ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਾਵਿ-ਕਲਾ)
- II. ਸੁੱਧ, ਅਸੁੱਧ : ਦਿੱਤੇ ਪੈਰ੍ਹੇ ਵਿੱਚੋਂ ਅਸੁੱਧ ਸ਼ਬਦਾਂ ਨੂੰ ਸੁੱਧ ਕਰਨਾ  
(15 ਪੈਰ੍ਹਿਆਂ ਦੇ ਸੁੱਧ ਅਸੁੱਧ ਅਭਿਆਸ ਕਰਵਾਉਣੇ)

**ਸੈਕਸ਼ਨ-ਡੀ**

- I. ਦੋ ਰੰਗ (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ)  
ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਵੀ :  
(ੳ) ਸ਼ਿਵ ਕੁਮਾਰ ਬਟਾਲਵੀ  
(ਅ) ਸੁਰਜੀਤ ਪਾਤਰ  
(ਕਵੀ ਦਾ ਜੀਵਨ, ਕਵਿਤਾ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਾਵਿ-ਕਲਾ)
- II. ਅਖਬਾਰੀ ਇਸ਼ਤਿਹਾਰ : ਨਿੱਜੀ, ਦਫ਼ਤਰੀ ਤੇ ਸਮਾਜਕ ਗਤੀਵਿਧੀਆਂ ਨਾਲ ਸੰਬੰਧਤ

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-I)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ**

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2. ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚ ਕਰ ਸਕਦਾ ਹੈ।

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-I)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**PBL-122: ਮੁੱਢਲੀ ਪੰਜਾਬੀ  
(In lieu of Punjabi Compulsory)**

**Credits: 2-0-0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**ਪਾਠ-ਕ੍ਰਮ**

**ਸੈਕਸ਼ਨ-ਏ**

ਪੈਂਤੀ ਅੱਖਰੀ, ਅੱਖਰ ਕ੍ਰਮ,  
ਮਾਤ੍ਰਾਵਾਂ (ਮੁੱਢਲੀ ਜਾਣ-ਪਛਾਣ)  
ਲਗਾਖਰ (ਬਿੰਦੀ, ਟਿੱਪੀ, ਅੱਧਕ) : ਪਛਾਣ ਤੇ ਵਰਤੋਂ

**ਸੈਕਸ਼ਨ-ਬੀ**

ਪੰਜਾਬੀ ਸ਼ਬਦ ਬਣਤਰ : ਮੁੱਢਲੀ ਜਾਣ-ਪਛਾਣ  
ਸਾਧਾਰਨ ਸ਼ਬਦ, ਸੰਯੁਕਤ ਸ਼ਬਦ, ਮਿਸ਼ਰਤ ਸ਼ਬਦ  
ਮੂਲ ਸ਼ਬਦ, ਅਗੇਤਰ ਅਤੇ ਪਿਛੇਤਰ

**ਸੈਕਸ਼ਨ-ਸੀ**

ਸ਼ੁੱਧ ਅਸ਼ੁੱਧ : ਦਿੱਤੇ ਪੈਰੇ ਵਿੱਚੋਂ ਅਸ਼ੁੱਧ ਸ਼ਬਦ ਨੂੰ ਸ਼ੁੱਧ ਕਰਨਾ।  
ਸਮਾਨਾਰਥਕ ਤੇ ਵਿਰੋਧਾਰਥਕ ਸ਼ਬਦ

**ਸੈਕਸ਼ਨ-ਡੀ**

ਹਫਤੇ ਦੇ ਸੱਤ ਦਿਨਾਂ ਦੇ ਨਾਂ, ਬਾਰਾਂ ਮਹੀਨਿਆਂ ਦੇ ਨਾਂ, ਰੁੱਤਾਂ ਦੇ ਨਾਮ, ਇਕ ਤੋਂ ਸੌ ਤੱਕ ਗਿਣਤੀ ਸ਼ਬਦਾਂ ਵਿੱਚ।

**ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ**

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2. ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਇਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ।  
ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚ ਕਰ ਸਕਦਾ ਹੈ।



**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-I)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**HSL:101**

**Punjab History & Culture (1450-1716)  
(Special paper in lieu of Punjabi Compulsory)  
(For those students who are not domicile of Punjab)**

**Credits: 2-0-0**

**Total Marks: 100**

**Mid Semester Marks:20**

**End Semester Marks:80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION-A**

1. Land and the People.
2. Bhakti Movement

**SECTION-B**

3. Life and Teaching of Guru Nanak Dev.
4. Contribution of Guru Angad Dev, Guru Arjun Dev, Guru Amar Das and Guru Ram Das.

**SECTION-C**

5. Guru Hargobind.
6. Martyrdom of Guru Teg Bahadur

**SECTION-D**

7. Guru Gobind Singh and the Khalsa.
8. Banda Singh Bahadur: Conquests and Execution.

**Suggested Reading**

1. Kirpal Singh(ed.), *History and Culture of the Punjab, Part-ii, Punjabi University, Patiala*. 1990.
2. Fauja Singh (ed.), *History of Punjab, Vol, III Punjabi University, Patiala, 1987*.
3. J.S. Grewal, *The Sikhs of the Punjab, Cup, Cambridge, 1991*.
4. Khushwant Singh, *A History of the Sikhs, Vol. I, OUP, New Delhi, 1990*

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-I)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

EOL102 : MICROECONOMICS– I

**Total Marks: 100**

**Mid Semester Marks:20**

**End Semester Marks:80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

Basic problems of an economy. Demand and Supply functions – an introductory view of price formation. Role of time element in price formation.

Price, income and cross elasticities of demand; Elasticity of substitution and the relationship between price elasticity, income elasticity and elasticity of substitution, elasticity of supply.

**SECTION B**

Theories of demand; The classical utility approach, indifference curves approach, the revealed preference approach, consumer's surplus.

**SECTION C**

Theory of production: Production function, isoquants, returns to a factor and returns to scale and their compatibility.

Elasticity of substitution; economies of scale.

**SECTION D**

Cobb–Douglas production function; production function of a multi product firm.

Theory of Costs; Short and long period costs, traditional and modern theories of costs, derivation of cost function from production function.

Revenue analysis: Revenue curves and their mutual relationship.

**Suggested Readings:**

1. Koutsoyiannis, A. : Modern Microeconomics.
2. Lipsey, G. : An Introduction to Positive Economics.
3. Stonier & Hague : A text book of Economic Theory.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-I)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

EOL103 : MACROECONOMICS– I

**Total Marks: 100**

**Mid Semester Marks:20**

**End Semester Marks:80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

Basic Concepts: Micro Vs. Macroeconomics

Variables: Real and nominal; Induced and autonomous; Lagged and unlagged; ex-ante and ex-post; Model and Equations; Equality & identity; stock and flow; Static, Equilibrium and disequilibrium.

National Income: Definition: Productive Vs. Non-productive intermediate and final output.

**SECTION B**

Concepts of national income.

Measurement of National Income: Income, Output and Expenditure, Circular flow of income in two, three and four sectors economics.

National Accounts: Meaning, objectives and importance. Different methods of preparing national income accounts.

**SECTION C**

National income accounts in a four sector economy (double entry).

GNP and Welfare; Inter temporal and international comparisons of National income.

Determination of Income and Employment.

**SECTION D**

Classical View: Labour Market; Product Market and Money Market.

Say's Law of Markets (Barter and a monetized economy).

**Suggested Readings:**

1. Backerman, W An Introduction to National Income Analysis, E.L.B.S., London, 1976. (Chapters 1-5).
2. Studenski, P.A The Income of Nations, Part – 2, Theory and Methodology: Ch. 11, 16, Sections.
3. Rao, V.K.R.V. India's National Income, 1950 – 80, An Analysis of Economic Growth and change; Sage Publications, New Delhi, 1983, Chapters I and II.
4. C.S.O. National Accounts Statistics, Sources and Methods, April 1980.
5. Shapiro, E. Macroeconomic Analysis, Harcourt, New York (Second Edition) (Chapters, 1–6, 17).
6. Peterson, W.C. Income, Employment and Economic Growth Norton, New York, 1978.
7. Ackley, G. Macroeconomic Theory, Macmillan, New York, 1969 (Chapters 1, 2, 6)

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-I)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL104 : MATHEMATICS FOR ECONOMISTS– I**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

Elements of Algebra; Simultaneous linear and quadratic equations and their economic applications, Sequence and series – A.P., G.P., H.P. and applications involving their use.

**SECTION B**

Permutations and combinations – Meaning, difference and practical problems involving permutations and combinations, Binomial theorem : Positive integral index, when the power is not a positive integer, binomial theorem for any index.

**SECTION C**

Trigonometry: Trigonometric ratios, t-ratios of  $30^\circ$ ,  $45^\circ$ ,  $60^\circ$  and  $90^\circ$  t-ratio of allied angles, addition and subtraction formula. Functions, Limits and Continuity.

**SECTION D**

Differentiation: Method for finding derivative from first principle, general theorems on differentiation, functions of functions rules, parametric equations, logarithmic and exponential functions, successive differentiations. Economic applications of simple differentiation.

**Suggested Readings:**

1. Monga, G.S. : Mathematics and Statistics for Economists
2. Allen, R.G.D. : Mathematical Analysis for Economics.
3. Yamane, Taro : Mathematics for Economists.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-I)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

EOL105 : STATISTICS – I

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

Definition: Scope and limitation of statistics. Tabulation and classification of data: discrete and continuous one – way and two – way frequency distribution.

Diagrammatic and graphic presentation of data.

**SECTION B**

Measures of Central Tendency; definition, measure, properties merits and demerits.

Dispersion: Meaning, importance, absolute and relative measures of dispersion.  
Skewness, Moments and Kurtosis.

**SECTION C**

Correlation: meaning, measures, Karl Pearson's product moment and spearman's rank correlation.

Regression: Meaning, simple regression, least squares principle, properties of correlation and regression coefficients.

**SECTION D**

Index Numbers: Meaning, scope and limitations, types, formulae, tests for the consistency of index numbers.

Interpolation and Extraction, meaning, importance uses, assumption, methods of interpolation: graphic and algebraic merits and demerits.

Suggested Readings:

Gupta, S.C. : Fundamentals of Statistics, Himalya Publishing House, 1981, Delhi.

Gupta, S.P. : Statistical Methods, Sultan Chand and Sons, 1978, Delhi.

Gupta C.B. : An Introduction to Statistical Methods, Vikas Publishing House, Delhi, 1957.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-I)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL106 : COMPUTER FUNDAMENTALS**

Credits: 3-0-2

**Total Marks: 100**

**Mid Semester Marks: 20**

**Practical Marks: 20**

**End Semester Marks: 60**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 60% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

**Elements of a Computer System.**

What is a Computer?

Evolution of computers, their classification and limitations.

Uses of Computers in modern society (e.g. Weather Forecasting, Census, Oil Exploration, Speech Recognition, Banking, Publishing, Accounting, Research etc.)

Characteristics of Desktop.

Characteristics of Portables / Laptops.

Introduction to Hardware, Software: System S/W, Operating System, Translators, Utilities and Service Programme, Data base, DBMS.

Application Software (user and standard packages.)

Introduction to Programming Languages C, Features, Data types and operators in C.

**Input Output Devices.**

**Input Devices and Functions.**

Keyboard and teletypewriter terminals.

Joystick

Mouse

Track Ball and Touch Panels.

Magnetic Tapes and Cassettes.

Magnetic Disks.

Floppy and Winchester Disks

Optical Mark Reader (OMR)

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(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

Optical Character Reader (OCR)  
Magnetic Ink Character Reader (MICR)

**SECTION B**

**Output Devices and Functions**

Visual Display Units (Monitor), CRT, LCD, LED and Plasma.  
Plotters  
Printers

**H/W Organisation of Desktop Computer.**

Introduction to Hardware components.  
CPU (Control Unit, ALU).

**3.4 Memory**

- a) RAM – Dynamic RAM, Static RAM.
- b) ROM – PROM, EPROM, EEPROM.
- c) Cache, Virtual, Extended and Expanded Memories.

**SECTION C**

**3.5 Secondary Memory (Storage Devices) with Details of FD, Cluster, FAT, Tracks.**

Floppy Disk  
Hard Disk  
DAT  
CD, DVD, Memory Card, Pen Drive.

**Standardization of PC – Hardware Devices.**

- 4.1 Concept of Motherboard, Microprocessor, Bus, Adaptor Cards.
- 4.2 Power Supply and Distribution.
- 4.3 Physical and Logical Security of Data at PC Level.

**SECTION D**

- 4.4 Modems and its types.
- 5. Data Representation.
- 6. Introduction to Number Systems and Character Codes.
- 7. Flow Charts.
- 8. Introduction to Program Development Life Cycle.

**Recommended Texts:**

- 1. Introduction to Computer Science by Francis Scheid.
- 2. PC Complete by Sybex
- 3. Computer Fundamental by S. Jain
- 4. Introduction to Computer: Fundamentals of Computer Science by N. Subramaniam.
- 5. Understanding Computers by Dinesh Kumar.
- 6. Computer Fundamentals by P.K. Sinha and Preeti Sinha.
- 7. Windows based Computer System by Dr. Gurvinder Singh and Rachhpal Singh.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-I)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**DRUG ABUSE: PROBLEM, MANAGEMENT AND PREVENTION  
(Student can opt this Paper in 1<sup>st</sup> or 2<sup>nd</sup> Semester)**

**SOA : 101 - PROBLEM OF DRUG ABUSE**

**Time: 3 Hours**

**Credit 3-0-0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION – A**

**Meaning of Drug Abuse:**

- 1) Meaning, Nature and Extent of Drug Abuse in India and Punjab.
- 2) Consequences of Drug Abuse for:
 

Individual	:	Education, Employment, Income.
Family	:	Violence.
Society	:	Crime.
Nation	:	Law and Order problem.

**SECTION – B**

**Management of Drug Abuse:**

- (i) Medical Management: Medication for treatment and to reduce withdrawal effects.
- (ii) Psychiatric Management: Counselling, Behavioural and Cognitive therapy.
- (iii) Social Management: Family, Group therapy and Environmental Intervention.

**SECTION – C**

**Prevention of Drug abuse:**

- (i) Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.
- (ii) School: Counselling, Teacher as role-model. Parent-teacher-Health Professional Coordination, Random testing on students.

**SECTION – D**

**Controlling Drug Abuse:**

- (i) Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs, Publicity and media, Campaigns against drug abuse, Educational and awareness program
- (ii) Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.



**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-I)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**References:**

1. Ahuja, Ram (2003), *Social Problems in India*, Rawat Publication, Jaipur.
2. Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment, Government of India, 2004.
3. Inciardi, J.A. 1981. *The Drug Crime Connection*. Beverly Hills: Sage Publications.
4. Kapoor. T. (1985) *Drug epidemic among Indian Youth*, New Delhi: Mittal Pub.
5. Kessel, Neil and Henry Walton. 1982, *Alcoholism*. Harmond Worth: Penguin Books.
6. Modi, Ishwar and Modi, Shalini (1997) *Drugs: Addiction and Prevention*, Jaipur: Rawat Publication.
7. National Household Survey of Alcohol and Drug abuse. (2003) New Delhi, Clinical Epidemiological Unit, All India Institute of Medical Sciences, 2004.
8. Ross Coomber and Others. 2013, *Key Concept in Drugs and Society*. New Delhi: Sage Publications.
9. Sain, Bhim 1991, *Drug Addiction Alcoholism, Smoking obscenity* New Delhi: Mittal Publications.
10. Sandhu, Ranvinder Singh, 2009, *Drug Addiction in Punjab: A Sociological Study*. Amritsar: Guru Nanak Dev University.
11. Singh, Chandra Paul 2000. *Alcohol and Dependence among Industrial Workers*: Delhi: Shipra.
12. Sussman, S and Ames, S.L. (2008). *Drug Abuse: Concepts, Prevention and Cessation*, Cambridge University Press.
13. Verma, P.S. 2017, “*Punjab’s Drug Problem: Contours and Characteristics*”, Economic and Political Weekly, Vol. LII, No. 3, P.P. 40-43.
14. World Drug Report 2016, United Nations office of Drug and Crime.
15. World Drug Report 2017, United Nations office of Drug and Crime.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

ENL-151

**COMMUNICATIVE ENGLISH-II**

**Credits: 02 (L= 2, T=0, U=0)**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Objective:** To introduce students to the skills and strategies of reading and writing by identifying organizational patterns, spotting classification systems and understanding associations between ideas. This course will prepare students to read a variety of texts and also to communicate more effectively through writing. The course will also pay special attention to vocabulary building.

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**Prescribed Text books:**

- *The Written Word* by Vandana R. Singh, Oxford University Press, New Delhi.
- *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, Second Edition.

**SECTION-A**

Practical question on Note Making, Summarizing and Abstracting as given in *The Written Word* by Vandana R. Singh

**SECTION-B**

Practical question on Paragraph writing as prescribed in *The Written Word* by Vandana R. Singh

**SECTION-C**

Theoretical questions based on ABC of Good Notes as prescribed in *The Written Word* by Vandana R. Singh.

Section C from *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, Second Edition.

**SECTION-D**

Practical question on Essay writing from *The Written Word* by Vandana R. Singh

Section 4 from *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, Second Edition.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**PBL 131 : ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ - II (Credit Based)**

**Credit : 2-0-0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**ਸੈਕਸ਼ਨ-ਦੇ**

- I. **ਦੋ ਰੰਗ** (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ)  
ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਹਾਣੀਕਾਰ :  
(ੳ) ਨਾਨਕ ਸਿੰਘ : **ਭੂਆ**  
(ਅ) ਗੁਰਮੁਖ ਸਿੰਘ ਮੁਸਾਫਿਰ : **ਬਾਗੀ ਦੀ ਧੀ**  
(ੲ) ਸੰਤ ਸਿੰਘ ਸੇਖੋਂ : **ਪੇਸ਼ੀ ਦੇ ਨਿਆਣੇ**  
(ਕਹਾਣੀਕਾਰ ਦਾ ਜੀਵਨ, ਕਹਾਣੀ ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਹਾਣੀ ਕਲਾ)
- II. ਪੰਜਾਬੀ ਸ਼ਬਦ ਬਣਤਰ : ਧਾਤੂ/ਮੂਲ, ਵਧੇਤਰ (ਅਗੇਤਰ, ਪਿਛੇਤਰ, ਵਿਉਂਤਪਤ ਅਤੇ ਰੁਪਾਂਤਰੀ), ਸਮਾਸ।

**ਸੈਕਸ਼ਨ-ਬੀ**

- I. **ਦੋ ਰੰਗ** (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ)  
ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਹਾਣੀਕਾਰ :  
(ੳ) ਸੁਜਾਨ ਸਿੰਘ : **ਬਾਗਾਂ ਦਾ ਰਾਖਾ**  
(ਅ) ਕਰਤਾਰ ਸਿੰਘ ਦੁੱਗਲ : **ਤੈਂ ਕੀ ਦਰਦ ਨਾ ਆਇਆ**  
(ਕਹਾਣੀਕਾਰ ਦਾ ਜੀਵਨ, ਕਹਾਣੀ ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਹਾਣੀ ਕਲਾ)
- II. ਪੈਰ੍ਹਾ ਰਚਨਾ : ਕਲਾਸ ਵਿੱਚ 10 ਵਿਸ਼ਿਆਂ (ਸਭਿਆਚਾਰ, ਧਾਰਮਕ ਅਤੇ ਰਾਜਨੀਤਕ) 'ਤੇ ਪੈਰ੍ਹਾ ਰਚਨਾ ਦੇ ਅਭਿਆਸ ਕਰਵਾਉਣੇ।

**ਸੈਕਸ਼ਨ-ਸੀ**

- I. **ਦੋ ਰੰਗ** (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ)  
ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਹਾਣੀਕਾਰ :  
(ੳ) ਕੁਲਵੰਤ ਸਿੰਘ ਵਿਰਕ : **ਧਰਤੀ ਹੇਠਲਾ ਬੋਲਦ**  
(ਅ) ਨਵਤੇਜ ਸਿੰਘ : **ਦੂਜੀ ਵਾਰ ਜੇਬ ਕੱਟੀ ਗਈ**  
(ੲ) ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ : **ਲੱਛਮੀ**  
(ਕਹਾਣੀਕਾਰ ਦਾ ਜੀਵਨ, ਕਹਾਣੀ ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਹਾਣੀ ਕਲਾ)
- II. ਮੁਹਾਵਰੇ ਤੇ ਅਖਾਣ (ਅਖਾਣ ਤੇ ਮੁਹਾਵਰਾ ਕੋਸ਼ ਵਿੱਚ) 200 ਮੁਹਾਵਰਿਆਂ ਅਤੇ 100 ਅਖਾਣਾਂ ਨੂੰ ਵਾਕਾਂ ਵਿੱਚ ਵਰਤਣ ਦੇ ਅਭਿਆਸ ਕਰਵਾਉਣੇ (ਕਲਾਸ ਵਿੱਚ ਤੇ ਘਰ ਲਈ)।

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**ਸੈਕਸ਼ਨ-ਡੀ**

- I. ਦੋ ਰੰਗ (ਸੰਪਾ. ਹਰਜਿੰਦਰ ਸਿੰਘ ਢਿੱਲੋਂ, ਪ੍ਰੀਤਮ ਸਿੰਘ ਸਰਗੋਧੀਆ)  
ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਹਾਣੀਕਾਰ :  
(ੳ) ਅਜੀਤ ਕੌਰ : ਬੁੱਤ ਸ਼ਿਕਨ  
(ਅ) ਦਲੀਪ ਕੌਰ ਟਿਵਾਣਾ : ਬੱਸ ਕੰਡਕਟਰ  
(ਕਹਾਣੀਕਾਰ ਦਾ ਜੀਵਨ, ਕਹਾਣੀ ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਹਾਣੀ ਕਲਾ)
- II. ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ : ਨਾਂਵ, ਪੜਨਾਂਵ, ਵਿਸ਼ੇਸ਼ਣ, ਕਿਰਿਆ, ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ, ਸੰਬੰਧਕ

**ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ**

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2. ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚ ਕਰ ਸਕਦਾ ਹੈ।

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**PBL-132:ਮੁੱਢਲੀ ਪੰਜਾਬੀ**  
(In lieu of Punjabi Compulsory)

Credits: 2-0-0 Total

Marks: 100

Mid Semester Marks: 20

End Semester Marks: 80

Mid Semester Examination: 20% weightage

End Semester Examination: 80% weightage

ਪਾਠ-ਕ੍ਰਮ

ਸੈਕਸ਼ਨ-ਏ

ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ : ਪਛਾਣ ਅਤੇ ਵਰਤ

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

ਸੈਕਸ਼ਨ-ਬੀ

ਪਾਠ-ਕ੍ਰਮ ਦਾ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ : ਬਾਜ਼ਾਰ, ਵਪਾਰ, ਰਸਤਾ-ਨਾਤੇ, ਖੇਤੀ ਅਤੇ ਹੋਰਧੰਦਿਆਂ ਨਾਲ ਸਬੰਧਤ ।

ਸੈਕਸ਼ਨ-ਸੀ

ਪੰਜਾਬੀ ਵਾਕ-ਬਣਤਰ

ਸਾਧਾਰਨ-ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤ)

ਸੰਯੁਕਤ-ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤ)

ਮਿਸ਼ਰਤ-ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤ)

ਸੈਕਸ਼ਨ-ਡੀ

ਪੜ੍ਹਾ ਰਚਨਾ

ਸੰਖੇਪ ਰਚਨਾ

**ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ**

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2. ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚ ਕਰ ਸਕਦਾ ਹੈ।

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**HSL:102**

**Punjab History & Culture (1717-1947)  
(Special paper in lieu of Punjabi Compulsory)  
(For those students who are not domicile of Punjab)**

**Credits: 2-0-0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**Section-A**

1. Sikh Struggle for Sovereignty.
2. Ranjit Singh : Conquests, Administration and the Anglo-Sikh Relations.

**Section-B**

3. Anglo-Sikh Wars and the Annexation.
4. The Punjab under the British: New Administration, Education and social Change.

**Section-C**

5. Economic Changes: Agricultural
6. Socio-Religious Reform Movements.

**Section-D**

7. Role of Punjab in the Freedom Struggle.
8. Fairs and Festivals.

**Suggested Reading**

1. Kirpal Singh (ed.), *History and Culture of the Punjab*, Part-II, Punjabi University, Patiala, 1990.
2. Fauja Singh (ed.), *History of Punjab*, Vol, III, Punjabi University, Patiala, 1987.
3. J.S. Grewal, *The Sikhs of the Punjab*, Cup, Cambridge, 1991.
4. Khushwant Singh, *A History of the Sikhs*, Vol. I, OUP, New Delhi, 1990

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

EOL108 : MICROECONOMICS – II

Credits: 4–0–0

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

Equilibrium of the firm and industry. Perfect competition: assumptions, equilibrium of firm and industry, price determination, supply curve of industry, dynamic changes and equilibrium of industry.

**SECTION B**

Monopoly: Assumptions, equilibrium, monopoly power, supply curve, price discrimination, monopoly control and regulation. Monopolistic competition: assumptions, equilibrium, product differentiation, selling costs, excess capacity.

**SECTION C**

Price determination under monoposony and bilateral monopoly. Oligopoly; collusive and non-collusive models.

Critical evaluation of marginal analysis; average cost pricing; elementary treatment of limit pricing.

**SECTION D**

Baumol's sales revenue maximization models. Marris and Williamson Models.

Behavioural theory of the firm; game theory; linear programming model of the firm – elementary view.

**Suggested Readings:**

1. Koutsoyiannis, A. : Modern Microeconomics.
2. Curven, P.J. : The Theory of the firm.
3. Cohen and Cyert : The Theory of the firm.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL109 : MACROECONOMICS– II**

Credits: 4–0–0

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

Basic Concepts: Full employment and various types of unemployment. Aggregate demand and aggregate supply functions. Effective demand.

**SECTION B**

Keynesian Economics: Keynes consumption function; saving and investment functions.

Determination of income, employment and output in Keynesian frame work in a two sector, three sector and four sector economy. Paradox of thrift.

Multiplier: Static and Dynamic analysis. Balanced – budget multiplier. Foreign trade multiplier.

**SECTION C**

Theories of Consumption and Investment: Absolute Income Hypothesis; Relative Income Hypothesis; Permanent Income Hypothesis. Classical theory of investment; Keynesian theory of investment; Accelerator theory of investment.

**SECTION D**

Money: Concept and functions of money; Supply of money; Theories of Demand for Money: Classical, Cambridge, Keynes and Friedman. Theories of Rate of Interest: Classical, Loanable and liquidity preference.

Keynes Vs. Classicals with special reference to wage – price flexibility and full employment. Real Balance Effect.

**Suggested Readings:**

1. Shapiro, E. : Macroeconomic Analysis.
2. Peterson, W.C. : Income, Employment and Economic Growth
3. McConnell, O. & Brue, S.L. : Economics (12th edition).
4. Edgmond, M.R. : Macroeconomic Theory and Policy.



**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL110 : MATHEMATICS FOR ECONOMISTS – II**

Credits: 4–0–0

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

Differentiation: Implicit functions, partial derivatives, Euler's theorem, total derivatives, Maxima and Minima, economic applications.

**SECTION B**

Integrations; Methods of integration, definite integrals, integration by parts, integration of rational fractions, economic applications of integration.

**SECTION C**

Linear Algebra: Matrices, types, products of matrices, inverse of matrix, rank of a matrix, determinants, simultaneous linear equations (Cramer's rule).

Set theory: Union, intersection difference and symmetric differences.

**SECTION D**

Analytical Geometry: Coordinate of point, area of triangle: locus, the straight line, equation of a straight line, intersection of two straight lines.

Circle: Different forms of the equations of a circle, intersection of a line and a circle, parabola, rectangular hyperbola.

**Suggested Readings:**

1. Yamane, Taro : Mathematics for Economists.
2. Allen, R.G.D. : Mathematical Analysis for Economists.
3. Monga, G.S. : Mathematics and Statistics for Economists.
4. Chaing, A. : Fundamental Methods of Mathematical Economics.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

EOL111 : STATISTICS-II

Credits: 4-0-0

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

**Correlation and Regression Analysis:** Partial and multiple correlation coefficients: Derivations, application and properties. Fitting of multiple regression by least squares technique stress on numerical examples.

**SECTION B**

**Growth Curves:** Properties, methods of estimation and applications of parabolic, geometric, exponential, modified exponential curves.

**SECTION C**

**Time Series Analysis:** Meaning, Components: Models, economic significance of time series, methods of estimating trend and seasonal variations.

**SECTION D**

**Probability:** Definition (classical and empirical only), laws of probability, conditional probability and independence of events (applications only) concept of random variables, probability density and mass function, expectation, moments, moment generating function, properties (without proof) of binomial, poisson and normal distributions, numerical examples based upon these distributions and their fitting.

**Suggested Readings:**

1. Spiegel M.R. : Theory and Problems of Statistics.
2. Gupta, S.C. and V.K. Kapoor : Fundamental of Applied Statistics.
3. Mood, A.M. and F.A. Graybill : Introduction to the Theory of Statistics.
4. Karmel, P.H. and Polar K.M. : Applied Statistics and Economists.
5. Croxton E.E., Cowden, D.J. : Applied General Statistics.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL112 : OPERATING SYSTEMS**

**Credits: 3-0-2**

**Total Marks: 100**

**Mid Semester Marks: 20**

Practical: 20

**End Semester Marks: 60**

**Mid Semester Examination: 20% weightage**

**Practical : 20% weightage**

**End Semester Examination: 60% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

What is an Operating System – Evolution of OS.

Machine Language, Assembly, Compiler, Interpreter.

**Types of Operating Systems with Examples.**

MS DOS, Windows, Macintosh, Unix, Linux, Android.

**Functions of Operating System.**

Memory Management (Fixed Sized Partition, variable sized partition, Dynamic.

Memory Management with Reallocation technique, Paging, Demand Paging Techniques).

CPU Management (First Come First Served, Shortest job First, Round Robin Policy).

File Management.

I/O Device Management.

Command Interpreter.

Data Management.

Programme Development Tools.

Time Sharing.

Security.

Communication.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**SECTION B**

Brief History of MS – DOS.

Terminology for MS – DOS.

File.

Types of File (Data, Programme).

Wild Cards (\*, ?).

Directory (Root, Single, Multi, Current)

Relative and Absolute Path.

Booting a System (ROM BIOS, self test, Post, IO.SYS, MSBIOS. SYS,

Autoexec.bat, Config.Sys, Command.Com).

**SECTION C**

**Internal and External Commands with Syntax (Arguments & Parameters)**

**Internal:** cls, date, time, md, cd, copy con, dir., type, ren, delete, rd, copy.

**External:** chkdsk, scandisk, mem, attrib, xcopy, diskcopy, diskcomp, backup, restore.

Features and Benefits of Unix.

Unix System (multi-programming, time sharing, multi-tasking).

Components of Unix (Kernel, Shell).

Unix file system (data blocks, ilist, super block, boot block.)

**SECTION D**

Types of files (Ordinary, directory and Special Files).

Types of users in Unix –levels of users (0 – 2).

Login and Logout from Unix Session.

Types of Shells (Bourne, c – shell, r – shell).

Shell as a Command Interpreter – Functions.

Simple Directory and File Commands

cat, ls, ln, chmod, mail, who, who am I, cal, pwd, date, ps, mkdir, ed, rmdir, rm, tput, clear.

Piping, filters, batch processing, shell programming (echo, read, case constructs).

Editors (vi): Commands for opening, inserting, modifying, deleting and saving a file.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**DRUG ABUSE: PROBLEM, MANAGEMENT AND PREVENTION  
(Student can opt this Paper in 1<sup>st</sup> or 2<sup>nd</sup> Semester)**

**SOA : 101 - PROBLEM OF DRUG ABUSE**

**Time: 3 Hours**

**Credit 3-0-0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION – A**

**Meaning of Drug Abuse:**

- 1) Meaning, Nature and Extent of Drug Abuse in India and Punjab.
- 2) Consequences of Drug Abuse for:
 

Individual	:	Education, Employment, Income.
Family	:	Violence.
Society	:	Crime.
Nation	:	Law and Order problem.

**SECTION – B**

**Management of Drug Abuse:**

- (i) Medical Management: Medication for treatment and to reduce withdrawal effects.
- (ii) Psychiatric Management: Counselling, Behavioural and Cognitive therapy.
- (iii) Social Management: Family, Group therapy and Environmental Intervention.

**SECTION – C**

**Prevention of Drug abuse:**

- (i) Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.
- (ii) School: Counselling, Teacher as role-model. Parent-teacher-Health Professional Coordination, Random testing on students.

**SECTION – D**

**Controlling Drug Abuse:**

- (i) Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs, Publicity and media, Campaigns against drug abuse, Educational and awareness program
- (ii) Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–II)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**References:**

1. Ahuja, Ram (2003), *Social Problems in India*, Rawat Publication, Jaipur.
2. Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment, Government of India, 2004.
3. Inciardi, J.A. 1981. *The Drug Crime Connection*. Beverly Hills: Sage Publications.
4. Kapoor. T. (1985) *Drug epidemic among Indian Youth*, New Delhi: Mittal Pub.
5. Kessel, Neil and Henry Walton. 1982, *Alcoholism*. Harmond Worth: Penguin Books.
6. Modi, Ishwar and Modi, Shalini (1997) *Drugs: Addiction and Prevention*, Jaipur: Rawat Publication.
7. National Household Survey of Alcohol and Drug abuse. (2003) New Delhi, Clinical Epidemiological Unit, All India Institute of Medical Sciences, 2004.
8. Ross Coomber and Others. 2013, *Key Concept in Drugs and Society*. New Delhi: Sage Publications.
9. Sain, Bhim 1991, *Drug Addiction Alcoholism*, Smoking obscenity New Delhi: Mittal Publications.
10. Sandhu, Ranvinder Singh, 2009, *Drug Addiction in Punjab: A Sociological Study*. Amritsar: Guru Nanak Dev University.
11. Singh, Chandra Paul 2000. *Alcohol and Dependence among Industrial Workers*: Delhi: Shipra.
12. Sussman, S and Ames, S.L. (2008). *Drug Abuse: Concepts, Prevention and Cessation*, Cambridge University Press.
13. Verma, P.S. 2017, “*Punjab’s Drug Problem: Contours and Characteristics*”, Economic and Political Weekly, Vol. LII, No. 3, P.P. 40-43.
14. World Drug Report 2016, United Nations office of Drug and Crime.
15. World Drug Report 2017, United Nations office of Drug and Crime.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–III)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL201 : MICROECONOMICS-III**

**Credits: 4–0–0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

**Pricing of factors:** Meaning and concept; Marginal productivity theory of distribution; Euler's Theorem and its application to distribution; Modern theory of distribution; Macro theories of distribution and their relevance to economic theory.

**SECTION B**

**Factor pricing:** Determination of rent, Ricardian theory of rent, Modern theory of rent, Quasi rent, Wages and its determination, Interest : classical and loanable fund theory; Determination of profit and theories of profit.

**SECTION C**

**Equilibrium and its stability:** Static and dynamic stability, existence, uniqueness and stability of equilibrium; the Walrasian and Marshallian stability conditions; Application of dynamic stability : Cob – web theorem.

**Welfare Economics:** Concept and meaning. Value Judgements, inter and intra-personal comparisons; Pigovian concept of welfare.

**SECTION D**

**Welfare Economics:** Pareto Optimality Criteria of social welfare in consumption and production. Deviations from pareto optimality and externalities, compensation criteria; Bergson – Samuelson criteria. Theory of second best and Arrow possibility theorem.

**Suggested Readings:**

1. Koutsoyiannis, A. : Modern Microeconomics.
2. Henderson and Quandt : Microeconomics Theory – A Mathematical Approach.
3. Layard and Walter : Microeconomics Theory.
4. Bruce N. and L. Rooding : Welfare Economics.
5. Weintraub, E.R. : General Equilibrium Theory.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-III)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL202 : MACROECONOMICS-III**

**Credits: 4-0-0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

**Equilibrium in the product and money markets:** IS and LM functions, changes in IS and LM functions, General equilibrium – changes in general equilibrium.

**SECTION B**

Elasticity of IS and LM functions and monetary and fiscal policies ; Wage – price flexibility and general equilibrium; Overall equilibrium in the basic static model (goods, labour and money markets).

**Trade Cycles:** Features, Keynes' view on trade cycle, Schumpeter, Kaldor Samuelsons Hicks models, control of trade cycle.

**SECTION C**

**Economic Growth:** Meaning and Measurement, Harrod and Domar and Neo – classical growth model with and without technical progress.

**Inflation:** Causes, consequences and cures, Inflation – unemployment trade off. Natural rate of unemployment.

**SECTION D**

**Macroeconomic Policy:** Monetary policy – instruments, objectives and effectiveness in recession and boom.

**Fiscal Policy:** Objectives and Instruments, problems of stabilization policy.

**Suggested Readings:**

1. Ackley, G : Macroeconomics: Theory and Policy, Macmillan Publishing Company, New York.
2. Dorabusch & Fischer : Macroeconomics, McGraw Hill, New Delhi.
3. Heijdra, B.J. and F.V.Ploeg: Foundations of Modern Macroeconomics, Oxford University Press, Oxford.
4. Levacic, R. : Macroeconomics, MacMillan, London, 1976.
5. Shapiro, E. : Macroeconomic Analysis, Galgotia Publications, New Delhi, 1996.



**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–III)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL203 : MATHEMATICS FOR ECONOMISTS – III**

**Credits: 4–0–0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

Linear Algebra: Linear dependence and independence of vectors; Characteristics roots and vectors; Quadratic forms; Solution of simultaneous linear equations homogenous and Non-homogenous.

**SECTION B**

**Input – Output Analysis:** Assumptions; Transaction matrix: Technical coefficients, Hawkin – Simon Conditions, open and close input–output systems.

**SECTION C**

**Differential and Difference Equations:** Linear difference and differential equations of first and second order each.

**Linear Programming:** Formulation of linear programming problem.

**SECTION D**

Graphical method, Simplex method, Two–phase simplex method, unbounded solution, infeasible solution, degeneracy and cycling problem. Duality theorem, Solution of primal and dual by simplex method. Dual simplex method.

**Suggested Readings:**

1. Yamane, Taro : Mathematics for Economists.
2. Chiang A. : Fundamental Methods of Mathematical Economics.
3. Chang Yan Chion : Introduction to Input – Output Economics.
4. Taha, H.A. : Operations Research: An Introduction. (2nd Edition).
5. Monga, G.S. : Mathematics for Management & Economics.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–III)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL204 : AGRICULTURAL ECONOMICS**

**Credits: 4–0–0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

**Economics of Agriculture:** Nature, scope and its importance in the economy. Role of agriculture in economic development. Reasons for slow growth of Indian agriculture. Transforming traditional agriculture.

**SECTION B**

**Institutional changes and agricultural development :** Land reforms – consolidation of holdings, abolition of intermediaries, ceiling on land holdings and tenurial reforms – need, nature and evaluation with special reference to India.

**New agricultural technology** – Its impact on production, income distribution and labour absorption. Negative consequences of new agricultural technology in the context of Punjab.

**SECTION C**

**Agricultural Marketing in India:** Structure, types, defects, marketing functions, marketing margins, marketed surplus and marketable surplus. Factors affecting marketed surplus.

**SECTION D**

**Agricultural credit:** Need, role of co–operative and commercial banks.

**Agricultural Price Policy:** Need and objectives. Mobilisation of agricultural surpluses, Terms of trade between agriculture and industry, Public Distribution System : Critical Evaluation.

**Suggested Readings:**

1. Mellor, J.W. (1968) The Economics of Agricultural Development, Cornell University Press, New York.
2. Schultz, T.W. (1964) Transforming Traditional Agriculture, Lyall Book Depot, 1970.
3. Soni, R.N. (2003) Leading Issues in Agricultural Economics, Shoban Lal Nagin Chand & Co., Jalandhar.
4. Sadhu, A.N. and Amarjit Singh (1997) Fundamentals of Agricultural Economics, Himalaya Publishing House.
5. Dorner Peter (1972) Land Reforms and Agricultural Development, Penguin Books.
6. Kahlon, A.S. (1982) Agricultural Price Policy in India, Allied Publishers, New Delhi
7. Mamoria, C.B. (1985) Agricultural Problems in India, Allahabad, Kitab Mahal.
8. Acharya, S.S. & M.L. Aggarwal (2002) Marketing of Farm Products in India, Oxford, IBH Publications.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–III)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL205 : INTRODUCTION TO GUI PACKAGES**

**Credits: 4–0–0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

**Introduction to Windows – XP / Windows 7**

Limitations of Non-GUI Systems

Advantages of GUI Systems

Evolution of Windows

Origin of Windows

Parts of Windows Screen (Definition)

The Desk Top, The Windows, Icons

Types of Windows

Application Windows, Document Windows

Anatomy of a Window

The Title Bar, Minimize & Maximize Button, The Control Box, Scroll Bars, Scroll Buttons and Scroll Boxes.

**SECTION B**

Composition of Desktop

Different ways to run programs

Using File Manager

Create files, Copy files, Move file, Rename files, Searching a file,

Editing Files, Saving Files, Deleting Files, Printing Files

**SECTION C**

**Basics of Windows XP**

System requirement for installing windows.

The Desktop, the Taskbar, Start menu, Different options under All Programs, Documents, Settings, Find, Help, Run, Shutdown, About the My Computer Icon.

**SECTION D**

About My Networking Places Icon, Recycle Bin, Internet Explorer, Control Panel, Folders – Creation and Definition, Rules for File Names, Windows Explorer (Definition), Shortcut Icons with creation and definition, Service Pack 1, 2 and 3, Different options under All Programs.

**References:**

Alan Simpsons' Wndows Xp Bible.

Computer Fundamental by P.K.Sinha

**NOTE: Credits has for 2 Practicals is equal to one (01) Lecture.**

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-III)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**ESL 220 ENVIRONMENTAL STUDIES (COMPULSORY PAPER)**

**Credits: 4-0-0**

**Teaching Methodologies**

The Core Module Syllabus for Environmental Studies includes class room teaching and field work. The syllabus is divided into 8 Units [Unit-1 to Unit-VII] covering 45 lectures + 5 hours for field work [Unit-VIII]. The first 7 Units will cover 45 lectures which are class room based to enhance knowledge skills and attitude to environment. Unit-VIII comprises of 5 hours field work to be submitted by each candidate to the Teacher in-charge for evaluation latest by 15 December, 2019.

**Exam Pattern:**                      **End Semester Examination- 75 marks**  
    **Project Report/Field Study- 25 marks [based on submitted report]**  
    **Total Marks- 100**

The structure of the question paper being:

**Part-A, Short answer pattern with inbuilt choice – 25 marks**

Attempt any five questions out of seven distributed equally from Unit-1 to Unit-VII. Each question carries 5 marks. Answer to each question should not exceed 2 pages.

**Part-B, Essay type with inbuilt choice – 50 marks**

Attempt any five questions out of eight distributed equally from Unit-1 to Unit-VII. Each question carries 10 marks. Answer to each question should not exceed 5 pages.

**Project Report / Internal Assessment:**

**Part-C, Field work – 25 marks [Field work equal to 5 lecture hours]**

The candidate will submit a hand written field work report showing photographs, sketches, observations, perspective of any topic related to Environment or Ecosystem. The exhaustive list for project report/area of study are given just for reference:

1. Visit to a local area to document environmental assets: River / Forest/ Grassland / Hill / Mountain / Water body / Pond / Lake / Solid Waste Disposal / Water Treatment Plant / Wastewater Treatment Facility etc.
2. Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
3. Study of common plants, insects, birds
4. Study of tree in your areas with their botanical names and soil types
5. Study of birds and their nesting habits
6. Study of local pond in terms of wastewater inflow and water quality
7. Study of industrial units in your area. Name of industry, type of industry, Size (Large, Medium or small scale)
8. Study of common disease in the village and basic data from community health centre
9. Adopt any five young plants and photograph its growth
10. Analyze the Total dissolved solids of ground water samples in your area.
11. Study of Particulate Matter (PM<sub>2.5</sub> or PM<sub>10</sub>) data from Sameer website. Download from Play store.
12. Perspective on any field on Environmental Studies with secondary data taken from Central Pollution Control Board, State Pollution Control Board, State Science & Technology Council etc.

**Unit-I**

**The multidisciplinary nature of environmental studies**

Definition, scope and importance, Need for public awareness

**(2 lectures)**

**Unit-II**

**Natural Resources: Renewable and non-renewable resources:**

Natural resources and associated problems.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-III)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

- (a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.
- (b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
- (c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
- (d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
- (e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.
- (f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.
  - Role of an individual in conservation of natural resources.
  - Equitable use of resources for sustainable lifestyles.

**(8 Lectures)**

**Unit-III**

**Ecosystems**

- Concept of an ecosystem
- Structure and function of an ecosystem
- Producers, consumers and decomposers
- Energy flow in the ecosystem
- Ecological succession
- Food chains, food webs and ecological pyramids
- Introduction, types, characteristic features, structure and function of the following ecosystem: Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

**(6 Lectures)**

**Unit-IV**

**Biodiversity and its conservation**

- Introduction – Definition: genetic, species and ecosystem diversity
- Biogeographical classification of India
- Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values
- Biodiversity at global, national and local levels
- India as a mega-diversity nation
- Hot-spots of biodiversity
- Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts
- Endangered and endemic species of India
- Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

**(8 Lectures)**

**Unit-V**

**Environmental Pollution**

**Definition**

- Causes, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear pollution
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution
- Pollution case studies
- Disaster management: floods, earthquake, cyclone and landslides

**(8 Lectures)**

**Unit-VI**

**Social Issues and the Environment**

- From unsustainable to sustainable development

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-III)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

- Urban problems and related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case studies.
- Environmental ethics: Issues and possible solutions
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- Wasteland reclamation
- Consumerism and waste products
- Environmental Protection Act, 1986
- Air (Prevention and Control of Pollution) Act, 1981
- Water (Prevention and control of Pollution) Act, 1974
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation
- Public awareness

**(7 Lectures)**

**Unit-VII**

**Human Population and the Environment**

- Population growth, variation among nations
- Population explosion – Family Welfare Programmes
- Environment and human health
- Human Rights
- Value Education
- HIV / AIDS
- Women and Child Welfare
- Role of Information Technology in Environment and Human Health
- Case Studies

**(6 Lectures)**

**Unit-VIII**

**Field Work**

- Visit to a local area to document environmental assets river/forest/grassland/hill/mountain
- Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems-pond, river, hill slopes, etc

**(Field work equal to 5 lecture hours)**

**References:**

1. Bharucha, E. 2005. Textbook of Environmental Studies, Universities Press, Hyderabad.
2. Down to Earth, Centre for Science and Environment, New Delhi.
3. Heywood, V.H. & Waston, R.T. 1995. Global Biodiversity Assessment, Cambridge House, Delhi.
4. Joseph, K. & Nagendran, R. 2004. Essentials of Environmental Studies, Pearson Education (Singapore) Pte. Ltd., Delhi.
5. Kaushik, A. & Kaushik, C.P. 2004. Perspective in Environmental Studies, New Age International (P) Ltd, New Delhi.
6. Rajagopalan, R. 2011. Environmental Studies from Crisis to Cure. Oxford University Press, New Delhi.
7. Sharma, J. P., Sharma. N.K. & Yadav, N.S. 2005. Comprehensive Environmental Studies, Laxmi Publications, New Delhi.
8. Sharma, P. D. 2009. Ecology and Environment, Rastogi Publications, Meerut.
9. State of India's Environment 2018 by Centre for Sciences and Environment, New Delhi
10. Subramanian, V. 2002. A Text Book in Environmental Sciences, Narosa Publishing House, New Delhi.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-IV)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL209 : STATISTICS-III**

**Credits: 4-0-0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

**Axiomatic definition of probability:** Addition and multiplication laws; conditional probability; independence of events; Bayes's Theorem.

**Probability distributions:** Binomial, Poisson and normal distributions; derivation of their properties; numerical problems based on these distributions; fitting of these distributions.

**SECTION B**

**Sampling:** Concepts used in sampling: methods of sampling: simple random, systematic and stratified. Point estimation: Concept of random sampling, meaning of an estimator; properties of a good estimator; methods of estimation – method of moments, method of least squares and method of maximum likelihood (with more emphasis on the method of m.l.e.).

**SECTION C**

Elementary ideas about sampling distribution of sample mean, Z, t, chi square of F: Testing of significance; concepts of null and alternative hypothesis; types of errors; some elementary tests based on above sampling distributions.

**SECTION D**

**Statistical Quality Control:** Conceptual meaning; methods of construction (with stress on numericals) of mean chart and range chart.

**Suggested Readings:**

1. Mood, A.M. and F.M. Graybill Introduction to theory of statistics, McGraw Hill, New York, 1963.
2. Goon, A.M., M.K. Gupta, B. Das Gupta An Outline of Statistical Theory, The World Press, Calcutta, 1977.
3. Kapur, J.N. and Saxena, H.C. Mathematical Statistics, S. Chand and Company, New Delhi, 1995.
4. Hogg, Robert, W. and Tanis, Elliot, A. Probability and Statistical Inference, MacMillan, New York, 1977.
5. Sukhatme, P.V. and Sukhatme, B.V. Sampling Theory of Surveys with Applications IOWA State University Press, U.S.A., 1970.
6. Gupta, S.C. and Kapoor, V.K. Fundamentals of Applied Statistics, Sultan Chand & Co., New Delhi, 1978.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-IV)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL210 : MONEY AND BANKING**

**Credits: 4-0-0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

**Money:** Nature and functions; money and near money; supply of money: mechanics of money supply creation; measures of money supply in India. Demand for money: Fisher, Cambridge, Keynesian and Friedman theories.

**SECTION B**

**Rate of Interest:** Determination; factors affecting the level and structure of interest rates. Money and capital markets: Role, constituents and functions.

**SECTION C**

**Commercial Banking:** Functions, theories; credit creation. Commercial banking in India; Structure; nationalisation: objectives, performance and evaluation.

**SECTION D**

**Central Banking:** Meaning and functions, techniques of credit control with special reference to India, Recent monetary and credit policies in India.

**Monetary Policy:** Targets and indicators; macroeconomic objectives. Monetary policy in less developed countries. Inflation: Types, causes and effects, measures to control inflation.

**Suggested Readings:**

1. Luckett, D.G. Money & Banking, McGraw Hill, New York, 1976.
2. Gupta, S.B. Monetary Planning for India, University Press, New Delhi.
3. Cargill, T.F. Money: The Financial system and monetary policy, Englewood Cliffs, Prentice Hall, 1979.
4. Shekhar, K. G. Banking Theory and Practice law and Foreign Exchange, 6<sup>th</sup> edition, Vikas Publishing House, New Delhi, 1978.
5. Misra, S. Puri Indian Economy, Himalya Publishing House, New Delhi (Latest Edition).
6. Reserve Bank of India Report on Currency and Finance.
7. ————— Reserve Bank of India Bulletin, Economic Times, Financial Express.



**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-IV)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL211 : INDUSTRIAL ECONOMICS**

**Credits: 4-0-0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

**Definition:** Nature and scope of Industrial Economics. History and development of Industrial Economics. Firm, industry, passive and active behaviour of the firm, Conceptual framework for the study of Industrial Economics. Organizational form and alternative motives of the firm.

**SECTION B**

**Basic Concepts:** Market, Market structure, Market power, Seller's concentration, entry conditions and economies of scale.

**SECTION C**

**Growth of the firm:** Acquisition, diversification, product differentiation, merger; constraints on Growth: demand, managerial and financial.

**SECTION D**

**Theories of Industrial Location:** Factors affecting location; contributions of weber and Sargent Florance. Location policy in India since Independence. Industrial concentration and dispersal in India. Industrial growth under planning in India. Industrial policy.

**Suggested Readings:**

1. Barthwal, B.R. : Industrial Economics.
2. Devine, P.J. and others : An introduction to Industrial Economics.
3. Hay and Morris : Industrial Economics Theory and Evidence.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-IV)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL212 : LABOUR ECONOMICS**

**Credits: 4-0-0**

**Total Marks: 100**

**Mid Semester Marks: 20**

**End Semester Marks: 80**

**Mid Semester Examination: 20% weightage**

**End Semester Examination: 80% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

Nature and characteristics of Labour Markets in developing countries like India ; Classical, neo-classical and dualistic theories of labour markets; Analysis of demand and supply of labour.

**SECTION B**

**Unemployment** : Concepts, Causes and Measurement; Strategies for Employment Generation, Classical, neo-classical and bargaining theories of wage determination; Concepts and causes of wage differentials.

**SECTION C**

Growth, Structure and pattern of trade unions in India; Causes of Industrial disputes ; methods of settlement; Collective bargaining, conciliation, arbitration and labour participation in management ; Growth, pattern and structure of labour unions in India.

**SECTION D**

State and social security of labour in India; Labour market reforms : Exit policy and measures imparting flexibility in labour markets ; Globalisation and labour markets, International Labour Standard and its Impact.

**Recommended Readings:**

1. Hajela, P.D. (1998), Labour Restructuring in India : A Critique of the New Economic Policies, Commonwealth Publisher, New Delhi.
2. Lester, R.A. (1964), Economics of Labour, (2nd Edition), Macmillan, New York
3. McConnell, C.R. and S.L.Brue (1986), Contemporary Labour Economics, McGraw-Hill, New York.
4. Papola, T.S., P.P.Ghosh and A.N.Sharma (Eds) (1993), Labour, Employment and Industrial Relations in India, B.R.Publishing Corporation, New Delhi.
5. Venkata Ratnam, C.S.(2001), Globalization and Labour-Management Relations : Dynamics of Change, Sage Publications / Response Books, New Delhi.
6. McCormick B. and Smith (Eds) (1968), The Labour Market, Penguin, Harmondsworth.
7. Das, N. (1960), Unemployment, Full Employment and India, Asia Publishing House, Bombay.
8. Deshpande L.K. and J.C.Sandesara, (Eds) (1970), Wage Policy and Wages Determination in India, Bombay University Press, Bombay.
9. Hicks J.R. (1932), The Theory of Wages, Clarendon Press, Oxford.
10. Mazumdar, D. (1989), Micro-economic Issues of Labour Markets in Developing Countries, EDI Services Paper No.40, World Bank, Washington D.C.
11. Memoria, C.B. (1966), Labour Problems & Social Welfare in India, Kitab Mahal, Allahabad.
12. Puneekar, S.D.(1978), Labour Welfare, Trade Unionism and Industrial Relations, Himalaya Publishing House, Bombay.
13. Singh V.B. (Ed) (1970), Industrial Labour in India, Popular Parakashan, Bombay.
14. Misra, L. (2000), Child Labour in India, Oxford University Press, New Delhi.
15. Riveros, L. (1990), Labour Market Policies and Labour Market Reforms in Socialist Economies, World Bank, Washington D.C.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-IV)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**EOL213 : RELATIONAL DATABASE AND MANAGEMENT SYSTEM**

**Credits: 3-0-2**

**Total Marks: 100**

**Mid Semester Marks: 20**

**Practical Marks: 20**

**End Semester Marks: 60**

**Mid Semester Examination: 20% weightage**

**Practical : 20% weightage**

**End Semester Examination: 60% weightage**

**Instructions for the Paper Setters:**

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**SECTION A**

Definition of 3GL and 4GL Languages.

Definition of CODD's Rules.

Introduction to RDBMS and Oracle – Advantages and Limitations over DBMS.

Normalisation of Data: First, Second and Third Normal Form.

Database Models – Hierarchical, Network and Relational.

Features of SQL – Compatibility, Portability, Data Dictionary.

Introduction to SQL plus – Definition.

**SQL Operators:**

=, != <> <> = <= (NOT) BETWEEN .....AND..... (NOT) IN (text), (NOT) like,  
IS (NOT) NULL, NOT, AND, OR.

**Data Types:**

Char, numbers, date long, raw, long raw.

**DDL Commands of SQL:**

Create tables.

Alter Table, view.

Drop Table.

Create View—— As select from, where.

Rename.

Create Index.

**SECTION B**

**Data Manipulation Language:**

**Select**

Select distinct.

Select from where.

Select from where order by.

Select group by clause.

Select group by having clause.

**Insert Into**

**Update Statement.**

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-IV)  
(CREDIT BASED EVALUATION AND GRADING SYSTEM)**

**Delete Statement.**

**Data Control Language:**

Rollback.

Revoke.

Grant.

Sub Query Definition with 2 Levels.

**SECTION C**

**Aggregate Functions:**

Sum, avg, max, min, count, stddev, variance.

**Character Functions:**

Lower, Upper, Length, Substr, RPAD, LPAD

**Arithmetic Functions:**

Round, Trunc, Sqrt, Mod, Abs, Sine.

**Date and Time Functions and other Miscellaneous Functions:**

(Add – months, months–between, NVL, translate, field concatenation. Decode).

Conversion Functions (to–char, to–number, to–date).

**Introduction to PL / SQL:**

Relationship between SQL & PL / SQL.

Advantages of PL / SQL.

PL / SQL block structure.

Variable and Constant Declaration.

Declaration using attributes

% type attribute.

If else if ends if statement.

**SECTION D**

**Iterative Controls.**

Simple Loops (Loop ——— end loop).

Numeric FOR Loops.

While Loops.

Intro and Advantages of procedures and functions with examples.

**Intro to Database Triggers.**

Creation of a database triggers with example.

Enable and disable of database trigger.

Drop a database trigger.

**Developer 2000**

Reports 2.5

Forms 4.5

**Utilities**

Export / Import.

SQL \* Loader.

**NOTE: Credits for 2 Practicals is equal to one (01) Lecture.**

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-V)  
(UNDER CREDIT BASED CONTINUOUS EVALUATION GRADING SYSTEM)**

**EOL301 : PUBLIC FINANCE**

**Credits : 4-0-0**

**Minor-I**

**Nature and Scope of Public Finance:** Principle of Maximum Social Advantage; Sources of Public Revenue; Canons of taxation; Concept of Equity in taxation; Principles of taxation; Benefit Received and Ability to pay.

**Taxable Capacity:** Concept and its significance; Factors determining taxable capacity; Taxable Capacity in India.

**Minor-II**

**Direct vs. Indirect Taxes:** Proportional vs. Progressive taxes; Tax Structure in India; Tax Elasticity and Buoyancy of Taxes.

**Incidence of Taxation:** (Concept of impact, shifting and incidence); tax shifting (Forward and Backward); tax capitalization, theories of shifting of taxation; Effects of taxation on production and distribution.

**Major (including Minor-I and Minor-II)**

**Public Expenditure:** Concept, budgetary classification of public expenditure, growth and effects of public expenditure.

**Public Debt:** Concept, Forms, Sources of Public Borrowings; public debt management, public debt sustainability. Fiscal policy and fiscal reforms in India.

**Suggested Readings:**

1. Bhargava, R.N. Theory and Working of Union Finance in India (Latest Edition)
2. Chelliah, Raha J. Fiscal Policy in Underdeveloped Countries.
3. Dalton, Hugh Principles of Public Finance.
4. Misra, B. Economics of Public Finance.
5. Om Parkash. Economics of Public Finance.
6. Prest, A.R. Public Finance in Theory and Practice.
7. ----- Public Finance in Developing Countries.
8. Tyagi, B.P. Public Finance.
9. Government of India: Economic Surveys
10. A.E.A. Readings in Economics of Taxation
11. Government of India

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–V)**  
**(UNDER CREDIT BASED CONTINUOUS EVALUATION GRADING SYSTEM)**

**EOL302 : INDIAN ECONOMY**

**Credits : 4-0-0**

**Minor-I**

**Poverty, Unemployment and Human Development:** Estimates of inequality and poverty, measures for eradication and their appraisal, HDI, India's population policy and development.

**Minor-II**

**Planning:** From Central Planning to Indicative Planning, Relation between markets and planning for growth and decentralized planning.

Reforms : Liberalization, privatization and globalization; Rationale behind economic reforms.

**Basic Issues in Agriculture:** Trends in agricultural production and productivity; Factors determining productivity; New agricultural strategy and Green Revolution; Agricultural price policy and public distribution system, WTO and agriculture.

**Major (including Minor-I and Minor-II)**

**Issues in Industrial Development:** Industrial development, performance and prospects; Industry under liberalized regime; Public/Private/PPP sector in India.

**External Sector :** India's foreign trade- features, composition and direction; India's balance of payments; Recent Indian trade policy; Multinational Corporations (MNCs).

**Recommended Readings:**

1. Datt, R. and K.P.M. Sundhram (2003), Indian Economy, S. Chand & Company Ltd., New Delhi.
2. Dhingra, I.C. (2003), The Indian Economy Environment and Policy, Sultan Chand & Sons, New Delhi.
3. Rao, Hanumanatha, C.H. Technological Change and Distribution of Gains in Indian Agriculture, 1980.
4. Economic Survey of India.
5. Economic Times and Financial Express.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–V)  
(UNDER CREDIT BASED CONTINUOUS EVALUATION GRADING SYSTEM)**

EOL303

**ECONOMIC HISTORY OF INDIA****Credits : 4-0-0****Minor-I**

Indian Economy in 19<sup>th</sup> century: an overview of agriculture, industry, trade and British economic and commercial policies.

The agrarian science: Land revenue and Land tenure system; British land reform policy and after independence; commercialization of agriculture.

**Minor-II**

Famines: nature, causes and policy; rural indebtedness.

Population: estimates and growth; characteristics of population; fertility, mortality and sex ratio.

**Major (including Minor-I and Minor-II)**

Growth and evolution of industries; Growth of cotton textiles and iron and steel industry. Growth of railways and its impact.

Impact of British rule and the theory of economic drain.

**Recommended Readings:**

- |                          |   |  |
|--------------------------|---|--|
| Dutt, R.P.               | : | India Today, Calcutta, Manisha, 1970.  |
| Kaushal, G.              | : | Economic History of India (1757 – 1966), Ludhiana, Kalyani Publishers, 1979. |
| Knowles, L.C.            | : | Economics Development of the British overseas Empire.                        |
| Rustey, V.               | : | Economic Development of India.   |
| Jathar, G.B. & S.S. Beri | : | Indian Economics, OUP, 1937.   |
| Singh, V.B.              | : | Economic History of India (1857 – 1956).                                     |
| Chakrabarti, S.C.        | : | Economic Development of India, 1965.   |

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-V)  
(UNDER CREDIT BASED CONTINUOUS EVALUATION GRADING SYSTEM)**

EOL304

**INTERNATIONAL ECONOMICS****Credits : 4-0-0****Minor-I**

**Trade Theories and Commercial Policy:** Theories of absolute advantage, comparative advantage and opportunity cost ; Heckscher-Ohlin theory of trade- its main features, assumptions and limitations : Terms of trade (concepts and secular deterioration in terms of trade).

**Minor-II**

**Commercial Policy:** Tariff and non-tariff barriers to trade (quota, voluntary export restraints, export subsidies, dumping and international cartel); Tariff and quota (partial equilibrium analysis).

**Balance of Trade and Balance of Payments :** Concepts and components of balance of trade and balance of payments; Various measures to correct deficit in the balance of payment.

**Major (including Minor-I and Minor-II)**

**Exchange Rate :** Meaning, concept of equilibrium exchange rate and determination; Fixed versus flexible exchange rates.

**International Monetary System and International Institutions :** Brettonwood systems and its breakdown, International liquidity, Special drawing rights.

**Recommended Readings:**

1. Green Away,D.(1983) : International Trade Policy,Macmillan Publishers Ltd., London.
2. Heller, Robert (1977) : International Trade Theory and Empirical Evidence, Prentice Hall, New Delhi.
3. Ingo Walter (1975) : International Economics, Ronald Press, New York, 1975.
4. Soderston, B. (1991) : International Economics, McMillan, New York.
5. Salvatore, D.L. (1991) : International Economics, Prentice Hall, Upper Saddle River, New Delhi.
6. Todaro, Michael (1991) : Economic Development, Longman, New York. 1994.
7. Yeagre (1976) : International Monetary Relations, Theory, History and Policy, Harper and Row, New York, 1976.



**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-V)  
(UNDER CREDIT BASED CONTINUOUS EVALUATION GRADING SYSTEM)**

**EOL305 ECONOMETRICS**

**Credits : 4-0-0**

**Minor-I**

Nature and meaning of econometric; Difference between mathematical economics , statistics and econometrics.

Simple linear regression model (Two variables): Sources of disturbance terms, assumptions, least squares estimators and their properties.

**General linear regression model:** Definition, assumptions, least-squares estimation.

**Minor-II**

Gauss-Markov's theorem for a general linear regression model; testing significance of regression coefficients, concepts of  $R^2$  and  $R^2_{adj}$ . Estimation of quadratic, semi-log and double-log functions; simple and compound rates of growth (with applications).

Concept of analysis of variance approach; One-way ANOVA (application only); Applications of ANOVA technique in regression analysis – testing significance of  $R^2$ , significance of improvement in  $R^2$  due to additional explanatory variables, Chow's test.

**Major (including Minor-I and Minor-II)**

Problems of multicollinearity, autocorrelation and heteroscedasticity: Nature, consequences, tests and remedies (elementary treatment).

**Recommended Readings:**

Chow, G. : Econometrics, (1983).

Ghosh, S.K. : Econometrics

Gujrati, D. : Basic Econometrics (1955, 3rd edition, McGraw Hill Inc.)

Kelejian and Oats : Introduction to the Theory of Econometrics.

Koutsoyiannis, A. : Theory of Econometrics (1978).

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-V)  
(UNDER CREDIT BASED CONTINUOUS EVALUATION GRADING SYSTEM)**

**EOL306 : SAD AND STRUCTURE PROGRAMME**

**Credits : 3-0-2**

**MINOR-I**

**SAD**

System Design, Analysis Identification, System Development Life Cycle.

CAD – Context Analysis Diagram.

DFD – Data Flow Diagrams.

Entity Relationship Charts, ER Diagrams.

**MINOR-II**

Data Structures.

Introduction to Data Structures, Complexity of an algorithm, time space trade off.

Big O notation, Types of Data structures.

Queue, Stack, Array, Link List, Tree. Linear search and Binary search operations: Traversing, Searching, Sorting, Merging, Deleting.

**MAJOR (INCLUDING MINOR-I AND MINOR-II)**

Introduction to C language, Features, Data types, Operators, Conditional statements, Iterative controls, Array, Strings, Call by value and Call by reference functions, Structure and Union in C.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–VI)  
(UNDER CREDIT BASED CONTINUOUS EVALUATION GRADING SYSTEM)**

**EOL307 REGIONAL ECONOMICS WITH SPECIAL REFERENCE TO PUNJAB ECONOMY**

**Credits : 4-0-0**

**Minor-I**

**Regional Economics:** Concept, Scope and framework; Regional economic problems; Location factors; Location of places & their problems; Nature of Regions and relation of activities within a region; Regional policy & objectives.

**Minor-II**

**Structural Changes in Punjab Economy:** Agriculture in Punjab, Growth & productivity. Green Revolution; role, performance & implications; Agricultural diversification, rationale, constraints and prospects; Agriculture credit & marketing; W.T.O and Punjab agriculture.

**Major (including Minor-I and Minor-II)**

**Industry in Punjab:** Industrial development – Pattern, performance, constraints & challenges; Small-scale industry role, problems & future prospects.

Finances of Punjab State; Sources of revenue and heads of expenditure; Problems of resource mobilization & fiscal crisis in Punjab.

**Recommended Readings:**

Hoover, F.M.	:	An Introduction to Regional Economics.
Richardson, H.W.	:	Regional Economics.
Raikhya, P.S. & S.S. Gill	:	Resource Mobilisation and Economic Development: A Regional Perspective.
Govt. of Punjab	:	Statistical Abstracts.
Bawa R.S. & P.S. Raikhya	:	Punjab Economy : Emerging Issues
Kaur, Paramjeet	:	Punjab Economy – Performance and Prospects

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–VI)  
(UNDER CREDIT BASED CONTINUOUS EVALUATION GRADING SYSTEM)**

**EOL308****ENTREPRENEURIAL DEVELOPMENT****Credits : 4-0-0****Minor-I**

Need, scope, importance and characteristics of entrepreneurship, special scheme for Technical Entrepreneurs (STED), importance and relevance. Identification of opportunities in the context of exposure to demand based, resource based, service based, import substitution and export promotion industries.

**Minor-II**

Market survey techniques : relevance and evaluation, Need, scope & approaches for project formulation and techniques of project evaluation. Choice of technology in plant and equipment. Institutional financing procedures and financial incentives, resource management of men, machine and materials.

Critical Path Method (CPM) & Project Evaluation Review Techniques (PERT) as Planning tools for establishing SST. Strength, Weakness Opportunity and Threat (SWOT Analysis) Technique.

**Major (including Minor-I and Minor-II)**

Techno-economic feasibility of the project. Plant layout & Process Planning for the Product. Quality control/quality assurance and testing of project.

Elements of marketing & sales management: Nature of Product and Market strategy, packaging and advertising, after sales service. Pollution Control; Social responsibility and business ethics.

**References:**

- |                                   |  |
|-----------------------------------|--|
| 1. Deshpande. M. V.               | Entrepreneurship of small scale industries: Concept Growth & Management. Deep & Deep Publication D-1/24, Rajouri Garden, New Delhi- 110027 1984. |
| 2. Mc Cleand D.C                  | The Achieving Society, Princeton N.J.D. Van Nostrand Co N. Y. 1961.  |
| 3. Meredith G.G. Nelson<br>Rcetal | Practice of Entrepreneurship ILO, Geneva, 1982.  |
| 4. Pareek U & rao TV              | Personal Efficacy in Developing Entrepreneurship Learning Systems N.Delhi 1978.  |
| 5. Rao TV & Parcok U              | Developing Entrepreneurship- A hand book Learning Systems, N Delhi.  |

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–VI)  
(UNDER CREDIT BASED CONTINUOUS EVALUATION GRADING SYSTEM)**

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|---|---|
| 6. Vyas, JN   | Planning an Industrial Unit I Neelkung Neelkanth Part, Opp. Navrangpura, Ahmedabad.   |
| 7. Welsh, JA & Jerry                                | Entrepreneurs Master Planning Guide How To Launch a successful Business, Prentice Hall Englewood Cliffs, 1983.                  |
| 8. Department of Industrial Development             | Incentives & Concessions for setting up industries in Backward Areas, Deptt of Industrial Development Govt of India, New Delhi. |
| 9. India investment industrial Centre               | Guide for Entrepreneurs India investment Centre, Jeevan Vihar Building, Sansad Marg, New Delhi.                                 |
| 10. Entrepreneurship Development Institute of India | A Hand book for New Entrepreneurs (with spcial reference to S & T Group) Entrepreneuship Development Institute of India.        |
| 11. Kahn, S. S                                      | Entrepreneuship Development   |

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-VI)  
(UNDER CREDIT BASED CONTINUOUS EVALUATION GRADING SYSTEM)**

EOL309

**DEVELOPMENT ECONOMICS****Credits : 4-0-0****Minor-I**

**Economic Development:** Meaning, measurement and international comparisons. Human Development index and other indices of development and quality of life. Economic and non-economic factors of development. Growth and distribution. Poverty and environment.

**Dualistic Development:** Social and technological dualism.

**Minor-II**

Lewis model of unlimited supply of labour; Ranis and Fei model. Measurement of surplus labour. Unemployment and disguised unemployment.

**Models of growth:** Classical model: the Marxian model; Schumpeter's model; Keynesian model; the Harrod – Domar model.

**Major (including Minor-I and Minor-II)**

**Development Strategies:** Theory of balanced growth and big push; The unbalanced growth and critical minimum effort thesis; import replacing vs. export oriented industrialisation; investment allocation criteria choice of technique.

**Capital formation:** Meaning and sources; capital – output ratio. Human capital: concept and utilisation. Foreign aid – forms and sources. Trade vs. aid. Transfer of technology.

**Recommended Readings:**

1. Ghatak, S. : An Introduction to Development Economics, Allen and Unwin, London.
2. Higgins, B. : Economic Development: Theory and Policies,  
Central Book Depot, Allahabad, 1963.
3. Kuznets, S. : Population, Capital and Growth, Heina Mann Educational Books, 1974.
4. Meier, G.M. : Leading Issues in Economic Development, Oxford University Press,  
New Delhi, 1995.
5. Thirlwall, A.P. : Growth and Development, Macmillan, London, 1999.
6. Todaro, M.P. : Economic Development in Third World, Oxford University, London.
7. Yotopoulos, P.A. : Economics of Development, Harper and Row, New York, 1976.  
& Nugent J.

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–VI)  
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**EOL310**

**COMPARATIVE ECONOMIC SYSTEMS**

**Credits : 4-0-0**

**Minor-I**

**Economic Systems:** Meaning, concept and features, Marxian classification of economic systems; pre-capitalist societies. Capitalism; Socialism and mixed economies. Mode of production as a classification criteria. Consumer's sovereignty in private enterprise system and in planned socialist economies.

**Minor-II**

**Capitalism** as a theoretical concept; capitalism as an existing system; the reformulated capitalist economies of the world. Marxian philosophy and interpretation of Marxian theory of surplus value: crisis in capitalism, breakdown and socialism; pre-requisites, problems and processes of socialist transformation.

**Major (including Minor-I and Minor-II)**

**Socialism:** Transformation of production relations, institutions and ideas with special reference to USSR. Planning in socialist countries, balance approach, development priorities and resource allocation, employment and skill formation. International economic relations between socialist and third world developing countries.

**Recommended Readings:**

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|--------------------------------|---|--|
| 1. Halm, George, N.            | : | Economic Systems: A Comparative Analysis.                |
| 2. Louks, V.N. & Whitney, W.C. | : | Comparative Economic Systems.                            |
| 3. Dalton, G.                  | : | Economic Systems and Society.                            |
| 4. Willezynski, J.             | : | Economics of Socialism.                                  |
| 5. Kolov, G.A.                 | : | Political Economy of Socialism.                          |
| 6. Lavigne, M.                 | : | Economics of East European Socialist Countries and USSR. |

**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER–VI)  
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EOL 311

**ACCOUNTING AND FINANCIAL MANAGEMENT****Credits : 4-0-0****Minor-I**

**Meaning and Scope of Accounting:** Accounting concepts and conventions. Double entry system of accounting, Preparation of Journal, Ledger and Trial Balance.

Distinction between capital and revenue items. Preparation of trading and profit and loss account and balance sheet.

**Minor-II**

**Cost accounting** – Meaning and scope. Distinction between cost accounting and financial accounting. Advantages of cost accounting and financial accounting. Elements of cost: material, labour overheads. Preparation of Cost Sheet.

Elementary knowledge regarding standard costing. Budgetary control and Break – even analysis.

**Major (including Minor-I and Minor-II)**

Objectives and functions of Financial Management.

**Capital Budgeting:** Introduction, Process, Traditional and Modern Methods of Capital Budgeting.

**Cost of Capital:** Cost of debt, Preference Shares and Cost of Equity, Weighted Average Cost of Capital.

**Sources of Raising Funds:** Internal and External Sources.

**Recommended Readings:**

1. S.N. Maheshwari : An Introduction to Accounting., Vikas Publishing House Pvt. Ltd.
2. Pandey, I.M. : Financial Management.
3. Ghosh, P.K. : Cost Accounting. National Publishing House, Darya Ganj, New Delhi.
4. Prasad, N.K. : Principles and Practices of Cost Accounting, Book Syndicate, Calcutta.



**B.SC. (HONOURS SCHOOL) ECONOMICS (SEMESTER-VI)  
(UNDER CREDIT BASED CONTINUOUS EVALUATION GRADING SYSTEM)**

**EOL312 : COMPUTER NETWORKS AND INTERNET APPLICATIONS**

**Credits : 3-0-2**

Objective : To enable the students to have understanding of various network designs, topologies and services provided by Networks.

**MINOR-I**

Introduction : Network definition, network hardware and software, Network topologies, uses of computer networks, Transmission media: Twisted Pair, Coaxial cable, Fiber optics, Radiowaves, Microwaves, Bluetooth. OSI Reference models, TCP/IP reference model.

Analog and Digital Transmission, Switching.

Networking Devices : Repeaters, Gateway, Bridge, Hub and Switch.

Network Security and Privacy : Data Representation, Fundamentals of Data Compression Techniques and Cryptography.

**MINOR-II**

Introducing the Internet

Overview : Description of the Internet – working and development, Architecture, Internet, Intranet and Extranet, Internet Domain Names and IP addresses.

Connecting LAN to Internet : Protocols, DHCP concepts, DNS, Proxy Server. Internet connectivity methods.

**MAJOR (INCLUDING MINOR-I AND MINOR-II)**

Internet Applications

Overview : Working of email, Advantages of email, Understanding of Internet email addresses.

Telnet to access a remote machine, Telnet commands, Telnet sessions, Search Engine, World Wide Web, HTTP, SMTP, POP, PPP, SLIP and UDP.

FTP

Connection to an Anonymous FTP site using FTP to retrieve a file, common FTP commands.

Web Browser: Internet Explorer, Google Chrome and Firefox.

Recommended Readings :

1. Learning to use the internet by Ernest Ackermann, Franklin, Beedle Associates Inc., 2002.
2. Kris Jony and Ken Cope, Internet Programming, Galgotia Publications.
3. Tannanbaum, A.S. : Computer Networks, Prentice Hall, 1992, 3<sup>rd</sup> Edn.
4. Stallings, William : Local Networks : An Introduction to Macmillan Publishing Co.
5. Stallings, William : Data and Computer Communication Macmillan Publishing Co.
6. Black : Data Networks (PHI) 1988.
7. Forouzon Behrouz: Data Communications, Tata McGraw Hill, 2007.