

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED****Q.1. Answer the following short questions: (10x3=30)**

- i. Explain the concept of consistency in accounting.
- ii. Why assets are depreciated?
- iii. State types of financial statements.
- iv. What is meant by accrued expenses and accrued income?
- v. Define errors of omission and errors of commission.
- vi. What is accounting and what is its need?
- vii. What is matching principle in accounting?
- viii. Define unearned income and prepaid expenses.
- ix. What is meant by cost principle in accounting?
- x. What is going concern assumption with reference to accounting?

**Answers the following questions. (3x10=30)****Q. 2** Ahmad's watch and jewelry repair shop opened on July 1, 2023. During May, the following transactions occurred:

July 1	Ahmad invested Rs. 30,000 cash in his business.
2	Paid rent for the month, Rs.2,000.
4	Purchased supplies for cash, Rs. 2,400.
6	Purchased equipment on credit, Rs. 16,400.
7	Made repairs and received cash, Rs.1,340.
9	Made repairs on credit, Rs. 1,560.
18	Hired an assistant at a monthly salary of Rs. 3,400.
21	Invested an additional Rs.8,800 in the business.
30	Purchased supplies on credit, Rs.1,900.

**Required:** Prepare journal entries for July, post them to the ledger, and prepare a trial balance.**(10)****Q. 3** Zafar, CA, started his practice on July 1, 2023. He completed the following transactions during his first month of operations:

- a) Zafar invested the following in the firm: cash, Rs. 95,400; office supplies, Rs. 24,000; office equipment, Rs. 40,500.
- b) Paid rent for the month, Rs. 2,550.
- c) Purchased a computer for Rs 13,700 on credit.
- d) Purchased a copier for Rs. 28,000, paying Rs. 8,000 down and agreeing to pay the balance in four equal installments.
- e) Performed services for cash, Rs. 31,025.
- f) Zafar wrote business checks for personal electricity bills Rs. 5,500.
- g) Purchased an office supplies for cash, Rs. 2,600.
- h) Performed services on credit, Rs. 21,200.
- i) Paid utilities for the month, Rs. 3,215.
- j) Collected Rs. 21,200 for the services performed in Transaction (h).
- k) Paid for the computer purchased in Transaction (c), Rs 13,700.
- l) Paid salary of employee, Rs. 9,600.
- m) Paid first installment due on the copier purchased in Transaction (d), Rs. 5,000.

**Required:** Record Zafar's transactions for the month of July in accounting equation.**(10)**

**Q. 4** The following is a trial balance of Zahoor Company on December 31, 2023.

<b>Zahoor Company</b>			
<b>Trial Balance</b>			
<b>December 31, 2023</b>			
<b>Account Title</b>	<b>Debit (Rs.)</b>	<b>Credit (Rs.)</b>	
Cash in hand	1,100		
Cash at Bank	5,000		
Accounts Receivable	1,1040		
Office Supplies	3,600		
Store Supplies	4,460		
Prepaid Insurance	7,200		
Land	41,000		
Office Equipment	10,000		
Accumulated Depreciation--- Office Equipment		4,000	
Store Equipment	13,200		
Accumulated Depreciation--- Store Equipment		4,400	
Building	180,000		
Accumulated Depreciation--- Building		18,000	
Accounts Payable		6,080	
Notes Payable		21,600	
Zahoor, Capital		138,600	
Zahoor, Drawing	12,000		
Service Revenue		186,780	
Salaries Expense	39,300		
Rent Expense	36,600		
Bad Debts Expense	4,000		
Advertisement Expense	8,660		
Utilities Expense	6,500		
Provision for doubtful debts		4,200	
<b>Totals</b>	<b>383,660</b>	<b>383,660</b>	

**Adjustment data:**

- Office supplies on hand at December 31,2023, Rs. 1,400.
- Store supplies on hand at December 31,2023, Rs. 2,260.
- On April 1, 2023 the Zahoor Company purchased a one-year insurance policy for Rs. 7,200.
- Salaries Accrued, Rs. 2,900.
- Rent Accrued, Rs. 12,050.
- The provision for doubtful debts to be increased to Rs. 5,000.
- The estimated useful life of office equipment is 5 years, store equipment is 3 years and building is 10 years.

**Required:** Prepare Income Statement, Statement of Owner's Equity and a Balance Sheet for the month ended December 31, 2023.

**(10)**





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**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

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**Q.1. Answer the following short questions: (6x5=30)**

1. Write a note on the structure and function of an eye.
2. Explain attribution theory.
3. Define Monocular and Binocular Cues.
4. Explain any two fields of psychology and their application.
5. Describe any ONE theory of emotions.
6. Write a detailed note on personality development.

**Q.2. Answer the following questions: (3x10=30)**

1. Define operant conditioning. Explain the concept of reinforcement and punishment with an example.
2. Define Intelligence. Write a detailed note on any TWO theories of intelligence.
3. Write a detailed note on endocrine system.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Psychology-II (MAS)

Course Code: APSY-212

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions: (6X5=30)**

- 1. What is the difference between eustress and distress?**
- 2. Explain social cognition.**
- 3. Describe stress and how it affects the overall well-being of an individual.**
- 4. Define abnormal psychology and its role in understanding psychological disorders.**
- 5. What are some common symptoms of depression in abnormal psychology?**
- 6. Explain any THREE defence mechanisms**

**Q.2. Answer the following questions: (3x10=30)**

- 1. Define psychotherapy. Write a detailed note on any TWO approaches to psychotherapy.**
- 2. What is personality? Explain any TWO theories of personality development.**
- 3. Explain the theories of consciousness in detail.**



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions: (6x5=30)**

- 1: What is **social Loafing**? Explain with examples.
- 2: How are **Prejudices and discriminations** formed based on cultures?
- 3: Define and explain the term **Ethnocentrism**?
- 4: How culture influences **Parental practices**? Explain.
- 5: Ethical issues while conducting **cross culture research**?
- 6: Differentiate between **Individualistic** and **Collectivistic Cultures** with examples?

**Answer the following questions. (3x10=30)**

**Q.2:** What are the challenges of defining **culture**? What is the historical background of cultural psychology?

**Q.3:** Define **Identity** and **culture**? What are three kinds of identity? explain with examples.

**Q.4:** Define **development**? What is the role of culture in different levels of development?



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions:**

**(6x5=30)**

1. Describe beneficence and non-maleficence?
2. What is meant by terminating therapy?
3. What is institutional approval for research and publications?
4. What are ethical guidelines for interpreting assessment results?
5. What are the ethical guidelines for reporting research results?
6. What are the ethical guidelines for avoiding harm?

**Q.2. Answers the following questions.**

**(3x10=30)**

1. Write a comprehensive note on boundaries of competence and maintaining competence?
2. What is maintaining confidentiality and what are the limits of confidentiality?
3. Write a detailed note on humane care and use of animals in research?



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions: (6x5=30)**

1. Define **gender-role typing** and explain its importance with an example.
2. What is **Domestic abuse**, explain characteristics of domestic abuse victims.
3. Explain different types of **Sexism** with examples.
4. What is feminism. Explain types of **feminism**.
5. What are the differences between **rape** and other forms of sexual coercion?
6. Define **gender as a social category** and provide one example.

**Q.2. Answers the following questions. (3x10=30)**

1. Compare and contrast the *psychology of women* and *psychology of men* in Pakistan.
2. Discuss the prevalence and psychological impact of **sexual harassment** in Pakistan with examples.
3. Critically analyze the concept of **women empowerment** in Pakistani culture, with examples.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Introduction to Arabic

Course Code: ARAB-111

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

Write the Feminine of the following Words

السؤال الأول : اكتب المؤنث للكلمات التالية

- 1- خرجت ..... 2- أب ..... 3- هو ..... 4- أنت ..... 5- أكلت .....

Translate into Urdu/ English Language

السؤال الثاني : ترجم إلى اللغة الأردية/ الإنجليزية

في الأسبوع الماضي، ذهبتُ مع زوجي و صديقتي إلى القاهرة لثلاثة أيام. نزلنا في غرفتين في فندق صغير هناك. في يوم خرجنا كلنا صباحاً د ذهبنا إلى المتحف المصري في وسط المدينة. بعد ذلك وجدنا مطعماً كبيراً بجانب المتحف. أنا أكلتُ سمكاً لذيذاً من البحر الأحمر، ولكن زوجي أكل الكباب و صديقتي جربت الكشري. في يوم أنا شاهدتُ الفيلم المصري الجديد في السينما مع زوجي. ولكن صديقتي جلست في شرفة غرفتها في الفندق و كتبت خطاباً لأمها في ألمانيا. أخيراً، رجعنا إلى كلنا بيروت مساءً.

Choose the right word

السؤال الثالث : اختر الكلمة الصحيحة :

- 1- سمع ..... لمن حمده ( الله ، الرسول ).
- 2- خرج ..... ( من ، عن ، الى ) القصر الملكي.
- 3- ( هي ، ها ، هو ) ..... ابن الأستاذ.
- 4- حب الوطن من ..... ( الإيمان ، الشعبية ، الحق ).
- 5- ( هذه ، هؤلاء ، هذا ) .. حديقة المنزل
- 6- تلك ( حديقتك ، حديقتك ) ..... يا خديجة
- 7- ( هذا ، هذه ، هؤلاء ) ..... دراجته.
- 8- كتاب ( محمود ، محموداً ، محمود ) ..... جديد
- 9- أبي مهندس ، هذا ( قلمها ، قلمه ، قلمهن ) .....
- 10- الأستاذ في ( غرفة ، غرفة ، غرفة ) ..... المدرسة.

Answer in Arabic Language

السؤال الرابع : اجب باللغة العربية

- 1- من أين أنت؟ .....
- 2- متى ذهبت إلى البنك ؟ .....
- 3- كم الساعة الآن ؟ .....
- 4- أين تجلس الآن ؟ .....
- 5- في أي شهر نحن؟ .....

Write a letter to your brother on the postcard

السؤال الخامس : اكتب رسالة إلى أخيك على البطاقة البريدية

Give Plurals of the following

السؤال السادس : هات الجمع للمفردات التالية

- 1- أنا 2- مسجد 3- وقت 4- مجلس 5- مطعم 6- طبق 7- شيخ 8- بيت 9- ولد 10- قلب





**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

Q.1 Translate of the following into Urdu. (10)

قال رسول الله صلى الله عليه وسلم: "أَلْقِمْ أَصْلِحَ لِي دِينِي الَّذِي هُوَ بَعْضُهُ أَمْرِي وَأَصْلِحَ لِي دُنْيَايَ الَّتِي فِيهَا مَعَايِشِي وَأَصْلِحَ لِي آخِرَتِي الَّتِي إِلَيْهَا مَعَادِي وَأَجْعَلْ الْحَيَاةَ زِيَادَةً لِي فِي كُلِّ خَيْرٍ وَأَجْعَلْ الْمَوْتَ رَاحَةً لِي مِنْ كُلِّ شَرٍّ."

Q.2 Translate into Urdu. (10)

والولد الصغير	والرجل الكبير	نَشَقِشَقُ الطَّيْرُ	فَرَحَانَةٌ بِالْوَرْدِ
يقول في سرور	ما أجمل الضياء	تَقُولُ فِي سُرُورٍ	مَا أَجْمَلُ الضِّيَاءِ
ما أجمل الضياء	يشرق بالبحار	والجودل الصغير	ما أجمل الضياء
في الأرض والسماء	ما أجمل الضياء	تَقُولُ فِي سُرُورٍ	مَا أَجْمَلُ الضِّيَاءِ

Q.3 Answer the following Questions. (10)

١- ماذا تأكل في الصباح؟ ٢- ما بديلها؟ ٣- أين أخوك؟ ٤- ما تذاق؟ ٥- أين الأستاذ؟

Q.4 Arrange the words to make sentences. (10)

١- ذلك - الطالب - كتاب ٢- جدار - ذللاً - المدرسة ٣- عيد - يوم - هذا ٤- العلم - اخضر - لون ٥- هذا - واسع - منزل ٦- جدير - ذللاً - قلم ٧- حديقة - جميلة - المدرسة ٨- الطحاك - محمود - يأكل ٩- السقف - تحت - مروحة ١٠- صورة - البنت - عند

Q.5 Write feminine of the given Masculines. (10)

ابن - جَدَّ - جَلَّ - رجل - صالِمٌ - هو - خال - طفل - ثور - حصان

Q.6 Translate into Arabic. (10)

١- یہ ایک محنتی شاگرد ہے۔ ٢- لڑکی نے پانی پیا۔ ٣- مسجد میں کون داخل ہوا؟ ٤- مہمان نے کھانا کھایا۔ ٥- زید نے خط لکھا۔



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

سوال نمبر 1۔ درج ذیل سوالات کے مختصر جوابات دیں۔ (6x5=30)

- ۱- من هم الشعراء المخضرمون؟
- ۲- من هو الأفضل في الإسلام، الخطيب أو الشاعر؟
- ۳- كيف نفرّق بين الربح والتجارة؟
- ۴- من الجاحظ؟ وماذا تعرف عنه؟
- ۵- اكتب أسماء الشخصيات التي تدور حولهم المسرحية "عرف كيف يموت"
- ۶- ما هي الأشياء الخمسة التي ذكرها سيدنا علي بن أبي طالب رضي الله عنه في خطبته؟

سوال نمبر 2۔ درج ذیل میں سے کسی ایک عنوان پر مکالمہ لکھیں۔ (10)

في المكتبة - في سيارة أجرة

سوال نمبر 3۔ درج ذیل میں سے کسی دو کا اردو ترجمہ لکھیں۔ (2x5=10)

- |     |  |  |
|-----|--|--|
| (أ) | وَكَايْنِ قَرَى مِنْ صَامِتٍ لَكَ مُعْجِبٍ | زِيَادَتُهُ أَوْ نَقْصُهُ فِي التَّكَلُّمِ     |
| (ب) | أَعْيَيْ جُودًا وَلَا تَجْمُدَا            | وَأَنَّ الْفَقْرَ بَعْدَ السَّفَاهَةِ يَحْلُمُ |
| (ج) | وَأَحْسَنُ مِنْكَ لَمْ تَرَ قَطُّ عَيْبِي  | أَلَا تَبْكِيَانِ الْفَقْرَ السَّيِّدَا        |
|     | خَلَقْتُ مَبْرَأً مِنْ كُلِّ عَيْبٍ        | وَأَجْمَلُ مِنْكَ لَمْ تَلِدِ النِّسَاءُ       |
|     |  | كَانَكَ قَدْ خَلَقْتَ كَمَا تَشَاءُ            |

سوال نمبر 4۔ درج ذیل میں سے کسی ایک عنوان پر تفصیلی نوٹ لکھیں۔ (10)

الجملة الاسمية      يا      اسم الفاعل



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Financial Accounting (Advanced)

Course Code: BBA-205

Roll No. ....

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. Answer the following short questions. (10x3=30)

- Explain The Statement of Owner's Equity
- What is Weighted average method for inventory and for what purpose it is used?
- What is a bank reconciliation statement?
- What is the purpose of closing entries?
- Elaborate matching principle in accounting.
- What is the cost principle in accounting?
- Explain the concept of conservatism in accounting.
- Differentiate between permanent and temporary accounts.
- Why are adjusting entries necessary?
- What is the first step in the accounting cycle?

Answer the following long questions. (3x10=30)

### Question No. 02

The following are the account balances of Ahmad Visa Consultancy on December 31, 2023:

Account Title	Balance (Rs.)
Cash	6,750
Accounts Receivable	4,500
Supplies	2,550
Prepaid Insurance	2,775
Equipment	57,000
Accumulated Depreciation—Equipment	18,000
Accounts Payable	15,900
Ahmad's Capital	53,400
Ahmad's Drawing	22,500
Fees Earned	136,500
Rent Expense	10,800
Salaries Expense	113,100
Utilities Expense	3,255
Maintenance Expense	825
Provision for doubtful debts	255

### Adjustment data:

- A physical count reveals Rs. 1,350 of supplies on hand.
- Insurance expired, Rs. 1,800.
- Depreciation of equipment is Rs. 3,900 per year.
- Accrued Salaries are Rs. 1,500.
- The provision for doubtful debts to be increased to Rs. 450.

### Required:

Prepare Income Statement, Statement of Owner's Equity and Balance Sheet for the year ended December 31, 2023. (10 Marks)

**Question No. 03**

A care house bought four motor vehicles costing Rs. 120,000 each on 1<sup>st</sup> May 2008. They expected to fetch a scrap value of 25% of the cost price of the vehicle after 10 years. They depreciated the vehicles under the Straight line method up to 31 December 2010. With effect from 1st January 2011, he decided to introduce the diminishing balance method of depreciation @ 20% p.a instead of the Straight line. Moreover, care house had sold one of the vehicles at Rs. 70,000 on 31st December 2010.

**Requirement:** Calculate the depreciation expense of four vehicles and book value for the years 2008, 2009, 2010, and 2011 assuming that the accounting period starts from January.

(10 Marks)

**Question No. 04**

The accountant of Zeeshan Company assembled the following data as of April 30, 2024:

1. The April bank statement showed a closing balance of Rs. 51,600.
2. The depositor's record showed a balance of on April 30 of Rs. 32,520.
3. Deposit in transit amounted to Rs.3800.
4. The three cheques were outstanding cheques as follow:

Cheque #	Amount
3256	Rs. 4,000
3265	5,080
3267	3,560

5. Bank had charged a Rs.300 cheque written by Zaheer Lawn Service to the account of Zeeshan Company.
6. Bank collected a Rs. 12,000 note for Zeeshan, charging a Rs.60 collection fee.
7. A Rs. 1,400 cheque that Zeeshan had deposited was returned by the bank because it is a bad (NSF) cheque.

**Requirement:** Prepare a bank Reconciliation statement of Zeeshan Company.

(10 Marks)



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (15x2=30)**

- i. Define voidable contract.
- ii. Define bilateral promise.
- iii. What do you mean by competency of a party to contract?
- iv. Define the term fraud.
- v. Define the term quasi contract.
- vi. What do you understand by guarantee?
- vii. Define agreement to sell and a sale.
- viii. Define the term condition and warranty.
- ix. What do you mean by hire purchase agreement?
- x. Define firm?
- xi. Who is secret partner?
- xii. What is the position of minor in a partnership?
- xiii. Define common carrier.
- xiv. Define cheque?
- xv. Who is a banker?

**Q.2. Answer the following questions (3x10=30)**

- i. Who is competent to contract? Explain the position of a minor in a contract.
- ii. Briefly explain the difference between fraud and misrepresentation?
- iii. What is the difference between condition and warranty?



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(15x2=30)**

- i. Define valid contract.
- ii. Define unilateral promise.
- iii. Define the term invitation to offer?
- iv. Define the term coercion.
- v. Define the term damages.
- vi. What do you understand by pledge?
- vii. Define the term goods.
- viii. Define the term caveat emptor.
- ix. What do you mean by delivery of goods?
- x. Define firm and partner?
- xi. Who is sleeping partner?
- xii. What is the position of minor in a partnership?
- xiii. What do you understand carriage by sea?
- xiv. Define bill of exchange?
- xv. Who is a bearer?

**Q.2. Answer the following questions**

**(3x10=30)**

- i. What are the essentials of a valid contract?
- ii. Briefly explain the contract of agency. What are the duties of an agent?
- iii. What is the difference between agreement to sell and a contract of sale?





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Money and Banking

Course Code: BBA-207

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- I. What is Cash Balance Theory?
- II. What is Open Market Operation?
- III. Define Proportionate Reserve System?
- IV. What is meant by non-performing loans?
- V. What is Trade Cycle?
- VI. Explain Unsecured advances?

**Answer the following questions (3x10=30)**

**Q.No.2:** Differentiate between, Inflation, Deflation, Reflation and Stagflation.

**Q.No.3:** Define Monetary Policy and explain in detail its tool.

**Q.No.4:** What are different types of Deposits received by a Bank? Explain in detail.



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- i. What is the difference between a keyword and an identifier in VB?
- ii. What is the difference between a Function and a Sub Procedure in VB?
- iii. How do you declare and initialize an array in VB?
- iv. Explain the concept of inheritance in VB. What is the purpose of the Inherits keyword?
- v. Given the following code, what will be the output?

```
Dim x As Integer = 10
Dim y As Integer = 5
Dim z As Integer = x + y
Console.WriteLine(z)
```

- vi. Given the following code, what will be the output?

```
Dim x As Integer = 10
Dim y As Integer = 5
If x > y Then
    x += 1
Else
    y += 1
End If
Console.WriteLine(x & " " & y)
```

**Answer the following questions**

**(3x10=30)**

**Question 2.** Write a Visual Basic program that reverses an array of integers. The program should output the reversed array.

Example: Input: {1, 2, 3, 4, 5}

Output: {5, 4, 3, 2, 1}

**Question 3.** Write a Visual Basic program that calculates the circumference of a circle given its radius  $r$ . Use the formula:  $\text{Circumference} = 2 \times \pi \times r$

**Question 4.** Write a recursive function **myfactorial** that calculates the factorial of a given number  $n$ .



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Business Law

Course Code: BLAW-111

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- i. Briefly explain the implied conditions in a contract of sale of goods?
- ii. Define contract of agency. What are the rights of agent under this contract?
- iii. Discuss the procedure of termination of employment?
- iv. 'All cheques are bills while all bills are not cheques'. Discuss?
- v. Briefly describe the discharge of contract by mutual agreement?
- vi. What are the main rules regarding health and safety of factory workers?

**Q.2. Answer the following questions**

**(3x10=30)**

- i. Elaborate the consequences of the dissolution of partnership firm and settlement of accounts?
- ii. Define breach of contract? Discuss the remedies available to an aggrieved party upon breach of contract?
- iii. Discuss in detail the contracts which are valid even without consideration?



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Botany-IV (Plant Physiology and Ecology) Course Code: BOT-203

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (15x2=30)**

- i. How is the energy released and stored during oxidation of compounds in respiration?
- ii. What is the product of Aerobic glycolysis in skeletal muscle?
- iii. What are effects of drought on plants?
- iv. How can we break seed dormancy?
- v. Define phytochromes.
- vi. What is role of Auxins?
- vii. Define water potential.
- viii. What are roles of Nitrogen and Sulfur in plant growth.
- ix. What is importance of soil organic matter.
- x. What is difference of gravitational and capillary water.
- xi. What are adaptation of Heliophytes.
- xii. What is source of water in water cycle.
- xiii. Define soil profile.
- xiv. What are ecophysiological response.
- xv. Define percolation.

**Answer the following questions (3x10=30)**

- Q.2. Define dormancy. What are its types.**
- Q.3. Write a detailed note on physical properties of soil.**
- Q.4. What are analytic characteristics of plant community.**



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Plant Physiology and Ecology

Course Code: BOT-203A

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(5x6=30)**

- a) What are three pathways of water transport within root.
- b) What is difference between Hormones & Vitamins
- c) Differentiate between Chlorosis & Necrosis.
- d) What is maximum yield of cytosolic ATP from complete oxidation of sucrose to CO<sub>2</sub> via aerobic glycolysis and the citric acid cycle.
- e) Give the Braun Blanquet vitality classes.

**Answer the following questions**

**(3x10=30)**

**Q No.2. Discuss Glycolysis and its end products.**

**Q No.3. Draw detailed Z-Scheme of photosynthesis.**

**Q No.4. a) How can we break Dormancy.**

**b) Morphological adaptations of submerged Hydrophytes**



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Plant Physiology and Ecology

Course Code: BOT-207

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(5x6=30)**

- a) What are three pathways of water transport within root.
- b) What is difference between Hormones & Vitamins
- c) Differentiate between Chlorosis & Necrosis.
- d) What is maximum yield of cytosolic ATP from complete oxidation of sucrose to  $\text{CO}_2$  via aerobic glycolysis and the citric acid cycle.
- e) Give the Braun Blanquet vitality classes.

**Answer the following questions**

**(3x10=30)**

**Q No.2. Discuss Glycolysis and its end products.**

**Q No.3. Draw detailed Z-Scheme of photosynthesis.**

**Q No.4. a) How can we break Dormancy.**

**b) Morphological adaptations of submerged Hydrophytes**





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Biodiversity and Conservation

Course Code: BOT-208

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (5x6=30)**

- I. What are invasive, alien and native species give at least one example of each type.
- II. Differentiate between extinct and extant species.
- III. What is the National conservation strategy of Pakistan? Explain.
- IV. What are IUCN threatened species categories?
- V. How species become threatened?

**Answer the following questions (3x10=30)**

- Q. 2. a) Explain the theory of mass extinction  
b) What should be Public awareness strategies for conservation of different species?
- Q. 3. a) Explain the role of following in conservation of biodiversity.  
a) Museum  
b) Arboretum  
c) Herbarium  
d) Zoos  
e) Botanical gardens
- Q.4. Explain Species invasion, its major types and how do they compete for local resources.



### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Answer the following short questions.**

**(6x5=30)**

1. Difference between population and sample?
2. What are the advantages of statistics in biological research?
3. Write down 05 characters of ANOVA test.
4. Explain types of data with examples?
5. Describe the binomial distribution and its key characteristics.
6. Differentiate between Null and alternative hypothesis. How can we accept or reject the null hypothesis?

**Q.2. Answer the following questions**

**(3x10=30)**

1. Discuss principles of experimental design. Explain the differences between replication and randomization. Explain the concept of random sampling and why it is important in research.
2. The Impact of Different Fertilizers on Plant Growth is shown. What is the continuous variable in data? What is the categorical variable in data? Calculate the Range, Variance, Standard deviation, Standard Error of fertilizer A and B.

Plant ID	Fertilizer Type	Week 1	Week 2	Week 3	Week 4
Sunflower 1	A	15.2	17.5	19.1	20.6
Sunflower 2	B	12.9	14.5	16	17.4
Sunflower 3	C	10.6	12.1	13.9	15.5

3. Data shows effects of various treatments on plant heights. Calculate the Range, Variance, Standard deviation, Standard Error, Coefficient of variance for Treatment C and Treatment D.

	Plant height (cm)	Plant height (cm)	Plant height (cm)	Plant height (cm)
Treatment A: CO2 concentration	12	15	14	18
Treatment B: Light intensity	11	14	13	17
Treatment C: Wind velocity	13	16	15	19
Treatment D: Altitude	12	15	14	18



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

(5x6=30)

سوال نمبر 1: مندرجہ ذیل سوالات کے مختصر جوابات تحریر کریں۔

- (1) استخدم/استخدمی الضمائر المتصلة مضافة إلى كلمة "أم" . ("أم" کے لفظ کے ساتھ ضمیر متصل کو مضاف الیہ بناتے ہوئے ساری ضمائر لکھیں۔)
- (2) عرف/عرّی بـ "الفعل اللازم والمتعدي" ووضحهما بالأمثلة. (فعل لازم اور فعل متعدی کی تعریف کریں اور مثالوں سے سمجھائیں۔)
- (3) عرف/عرّی بـ "التمييز" مع ذكر الأمثلة. (تمييز کی تعریف کریں اور مثالوں سے وضاحت کریں)
- (4) اكتب/اكتبي العدد العربي من 3 إلى 9 مع المعداد المذكور. (مذکر معداد کے ساتھ 3 سے 9 تک عربی نمبری لکھیں۔)
- (5) سلّط/سلّطي الضوء على المركب الإضافي مع ذكر الأمثلة . (مركب اضافی کی وضاحت کریں اور مثالوں سے سمجھائیں۔)

(3x10=30)

مندرجہ ذیل سوالات کے جوابات تحریر کریں۔

- Q.2: اذكر/اذكري الأفعال الناقصة كلّها وأثرها الإعرابي في الجملة مع ذكر الأمثلة بالتفصيل. (أفعال ناقصة لکھیں اور ان کا جملے پر جو اعرابی اثر ہوتا ہے اس کو تفصیل سے مثالوں میں واضح کریں)
- Q.3: اكتب/اكتبي الحروف المشبهة بالفعل مع بيان المعنى لكل كلمة منها، وكذلك وضح/وضّحي عمل تلك الحروف على الجملة مع إيراد الأمثلة بالتفصيل۔ (حروف مشبہ بالفعل کون سے ہیں؟ ان کے معانی لکھیں، اور ان کا اعرابی اثر تفصیل سے مثالوں میں واضح کریں)
- Q.4: عرف/عرّی المركب التوصيفي مع ذكر شروط المراعاة فيه، ووضحه بالأمثلة. (مركب توصيفی کی تعریف کریں اور ان شرائط کا ذکر کریں جن کی اس مركب میں رعایت رکھی جاتی ہے، اور مثالوں سے واضح کریں)



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

**السؤال الأول : إملأ / املئ الفراغ مما بين القوسين. (5)**

1. \_\_\_\_\_ تقضي أيام العيد ؟ ( أين ، ماذا )
2. \_\_\_\_\_ تقضي العطلة ؟ ( هل ، كيف )
3. \_\_\_\_\_ العطلة ؟ ( متى ، هل )
4. \_\_\_\_\_ فعلت في الميقات ؟ ( ماذا ، أين )
5. \_\_\_\_\_ شوطاً طفت ؟ ( لماذا ، كم )

**السؤال الثاني : ضع / ضعي علامة ( x ) على الكلمة الغريبة . (5)**

1. يعتمر - يصوم - يقرأ - يطوف -
2. كشمير - اندونيسيا - خطوط - السعودية
3. طائرة - فندق - مطار - مسافر -
4. شمال - جنوب - شرق - سوق -
5. يفقد - يطوف - يسعى - يلبي -

**السؤال الثالث : إملأ / املئ الفراغ بالحرف المناسب . (5)**

( من ، في ، عن ، إلى ، ب )

1. المدينة بعيدة \_\_\_\_\_ البيت.
2. أذهب الى العمل \_\_\_\_\_ السيارة -
3. أدرس ست حصص \_\_\_\_\_ اليوم.
4. أذهب \_\_\_\_\_ المكتبة الآن -
5. استيقظت \_\_\_\_\_ النوم مبكراً.

**السؤال الرابع : رتب / رتبي الكلمات لتصبح جملة. (5)**

1. بصداع - أشعر - شديد -
2. هذا - التقرير - هو - الطبي -
3. الآن - تشعر - بم ؟
4. الطبيب - لزيارة - حضرت -
5. المستشفى - الى - حضرت - لماذا ؟

**السؤال الخامس : صل / صلي بين المفرد و جمعه (5)**

المفرد	الجمع
مجلس	بقرات
امر	سرر
باب	مجالس
بقرة	أمور
سرير	أبواب

**السؤال السادس: صل / صلي الكلمتين المتضادتين - (5)**

1. الموت - الخباياثات
2. صغار - أسواء
3. أحسن - الحياة
4. الطيبات - كبار
5. فائدة - ضرر

**السؤال السابع : إقرأ / إقرني الفقرة ثم أجب / أجيب عن الأسئلة التالية. (10)**

طاف أحمد حول الكعبة سبعة اشواط، صلى ركعتين خلف مقام ابراهيم ، ثم سعى بين الصفا و المروة سبعة اشواط، ثم حلق راسه ، و ذهب الى الفندق، و خلع ثوب الاحرام. بعد العمرة سافر أحمد الى بلده . و بعد عام ؛ سيحضر أحمد مع أسرته للحج و العمرة، ان شاء الله . (الجزء الاول، ص ٣٢١)

1. ماذا فعل أحمد بعد الطواف ؟

2. اين صلى بعد الطواف ؟

3. ماذا فعل بين الصفا و المروة ؟

4. ماذا فعل بعد السعي ؟

5. متى سيحضر للحج ؟

**السؤال الثامن: ترجم / ترجمي الجمل الآتية إلى اللغة الأربية. (10)**

صالح يقضى عطلة رمضان في مكة و المدينة . في مكة يسكن في فندق قريب من المسجد الحرام . يذهب صالح مع أسرته الى المسجد قبل صلاة العصر ، و يصلي المغرب و العشاء . صالح يتناول الفطور في المسجد، لا يأكل كثيرا؛ يتناول التمر و الماء و القهوة. في المدينة يقيم صالح في شقة بعيدة عن المسجد النبوي، و يذهب مع أسرته إلى المسجد النبوي قبل صلاة المغرب ، و يبقى الى صلاة العشاء ، و يصلي العشاء ، ثم يذهب الى الشقة بالحافلة.

**السؤال التاسع : أجب / أجيب عن الأسئلة التالية. (10)**

الاسئلة	الأجوبة
1. ما جنسيتك ؟	
2. هل تحب السفر ؟	
3. كم تستغرق الرحلة الى جدة ؟	
4. ماذا في حقيبتك ؟	
5. هل تقيم في فندق ؟	



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

سوال 1: مندرجہ ذیل ابیات کا اردو ترجمہ و تشریح لکھیے۔ (15)

تا عہد تو در بستم عہد ہمہ بشکستم	بعد از تو روا باشد نقض ہمہ پیمان ها
تا خار غم عشقت آویختہ در دامن	کو تہ نظری باشد رفتن بہ گلستان ها
آن را کہ چنین دردی از پای در اندازد	باید کہ فرو شوید دست از ہمہ درمان ها

سوال 2: مندرجہ ذیل ابیات کا اردو ترجمہ و تشریح لکھیے۔ (15)

کہ ای بلند نظر شاہباز سیدرہ نشین	نشیم تو نہ این گنج محنت آباد ست
تو را ز کنگرہ عرش می زنند صفیر	ندانمت کہ در این دامگہ چہ افتاد ست
نصیحتی کفایت یاد گیر و در عمل آر	کہ این حدیث، ز پیر طریقت یاد ست

سوال 3: مندرجہ ذیل ابیات کا اردو ترجمہ و تشریح لکھیے۔ (15)

فطرت او آتش اندوزد ز عشق	عالم افروزی بیاموزد ز عشق
عشق را از تیغ و خنجر پاک نیست	اصل عشق از آب و باد و خاک نیست
در جہان ہم صلح و ہم پیکار عشق	آب حیوان تیغ جوہر دار عشق

سوال 4: عراقی یا مولانا جلال الدین رومی کی شاعری کا جائزہ لیجئے۔ (15)





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Oriental Literature

Course Code: BSAR-207

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

15x2=30	السؤال الأول	أجب عن الأسئلة التالية بالإيجاز (مدرجہ ذیل سوالات کا مختصر جواب دیں):
		1. عربی ادب کے "عصر حدیث" کا آغاز کب ہوا؟ 2. "ادب الکاتب" کا مصنف کون ہے؟
		3. المتنبی کس دور کا شاعر ہے؟ 4. "البین والقیسین" کا مصنف کون ہے؟
		5. طہ حسین کی کسی ایک کتاب کا نام لکھیں۔ 6. ابراہیم ذوق کہاں پیدا ہوئے؟
		7. معصی کس دبستان کے نمائندہ شاعر ہیں؟ 8. وارث شاہ کی وجہ شہرت کون سا قصہ ہے؟
		9. سیف الملوک کس شاعر کی کتاب ہے؟ 10. سکھ مت کے بانی کون تھے؟
		11. قرآن مجید کا پہلا ترجمہ برصغیر میں کس زبان میں ہوا؟ 12. رحمان بابا کس زبان کے شاعر تھے؟
		13. پیر نور الدین کس زبان کے شاعر تھے؟ 14. "سندری" ناول کس زبان میں ہے؟
		15. معاملہ بندی کس دبستان ادب کی خصوصیات میں سے ہے؟
(2x15=30)	السؤال الثاني	أجب عن سؤاين من الأسئلة التالية بالتفصيل (مدرجہ ذیل سوالات میں سے دو کا مفصل جواب دیں):
		1- خنساء (تماضر بنت عمرو) (رضی اللہ عنہا) کی شخصیت اور شاعری پر نوٹ لکھیں۔
		2- دبستان دہلی کی شاعری کی کوئی سی پانچ خصوصیات پر تفصیلاً روشنی ڈالیں۔
		3- قرآن مجید ایک مجرمانہ کلام ہے، قرآن حکیم کے اسلوب و اعمال کی روشنی میں وضاحت کریں۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Mass Communication

Course Code: BSCS-111

Time: 3 Hrs.

Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

Q 1. Answer the following short questions.

(6x5=30)

سوال نمبر 1: درج ذیل سوالوں کے مختصر جواب دیں۔

- 1 Discuss the effects of Mass Media on society.  
1: معاشرہ پر ماس میڈیا کے اثرات بیان کریں۔
- 2 Write down the types of Communication.  
2: ابلاغ کی اقسام تحریر کریں۔
- 3 Simple Communication makes the Communication more effective. Justify in brief.  
3: سادہ ابلاغ سے ابلاغ کو مزید موثر بنایا جاسکتا ہے۔ دلائل سے واضح کریں۔
- 4 Explain agenda setting and it's role in Mass Media.  
4: ایجنڈہ سٹینگ اور اس کے کردار کو ماس میڈیا کے تناظر میں واضح کریں۔
- 5 What do you know about the process of Communication? Discuss in your words.  
5: ابلاغ کے عمل کے بارے میں آپ کیا جانتے ہیں۔ اپنے الفاظ میں بیان کریں۔
- 6 Define the term "Telecast".  
6: ٹیلی کاسٹ کی تعریف کریں۔

Q 2. Answer the following questions.

(3x10=30)

سوال نمبر 2: مندرجہ ذیل سوالوں کے جواب دیں۔

- 1 Discuss the role of newspaper in society.  
1: اخبار کا معاشرہ میں کردار واضح کریں۔
- 2 Write a detail note on "Broadcast Media".  
2: براڈکاسٹ میڈیا پر تفصیلی نوٹ لکھیں۔
- 3 Discuss the difference between Communication and Mass Communication in your words.  
3: ابلاغ اور ابلاغ عامہ میں فرق کو اپنے الفاظ میں واضح کریں۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Mass Media in Pakistan

Course Code: BSCS-202

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Briefly explain the following:**

**(6x5=30)**

سوال نمبر 1: درج ذیل سوالات کے مختصر جواب تحریر کریں۔

- How has the rise of online news portals affected traditional newspapers in Pakistan?  
(الف) آن لائن نیوز پورٹلز کے عروج نے پاکستان میں روایتی اخبارات کو کس طرح متاثر کیا ہے؟
- How does media ownership influence the content and bias of news in Pakistan?  
(ب) میڈیا کی ملکیت پاکستان میں خبروں کے مواد اور تعصب کو کیسے متاثر کرتی ہے؟
- What are the major challenges faced by Journalists and media outlets in Pakistan?  
(ج) پاکستان میں صحافیوں اور میڈیا اداروں کو کون سے بڑے چیلنجز کا سامنا ہے؟
- What are the reasons of popularity of FM radio channels in Pakistan?  
(د) پاکستان میں ایف (FM) ریڈیو چینلز کی مقبولیت کی وجوہات کیا ہیں؟
- Discuss the future prospects of online journalism in Pakistan.  
(ه) پاکستان میں آن لائن صحافت کے مستقبل کے امکانات پر تبادلہ خیال کریں۔
- Briefly discuss the role of Muslim Press in Pakistan Movement.  
(و) تحریک پاکستان میں مسلم پریس کے کردار پر مختصر گفتگو کریں۔

**Q.2. Answer the following questions**

**(3x10=30)**

سوال نمبر 2: درج ذیل سوالات کے تفصیلی جواب تحریر کریں۔

- How does the Pakistani Government regulate and censor media contents? Elaborate with examples.  
(الف) پاکستانی حکومت میڈیا کے مواد کو کیسے ریگولیٹ اور سنسر کرتی ہے؟ مثالوں کے ساتھ وضاحت کریں۔
- Discuss the impact of social media on traditional media outlets in Pakistan.  
(ب) پاکستان میں روایتی ذرائع ابلاغ پر سوشل میڈیا کے اثرات پر تبادلہ خیال کریں۔
- Write a comprehensive note on the establishment of PEMRA and its salient features.  
(ج) پیمر ا کے قیام اور اس کی نمایاں خصوصیات پر ایک جامع نوٹ لکھیں۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Research and Criticism : Basic Concepts

Course Code: BSU-206

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

(6x5=30)

سوال نمبر 1: مندرجہ ذیل سوالات کے مختصر جواب تحریر کریں۔

- 1- تحقیق کیا ہے۔ وضاحت کریں
- 2- تحقیق کی کوئی سی دو اقسام پر نوٹ لکھیے۔
- 3- ادبی تنقید سے کیا مراد ہے۔ وضاحتی نوٹ لکھیے۔
- 4- تنقید کے عمرانی دبستان پر مختصر نوٹ لکھیے۔
- 5- تنقید و تخلیق کے باہمی رشتے پر اظہار خیال کیجیے۔
- 6- سوانحی تحقیق سے کیا مراد ہے وضاحت کیجیے۔

(3x10=30)

سوال نمبر 2: مندرجہ ذیل سوالات کے تفصیلی جواب تحریر کریں۔

- 1- اردو تحقیق کی روایت میں رشید حسن خان کے مقام و مرتبہ کا تعین کیجیے۔
- 2- اردو تنقید میں احتشام حسین کی خدمات پر روشنی ڈالیے۔
- 3- عمدہ تنقید کے لیے تحقیق کیوں لازم ہے۔ دلائل سے بیان کیجیے۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Writing and composition Practical Learning Course Code: BSU-207

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

سوال نمبر 1: مندرجہ ذیل سوالات کے مختصر جواب تحریر کریں۔ (6x5=30)

- (الف) اردو مضمون نویسی کے آغاز میں 'تہذیب الاخلاق' اور سر سید احمد خان کی کیا خدمات ہیں؟
- (ب) اردو میں انشائیہ نگاری کی ابتداء پر اختصار سے روشنی ڈالئے۔
- (ج) اردو کے چند ایک ممتاز اور نمایاں 'ریورٹاژ' کے نام مع مصنفین لکھئے۔
- (د) تبصرہ نگاری کے دوران کن امور کو پیش نظر رکھنا چاہیئے؟
- (ه) ترجمہ کرنے کے چند ایک بنیادی اصول تحریر کریں۔
- (و) درخواست نویسی کے بنیادی اصول تحریر کیجئے۔

سوال نمبر 2: مندرجہ ذیل سوالات کے تفصیلی جواب تحریر کریں۔ (3x10=30)

- (الف) اردو میں انشائیہ نگاری کی روایت پر اظہارِ خیال کیجئے۔
- (ب) مضمون نویسی کے بنیادی اصول کیا ہیں؟ اسے کتنی اقسام میں تقسیم کیا جاسکتا ہے؟ مفصل اظہارِ خیال کیجئے۔
- (ج) پاکستان میں رائج مختلف نظام ہائے تعلیم کے موضوع پر دو دوستوں کے مابین مکالمہ تحریر کیجئے۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Literary Terms

Course Code: BSU-208

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

(6x5=30)

سوال نمبر 1: مندرجہ ذیل سوالات کے مختصر جواب تحریر کریں۔

۱. اصطلاح کسے کہتے ہیں؟
۲. متن میں ابہام سے کیا مراد ہے؟
۳. ادبی اصطلاح ”خیال آفرینی“ کا مفہوم مختصر بیان کیجئے۔
۴. ”سہل متنوع“ کی وضاحت مثالوں کی مدد سے کیجئے۔
۵. ”روح عصر“ سے کیا مراد ہے؟
۶. نزگیت کے معنی و مفہوم پر روشنی ڈالیں۔

(3x10=30)

سوال نمبر 2: مندرجہ ذیل سوالات کے تفصیلی جواب تحریر کریں۔

۱. درج ذیل ادبی اصطلاحات پر جامع نوٹ لکھیں۔  
☆ فصاحت ☆ بلاغت
۲. ”علامتیت“ پر مفصل نوٹ قلمبند کیجئے۔
۳. ادبی اصطلاح ”آفاقیت“ پر تفصیل سے بحث کیجئے۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Prose Genres: Introduction and Understanding

Course Code: BSU-209

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

(6x5=30)

سوال نمبر 1: مندرجہ ذیل سوالات کے مختصر جواب تحریر کریں۔

- 1۔ ڈپٹی نذیر احمد کے ناولوں کے نام لکھیں۔
- 2۔ سعادت حسن منٹو کے افسانہ "نیا قانون" کا مرکزی خیال کیا ہے؟
- 3۔ "انارکلی" کے مرکزی کرداروں کا تعارف پیش کریں۔
- 4۔ "پرمیٹرنگھ" کے موضوع پر مختصر نوٹ لکھیں۔
- 5۔ داستان کسے کہتے ہیں؟ چار داستانوں کے نام لکھیں۔
- 6۔ "باغ و بہار" کا ماخذ کیا ہے؟

(3x10=30)

سوال نمبر 2: مندرجہ ذیل سوالات کے تفصیلی جواب تحریر کریں۔

- 1۔ انتظار حسین کے ہاں علامت نگاری پہ بات کرتے ہوئے "زرد کتا" کا تجزیہ پیش کریں۔
- 2۔ غلام عباس کی افسانہ نگاری کی خصوصیات تحریر کریں۔
- 3۔ خواجہ معین الدین کی ڈراما نگاری کا تنقیدی تجزیہ پیش کریں اور شامل نصاب حصے پر نوٹ لکھیں۔





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Styles of Urdu Prose Humor Travelogue Autobiography Course Code: BSU-210

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

مندرجہ ذیل اقتباس کی تشریح مع حوالہ متن و سیاق و سباق کیجیے۔ (15)

لیکن جو احباب ان کی طبیعت کے اتار چڑھاؤ سے واقف ہیں وہ جانتے ہیں کہ ان کے یہ غم ابدی اور آفاقی ہوتے ہیں جن کا سگریٹ تو درکنار حقے سے بھی علاج نہیں ہو سکتا۔ میں نے اکثر انہیں اس غم میں سگریٹ کے کش پر کش لگاتے دیکھا ہے کہ سوئی گیس کا ذخیرہ سو سال میں ختم ہو گیا تو ان کی اپنی ملازمت کا کیا ہوگا؟ یا ایک لاکھ سال بعد انسان کے سر پر بال نہ ہوں تو حجاموں اور سکھوں کا کیا حشر ہوگا؟

(3x5=15)

مندرجہ ذیل سوالات پر مختصر نوٹ لکھیں۔

- ۱۔ اسلوب سے کیا مراد ہے؟
- ۲۔ مرزا فرحت اللہ بیگ کے اسلوب تحریر پر روشنی ڈالے۔
- ۳۔ سوانح عمری کی تعریف لکھیں نیز کوئی سی تین اہم سوانح عمریوں کے نام بھی تحریر کیجئے۔

(3x10=30)

درج ذیل سوالات کے مفصل جوابات تحریر کریں۔

- ۱۔ سرسید کی سادہ بیانی پر مفصل نوٹ لکھیے۔
- ۲۔ پطرس بخاری کے فن مزاح نگاری پر جامع نوٹ لکھیں۔
- ۳۔ "یادگار غالب" کو پیش نظر رکھتے ہوئے حالی کے اسلوب نگارش پر بحث کیجئے۔



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

(15)

سوال نمبر 1: مندرجہ ذیل اقتباس کی تشریح مع حوالہ متن و سیاق و سباق کیجئے۔

سات مہینے تک سگریٹ اور سوسائٹی سے اجتناب کیا۔ لیکن خدا بڑا مسبب الاسباب ہے۔ آخر ایک دن جب وہ وعظ سن کر خوش خوش گھر لوٹ رہے تھے تو انہیں بس میں ایک سگریٹ لائٹر پڑا مل گیا۔ چنانچہ پہلے ہی بس اسٹاپ پر اتر پڑے اور لپک کر گولڈ فلیک سگریٹ کا ڈبا خریدا (ہمیں اس واقعے پر قطعاً تعجب نہیں ہوا۔ اس لیے کہ گزشتہ کرسمس پر انہیں کہیں سے نائلون کے موزے چار آنے رعایت سے مل گئے تھے جن کو ”میچ“ کر لینے کے لیے انہیں ایک دوست سے قرض لے کر پورا سوٹ سلوانا پڑا) سگریٹ اپنے جلتے ہوئے ہونٹوں میں دبا کر لائٹر جلانا چاہا تو معلوم ہوا کہ اندر کے تمام پرزے غائب ہیں۔ اب ماچس خریدنے کے علاوہ کوئی چارہ نہ رہا۔

(15)

سوال نمبر 2: مندرجہ ذیل سوالات پر مختصر نوٹ لکھیں۔

- ۱۔ پطرس بخاری کے اسلوب کے نمایاں خصائص مختصر بیان کیجئے۔
- ۲۔ ملا وجہی کے مقفی اور مسجع اسلوب کا جائزہ مثالوں کی مدد سے لیجئے۔
- ۳۔ شبلی کے عالمانہ طرز تحریر پر مختصر بحث کیجئے۔

(3x10=30)

سوال نمبر 3: درج ذیل سوالات کے مفصل جوابات تحریر کریں۔

- ۱۔ سیرت النبی ﷺ کی روشنی میں شبلی نعمانی کے اسلوب کا جائزہ لیجئے۔
- ۲۔ ”جہان دانش“ کو پیش نظر رکھتے ہوئے احسان دانش کے اسلوب نگارش پر بحث کیجئے۔
- ۳۔ اسلوب کیا ہے نیز اس کے تشکیلی عناصر پر نوٹ قلمبند کیجئے۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Business Administration

Course Code: BUS-111

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions: (6x5=30)**

- I. Trade role in development of Country
- II. Procedure Inventory Control
- III. Centralize VS Decentralize Purchasing
- IV. Business Combination
- V. Prospectus
- VI. Role and significance of finance

**Q.2. Answer the following questions: (3x10=30)**

**Q.No.2:** What are the different types of purchasing departments in the organization? What are the different policies regarding the purchasing process?

**Q.No.3:** What do you know about the types of meeting in a company? What are different features of winding up of the meeting?

**Q.No.4:** What are the different types of Risks? How to mitigate them with help of insurance? Explain with the help of example?



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions: (6x5=30)**

1. Shortly explain the "Software Engineering: A layered technology"?
2. Shortly define and explain "requirement engineering"?
3. List elements of "Entity Relationship Diagram" and explain any two of these?
4. Explain the types of 'actor'?
5. Differentiate "black box testing" and "white box testing"?
6. Define and explain "quality control" with example?

**Q.2. Answer the following questions: (3x10=30)**

1. Explain "Spiral Model" in details with example?
2. Explain the process to make "User Interface Design" by taking an example?
3. Explain "object design" in details by taking examples?



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

Q.1. Answer the following short questions:

(6x5=30)

**1. What is the time complexity of the following code?**

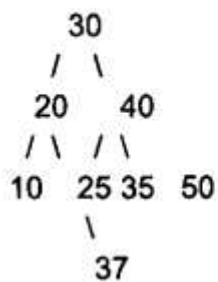
```
void factorialNestedLoop(int n) {  
    for (int i = 1; i <= n; i++) {  
        for (int j = 1; j <= i; j++) {  
            cout << i << ", " << j << " ";  
        }  
    }  
}
```

**2. Fill out the missing condition in the search function of hash table in the following code.**

```
#include <iostream>  
#include <list>  
using namespace std;  
  
class HashTable {  
private:  
    list<int> table[10];  
  
    int hashFunction(int key) {  
        return key % 10;  
    }  
  
public:  
    bool search(int key) {  
        int index = hashFunction(key);  
        for (int x : table[index]) {  
            // Insert missing condition here  
        }  
        return false;  
    }  
};
```

**3. In an IoT application, sensor data is hashed into a table. Many sensors produce data with repetitive patterns, resulting in frequent collisions. Identify the root cause of the collisions. Propose a solution to mitigate the issue.**

4. Perform a pre-order traversal.



5. Perform a BFS starting from A.

$A \rightarrow B \rightarrow C$

$\uparrow \quad \downarrow \quad \downarrow$

$D \leftarrow E \leftarrow F$

6. What is the difference between BFS and DFS with respect to data structure used?

Q.2. Answer the following questions:

(2x15=30)

**[15 marks] Part A**

Which of the following algorithms are stable, and why?

1. Bubble Sort
2. Selection Sort
3. Insertion Sort
4. Quick Sort
5. Merge Sort

**[15 marks] Part B**

Write a function to calculate the length of a linked list.

```
int getLength(Node* head) {
    int length = 0;
    Node* current = head;
    while (current != nullptr) {
        // Missing Code
    }
    return length;
}
```



### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Answer the following short questions:**

**(6x5=30)**

- Briefly explain different components of a database system.
- What is a data model? What are the different types of data models?
- Briefly explain super keys, candidate keys, and primary key with the help of an example.
- Briefly explain entity integrity and referential integrity with the help of an example.
- What are concurrent transactions, and what problems may occur in concurrent transactions.
- What is the role of transaction log and database change log in database recovery?

**Answer the following questions:**

**Question#2: Draw ER diagram for the following situation.**

**(10)**

An automobile body repair shop needs to keep information about its operations. Customers initially bring their cars to the shop for an estimate of repairs. A mechanic looks at the car and estimates the cost and time required for the entire job. If the customer accepts the estimate, a job number is assigned and the customer's name, contact information, the car's details, and a list of the repairs needed are recorded. The customer then makes an appointment to bring in the car on a specified date. When the car is brought in for repairs, the work begins. The shop keeps track of the charges for parts and labor as they accumulate. Only one mechanic works on the car for the entire job. A job might include several repairs (e.g., replacing the left fender, painting the passenger door). The time actually spent for each repair is recorded and used to calculate the cost of labor, using a fixed hourly rate.

**Question#3:**

**(10)**

Normalize the following **PROJECT** relation up to 3NF. Each project has a unique number identified by PROJNO. Each project has one manager specified by PROJMGR. Each employee has a manager specified by EMPMGR. One employee can work on many projects and vice versa. HOURS describes the no. of hours per week that a particular employee is assigned to work on a particular project. RATING shows the performance of an employee on a given project. You must specify the definition, functional dependencies and anomalies at each stage.

PROJNO, PROJNAME, BUDGET, STARTDATE, PROJMGR, EMPID, HOURS, EMPNAME, SALARY, EMPMGR, DEPTNO, DNAME, RATING

**Question#4:**

**(5x2=10)**

Consider the following database tables to write the queries:

**CUSTOMER** (CUSTNO, C\_NAME, INCOME, C\_PH#)

**PURCHASES** (PURCHASE#, PUR\_DATE, PROD\_NAME, PRICE, QTY)

- List all the CUSTOMERs whose name starts with 'S', and INCOME is between 30000 and 50000.
- List all the purchases made by a given CUSTOMER.
- Display CUSTNO, C\_NAME, PROD\_NAME, PRICE, QTY.
- Find the name of the CUSTOMER with the lowest purchases.
- Find the name(s) of the unsold PRODUCT.





**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (15x2=30)**

- i. Give two method of reduction of carboxylic acids.
- ii. State Lamber-Beer Law.
- iii. What is Photoelectric Effect?
- iv. Give Hiesenberg's Uncertainty Principle.
- v. What are Allowed Transitions in UV Spectroscopy?
- vi. Give two chemical tests to distinguish between aldehydes and ketones?
- vii. What are Determinate and Indeterminate errors?
- viii. How German and Davisson confirms the wave nature of electrons?
- ix. Define Standard Oxidation Potential. Give one example.
- x. Give preparation of any two derivatives of carboxylic acids.
- xi. Describe the concept of wave particle duality.
- xii. Give two applications of Common ion effect.
- xiii. Define Buffer. Give two examples
- xiv. State Faraday's first law of electrolysis.
- xv. What are Eigen functions?

**Q.2. Answer the following questions (5x6=30)**

- a) Explain Kohlrausch's law. Give its importance in Electrochemistry.
- b) Give two methods for the preparation of carboxylic acids. Also give effect of different parameters on strength of aliphatic acids.
- c) Discuss the construction and working of Galvanic Cell.
- d) Give the significance of Mean, Median, Accuracy and Significant Figures in evaluation of Analytical Data.
- e) Explain Wittig Reaction along with its mechanism.



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(15x2=30)**

- i. Give the construction of Standard Hydrogen electrode.
- ii. Differentiate between Fractional Precipitation and Co-precipitation?
- iii. Give importance of Eigen functions.
- iv. State Lambert's Law.
- v. What is wave-particle duality?
- vi. Give two method of reduction of carboxylic acids.
- vii. What do you mean by normalization of wave function?
- viii. Give two applications of common ion effect.
- ix. Classify the spectroscopic techniques on the basis of type of radiations.
- x. What are Determinate and Indeterminate errors?
- xi. How conductometric titration helps to determine the neutralization point of Strong Acid vs Strong Base?
- xii. Give Sommerfeld's contribution in determining atomic structure.
- xiii. Convert acetic aldehyde in to lactic acid.
- xiv. Give the mechanism of Cannizarro's reaction.
- xv. Compare Standard deviation and Relative Standard deviation.

**Q.2. Answer the following questions**

**(5x6=30)**

- a) How Schrodinger wave equation helps to understand the motion of particle in one dimensional box.
- b) Give the significance of Mean, Median, Accuracy and Significant Figures in evaluation of Analytical Data.
- c) What is Wittig Reaction? Give its mechanism.
- d) Explain the construction and working of IR Spectrophotometry.
- e) Give two methods for the preparation of carboxylic acids. Also give effect of different parameters on strength of aliphatic acids.



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(15x2=30)**

1. What is the range of Visible region?
2. Write the equation for Beer-Lambert law?
3. What is the role of flame in flame emission spectrophotometry?
4. Write one example of atomic spectroscopy?
5. Briefly explain the applications of UV/Vis spectroscopy.
6. Write chemical equation with conditions for Urea manufacturing.
7. What are non-reducing sugars, give example?
8. Name any two methods for sugarcane juice purification.
9. What is wrought iron?
10. What is approximate percentage of nitrogen in urea?
11. What are monosaccharides, give one example.
12. Write the different types of nucleic acids?
13. What are the main functions of lipids?
14. What is the empirical formula of carbohydrates?
15. What is the difference between Starch and Steroids?

**Q.2. Answer the following questions**

**(6x5=30)**

1. Briefly explain different types of transitions in UV/Vis spectroscopy.
2. Explain the principle of Infrared spectroscopy.
3. Describe all the chemical reactions in Blast furnace for Iron extraction.
4. Briefly describe all the stages involved in glass manufacturing.
5. What are different types of protein structures, also highlight the peptide bond.
6. What are triglycerides, write their hydrolysis and saponification reactions.





### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Answer the following short questions. (10x3=30)**

- How work in progress is calculated in contract account?
- Differentiate financial and operating lease?
- What is escalation clause in a contract?
- What is the treatment of abnormal loss of stock and normal loss of stock in contract account?
- How the value of unsold stock is calculated in consignment?
- List the objectives of maintaining departmental account?
- Differentiate between financial and operating lease?
- Define overriding commission in consignment.
- Differentiate between consignment inward and consignment outward?
- Define and differentiate between partnership and joint venture.

**Answer the following questions (3x10=30)**

**Q.2** Sadiq Limited has two departments P and Q. Department P sells goods to Q at normal selling prices. From the following particulars, prepare departmental trading and profit and loss account for the year ended December 31, 2024.

	Deptt. P (Rs.)	Deptt. Q (Rs.)
Opening stock	500,000	-
Purchases from outsider	2,800,000	300,000
Wages	350,000	200,000
Transfer of goods from Department P	-	800,000
Closing stock at cost	800,000	209,000
Sales to outsiders	3,000,000	2,000,000
Printing and stationery	30,000	25,000
Travelling expenses	20,000	160,000

The following expenses incurred for both the departments were not apportioned between the departments: (a) Salaries Rs. 330,000, (b) Advertisement Rs. 120,000 (c) General expenses Rs. 500,000; (d) Depreciation to be charged @30% on the machinery value of Rs. 96,000.

The advertisement expenses of the departments are to be apportioned in the turnover ratio. Salaries and depreciation are to be apportioned in the ratio of 2:1 and 1:3 respectively. General expenses are to be apportioned in the ratio 3:1.

**Q. 3** The Kasur Branch of Punjab Cash & Carry submits monthly returns to its head office. The summarized results for the six months ended 31<sup>st</sup> August were as follows:

Goods received from head office	(Rs.) 238,000	Cash remitted to head office	(Rs.) 244,000
Goods returned to head office	8,000	Goods lost by theft	2,400
Stock on hand (1 <sup>st</sup> March)	80,000	Stock on hand (31 <sup>st</sup> August)	64,000

All goods are invoiced by head office to the branch at selling price based on cost plus 33.33 per cent. Cash is remitted daily to the head office, by which all expenses are paid.

**Required:** Show the Kasur branch account in the books of the head office for the six months ended 31<sup>st</sup> August.

**Q. 4** Faizan Construction Limited undertook the construction of a building for a client. The value of the contract is Rs. 625,000 subject to a retention of 25% until one year after the certified completion of the contract. The following other details as shown in the books on 31<sup>st</sup> December 2024.

	Rs.		Rs.
Material from Store	40,600	General Expenses	37,100
Material purchased by Site	210,000	Direct Expenses	11,500
Closing Materials	3,150	Direct Expenses Accrued	800
Labour	202,500	Work Certified	550,000
Wages Accrued	3,900	Work Uncertified	8,250
Plant	6,050	Cash Received from Client	440,000

**Required:** Prepare Contract account, Contractee's account, and show how the relevant items would appear in the Balance Sheet.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Auditing

Course Code: COMM-206

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- I. What is the primary objective of an audit?
- II. Define the term 'audit evidence'.
- III. What is the difference between an audit opinion and a report?
- IV. What is compliance testing in auditing?
- V. What is the purpose of an engagement letter?
- VI. How would an auditor evaluate the effectiveness of internal controls in a company?

**Answer the following questions (3x10=30)**

**Q.No.2:** Enumerate the investigation of accounts and detection of frauds.

**Q.No.3:** What are the key steps in planning an audit, and how do they affect the overall audit strategy?

**Q.No.4:** How do auditors assess the risk of material misstatement in financial statements?





### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

#### Q.1. Answer the following short questions.

(6x5=30)

- Difference between Cost accounting and Financial accounting
- Variable cost vs fixed cost
- Why there is a need to use standard cost?
- Inventory ledger cards
- Budget variance vs idle capacity variance
- Periodic vs perpetual inventory system

#### Answer the following questions

(3x10=30)

- Q.2** On March 31, 2022 a fire breaks out in factory of HR Limited. Consequently, the factory and work in process inventory are destroyed, but the storeroom is successfully saved by fire brigade. After the fire, inventories in storeroom are determined by physical count. The inventories are as follows:

Raw materials	Rs 40000
Finished goods	70000

The accounting records reveal the following inventories as on January 1, 2022:

Raw materials	Rs 25000
Factory supplies	1000
Work in process	45000
Finished goods	75000

Sales upto March 31, 2022 are Rs 170000. Raw materials purchased during the current time period are Rs 60000. Carriage on purchase of materials is Rs 7000. Direct labour for the three months is Rs 50000. For the past five years the company applies factory overhead at 50% of direct labour cost.

A review of accounts showed that sales and gross profit for the last five years were:

Years	Sales	Gross Profit
2021	Rs 300000	Rs 120000
2020	340000	132000
2019	370000	143000
2018	340000	132000
2017	250000	113000
<b>Total</b>	<b>Rs 1600000</b>	<b>Rs 640000</b>

**Required:** Compute the value of work in process inventory lost by fire

- Q.3** Yadgar Ltd. uses process cost system. The costs of department-2 for the month of November were as follows:

Cost from department-1	Rs 300000
Cost added by the department:	
Material	210000
Labour	150000
Factory overhead	100000

The following information was also obtained from department-2:

Units received	30000
Units transferred out	24000
Units still in process	5000
Normal Loss units	1000

Units in process were completed 60% with respect to material and 50% with respect to labour and 40% with respect to overhead.

**Required:** Cost of Production Report for the month of November of Department-2

- Q.4** Waseem Company estimated its factory overhead for the next year at Rs 500000. It is estimated that 40000 units will be produced at a materials cost of Rs 300000. Production will require 50000 man hours at an estimated wage cost of Rs 600000. The machine will run about 25000 hours.

**Required:**

- Predetermined Factory overhead rates based on:
  - Direct material cost
  - Direct labour hours
  - Direct labour cost
  - Machine hours
  - Prime cost
- Total cost and per unit cost of Job No. 007 consisting of 100 units by each rate in (1) above (Job no 007: direct materials Rs 34000; direct labour Rs 42000; direct labour hours 3800 and machine hours 2200)





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Sales Tax Custom and Federal Excise Duty

Course Code: COMM-208

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. Briefly explain the following under Sales Tax Act, 1990. (6x5=30)

- A) Time of supply
- B) Tax fraction
- C) Exempt supply
- D) Manufacturer or producer
- E) Active Tax Payer
- F) Default surcharge

Answer the following questions (3x10=30)

Q.2 Discuss the features of an Appeal to the Appellate Tribunal under the Federal Excise Act, 2005.

Q.3 What are the different types of returns filed under Sales Tax Act, 1990.

Q.No.4. Compute the sales tax liability of Mr. Hannan, a registered manufacturer, for the month of August 2022 with the help of following information:

Sales to registered persons	Rs. 7000000
Sales to non-registered person	300000
Supplies made for personal use (exclusive of sales tax)	300000
Exempt supplies	250000
Zero-rated supplies	70000
Supply to Govt. Department	200000
Goods pledge with a bank were disposed by Bank for satisfaction of debt (normal selling price of these goods were Rs. 750000)	600000
Taxable supplies to Govt. department	100000
Taxable purchases from registered person (Tax invoices available of Rs. 700,000)	900000
Purchase of raw material (Used in taxable and exempt supplies)	380000
Purchases of furniture and fixtures for office use	350000
Acquisition of fixed assets form non-registered persons	1600000
Imported taxed goods (bill of entry is not available)	500000

**Required:** Compute the sales tax liability for the month of August, 2022



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Computer -IV

Course Code: COMP-203

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions:**

**(6x5=30)**

- a) What is the difference between global and local variables?
- b) What are loops in VB? Why are they important?
- c) How can you resize a dynamic array in VB?
- d) What is the difference between a dialog box and a message box?
- e) Provide an example of using logical operators in VB.
- f) Write a VB program using the If...Then statement.

**Q.2. Answer the following questions**

**(3x10=30)**

- a) Write a Visual Basic program to calculate the column-wise sum of a 2D array.
- b) Write a Visual Basic program to find the union of two arrays.
- c) Write a Visual Basic program to calculate the sum of all even numbers in a given range from 1 to 100.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Criminology

Course Code: CRIM-211

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions:**

**(6x5=30)**

- 1: What is a crime?
- 2: Differentiate between deviance and conformity.
- 3: What do you mean by victimology?
- 4: What is penology?
- 5: What do you mean by primary and secondary deviance?
- 6: What is meant by the term “juvenile Delinquency”?

**Q.2. Answer the following questions**

**(3x10=30)**

- 1: Give a brief description of organized crime.
- 2: What are the specific aims and purposes of the criminal justice system?
- 3: Briefly describe the phenomenon of ‘Juvenile delinquency



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Research Methods-I

Course Code: ECON-203A

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Give short answer to the following concepts. (5x6=30)**

- i. Analytical research
- ii. Treatments group
- iii. Research Problem
- iv. Ex-post facto Research
- v. How a researcher can increase control over research

**Q.2. Answer the following questions (3x10=30)**

- a. How systematic bias can be faced by the researcher while doing research
- b. How sampling and non-sampling errors can be reduced to get valid data for research?
- c. Explain why research design is needed in research and what are the major features of good research design?



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions: (6x5=30)**

- i. Differentiate between exogenous and endogenous variables in macroeconomics.
- ii. Briefly describe the Absolute Income Hypothesis.
- iii. What are the determinants of investment in the goods market?
- iv. Describe the concept of the money supply multiplier.
- v. Explain the Phillips Curve in the short run.
- vi. Define structural unemployment and its causes.

**Q.2. Answer the following questions (3x10=30)**

- i. Discuss the Keynesian revolution and its impact on the development of macroeconomics.
- ii. Explain the derivation of the aggregate demand curve using the interaction of IS and LM functions.
- iii. Discuss the labor market equilibrium under the imperfect information model.



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions: (6x5=30)**

- i. What is the significance of the hypothetico-deductive method in research?
- ii. Differentiate between exploratory and descriptive research questions.
- iii. What are the ethical issues involved in conducting a literature review?
- iv. Differentiate between directional and non-directional hypotheses.
- v. Compare experimental research and survey research as strategies in research design.
- vi. What are mixed methods, and why are they important in research?

**Q.2. Answer the following questions (3x10=30)**

- i. Discuss the three perspectives for categorizing research (application, objective, and mode of enquiry) with examples.
- ii. Explain how theoretical frameworks contribute to deductive research, with examples of variable types.
- iii. Discuss the elements of research design, focusing on study settings and units of analysis.





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Islamic Economics

Course Code: ECON-208

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- i. Need of Islamic Economics**
- ii. Economic Spheres of Piety**
- iii. Explain Modarbah**
- iv. Legal Measures of Concentration of wealth**
- v. Bai Salam & Murabaha**
- vi. Rights and duties of labour in Islamic Economic System**

**Q.2. Answer the following questions**

**(3x10=30)**

- i. Explain the concept of consumption and principles of consumption.**
- ii. Theory of Taxation in Islam with reference to Ibn-e-Khaldun.**
- iii. Define Riba and give the economic rationale for prohibition of Riba (interest) in Islam.**





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Basic Economics-IV

Course Code: ECON-223

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (5x6=30)**

- i. Current account deficit
- ii. Explain concept of Debt servicing.
- iii. Explain concept of Portfolio investment
- iv. Importance of agriculture sector for Pakistan
- v. Differentiate between economic growth and economic development.

**Q.2. Answer the following questions (3x10=30)**

- i. How productivity of labor force can be increased in Pakistan?
- ii. How industrial sector can increase economic growth of Pakistan? Discuss in detail.
- iii. Explain the major components of balance of payment with the help of figures of a developing country.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Economics of Pakistan

Course Code: ECON-232

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- i. What is observation .write its two kinds.
- ii. Define Inflation.
- iii. What are Major exports of Pakistan?
- iv. Explain the tools of monetary policy
- v. Difference between Aid and Debt
- vi. Discuss the performance of banking sector of Pakistan

**Q.2. Answer the following questions (3x10=30)**

- i. Describe briefly the role of Agriculture Sector in Pakistan's Economy.
- ii. Discuss how Pakistan get facilitated from the IMF funding facilities
- iii. Differentiate the concept of economic development and economic growth with the help of examples.



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

1. Write a short note on analytical philosophy.
2. Briefly explain prescriptive philosophy.
3. What is the role of a teacher according to realism?
4. What do you know about ontology?
5. What is the difference between philosophy and educational philosophy?
6. What is the role of religious values in individual and social life?

**Q.2. Answer the following questions**

**(3x10=30)**

1. What are the main features of reconstructionism in education?
2. Define the philosophy of idealism with reference to the aim of education, curriculum, and the role of the teacher.
3. What are the educational aims of naturalism in relation to student development?



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Curriculum Development

Course Code: ED-323

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- i. What is the scope of curriculum?
- ii. Enlist the principles of curriculum development.
- iii. Write down internal forces influencing curriculum development.
- iv. What are the sources of educational aims?
- v. What is meant by curriculum evaluation?
- vi. Write a note on Learner centred curriculum.

**Q.2. Answer the following questions**

**(3x10=30)**

- i. Discuss the importance of co-curricular activities in curriculum.
- ii. Discuss in detail the significance of psychological foundations of curriculum.
- iii. What are the principles of content selection and content organization in the process of curriculum development?



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: English Language-IV

Course Code: EDE-106

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- Do you think Muslims' desire for a separate homeland was the only reason for the creation of Pakistan? (*Pakistan and the Modern World*)
- What does the title of the lesson *Whistling of Birds* symbolise?
- The smiling face of the tailor was hiding a deeply tragic life. Elucidate. (*My Tailor*)
- The use of words like "Please" and "Thank you" indicates politeness which is a highly desirable social trait in our society. Do you agree? (*On Saying Please*)
- What is the main idea of the lesson *Tolerance* by EM Forster?
- The Beauty Industry* has irony, satire and humour. Discuss.

**Answer the following questions**

**(2x15=30)**

**Q.2. Translate the following into English.**

رشوت ستانی اور بد عنوانی ہمارے معاشرے کا حصہ بن چکی ہے۔ ان باتوں کا تعلق کسی ایک محکمے یا معاشرے کے مخصوص حصے سے نہیں ہے۔ یہ ہر محکمے اور ادارے کا ایک لازمی جزو معلوم ہوتا ہے۔ زندگی اب زیادہ آسان نہیں رہی۔ متوسط طبقہ امیر لوگوں کی پیروی کرنے کے لئے اپنا راستہ کھو چکا ہے۔ ہم زندگی کی آسائشیں حاصل کرنے میں بہت وقت ضائع کر دیتے ہیں۔ دوسروں کو شکست دینے اور امیر بننے کی دوڑ، معاشرے کو رشوت ستانی اور کرپشن کی طرف دھکیل رہی ہے۔

**Q.3. Write a dialogue between two friends regarding violation of Human Rights in Pakistan.**



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Science (Basic)

Course Code: EDE-110

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- What is Green House Effect.
- Write a brief note on Cutting.
- Give five examples of Heterozygous mixtures.
- Describe few (at least five) uses of Magnets.
- Write characteristics of Meteorites.
- Write chemical formulae of, Ammonia, Benzene, Methane, Nitric Acid and Acetic acid.

**Q.2. Answer the following questions**

**(3x10=30)**

- Discuss three modes of heat transfer.
- Write a detailed note on human central nervous system.
- Differentiate between Compounds and Mixtures. Also giving at least five properties of each.



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(5x6=30)**

1. Explain Possibilism as an approach to man-environment interaction.
2. Write the functions of human settlement.
3. How age and sex structure affect a population?
4. Briefly explain the Central Place Theory.
5. What is the difference between push and pull factors in migration?

**Q.2. Answer the following questions**

**(3x10=30)**

1. Discuss the concept of environmental determinism and its relationship to human geography.
2. Explain the factors influencing population distribution and discuss how age structure, sex structure, and population change (natural increase and migration) impact society.
3. Identify major environmental problems and analyze their impact on ecosystems and human life.





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Content Elective (History-II)

Course Code: EDE-160

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

Q.1. Write short answers not more than four or five lines: (5x6=30)

سوال نمبر 1: مختصر جوابات تحریر کیجیے۔ جوابات چار یا پانچ سطروں سے زیادہ نہ ہوں۔

i. Marwan's Internal Policy

i. مروان کی داخلی حکمت عملی

ii. Umayyad's Judiciary System.

ii. اموی نظام عدل

iii. Hazrat Umar Bin Abdul Aziz (R.A.)

iii. حضرت عمر بن عبدالعزیزؓ

iv. Ummayyad's Educational system

iv. اموی نظام تعلیم

v. Hasham's Literary Taste

v. ہاشم کا ادبی ذوق

Q.2. Answer the following questions

(2x15=30)

سوال نمبر 2: سوالات کے جوابات تفصیل سے لکھیں۔

i. Discuss Amir Muawiya's (R.A.) domestic and foreign policy.

i. حضرت امیر معاویہؓ کی اندرونی اور بیرونی حکمت عملی کو بیان کریں۔

ii. Highlight the central and provincial administration of the Umayyad.

ii. اموی مرکزی اور صوبائی نظام پر روشنی ڈالیں۔





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Political Science II

Course Code: EDE-164

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- 1 Define Democracy and discuss its basic attributes?
- 2 What are the fundamentals of Islamic concept of Democracy?
- 3 Define Adult and Restricted Suffrage?
- 4 Highlight the differences between Parliamentary and Presidential System?
- 5 Discuss the features of a Federal State?
- 6 What are the major differences between Referendum and Plebiscite?

**Q.2. Answer the following questions (2x15=30)**

- 1 Discuss Idealist theory regarding the nature and purpose of state?
- 2 Discuss different types of Political Parties and its role in the development of Democracy?



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Content Elective A (Sociology – II) Course Code: EDE-168

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

**1: Differentiate between Cultural patterns and Cultural Traits.**

**2: What is do you mean by 'cultural uniformity'?**

**3: Differentiate between 'ideal' and 'real' culture.**

**4: What do you mean by social boundaries?**

**5: Differentiate between 'role taking' and 'role playing'.**

**6: Differentiate between 'social class' and 'caste'.**

**Q.2. Answer the following questions**

**(3x10=30)**

**1: Write a brief note on social stratification.**

**2: Give a brief description of the concept of 'social mobility'.**

**3: Give a theoretical explanation of the development of 'self' in accordance with the theory of George Herbert Mead.**



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Urdu-II

Course Code: EDE-172

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

(4x7.5=30)

سوال نمبر 1: درج ذیل سوالات کے مختصر جوابات دیں۔

- i. حالی کی شاعری کا خاصہ کیا ہے؟
- ii. سفرنامہ پطرس" کا تجزیہ کریں۔
- iii. رشید احمد صدیقی کی خاکہ نگاری کا مختصر جائزہ لیں۔
- iv. حفیظ جالندھری کی نظم "بلا ل عید" کا خلاصہ تحریر کریں۔

(3x10=30)

سوال نمبر 2: درج ذیل سوالات کے تفصیلی جوابات دیں۔

- i. فیض کی نظم 'آ جاؤ افریقا' کا تجزیہ کریں۔
- ii. ڈاکٹر پریم چند کی ادبی خدمات پر تفصیل سے لکھیں۔
- iii. سیاق و سباق کے حوالے سے درج ذیل نثر پارے کی تشریح کریں۔  
پریم چند کی کہانیاں نہ صرف ادبی حیثیت رکھتی ہیں، بلکہ وہ معاشرتی حقیقتوں کی عکاسی بھی کرتی ہیں۔ ان کا کہنا تھا، 'میرے کام کا مقصد صرف تفریح فراہم کرنا نہیں تھا، بلکہ میں نے ہمیشہ کوشش کی ہے کہ میں اپنے قارئین کو سماج کے مسائل سے آگاہ کروں، تاکہ وہ ان پر غور کریں اور ان کے حل کی کوشش کریں۔ میری کہانیاں میرے دل کی آواز ہیں، اور میں ان میں اپنے معاشرتی تجربات کو جھلکاتا ہوں۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Content Elective (Islamic Studies)

Course Code: EDE-176

Roll No. ....

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

Q.1. Write down the short answers of the following questions: (6x5=30)

سوال نمبر 1: درج ذیل سوالات کے مختصر جواب تحریر کریں۔

- Write the types of Sifat e Ilahiya (صفات الہیہ) .i صفات الہیہ کی اقسام تحریر کیجیے۔
- What is the atonement of (ایلا) .ii ایلا کا کفارہ کیا ہے؟
- Write the etiquettes of Assembly of Prophet ﷺ .iii مجلس نبوی کے آداب تحریر کیجیے۔
- How did Allah represent Himself by an example in Surah Al Nur? .iv اللہ تعالیٰ نے سورۃ النور میں اپنے آپ کو کس مثال سے ظاہر کیا ہے؟
- What are the conditions for slanderer? .v قذف کا الزام لگانے والے کے لئے کیا شرائط ہیں؟
- Write the definition of (مرکب توصیفی) and give two examples. .vi مرکب توصیفی کی تعریف لکھیے اور دو مثالیں دیجیے۔

Q.2. Write down the detailed answers of the following questions. (3x10=30)

سوال نمبر 2: درج ذیل سوالات کے تفصیلاً جوابات تحریر کریں۔

- Write a comparative note of Quran with other heavenly books. .i (الف) قرآن مجید کا دیگر کتب سماویہ سے موازنہ کیجیے۔
- Write a detailed note on incidence of (واقعہ اُکف) .ii (ب) واقعہ اُکف پر ایک تفصیلاً نوٹ تحریر کیجیے۔
- Write down the translation of the following verses. .iii (ج) درج ذیل آیات کا ترجمہ تحریر کریں۔  
إِنَّ الَّذِينَ يُجِبُونَ أَنْ تَشِيْعَ الْفَاحِشَةُ فِي الدِّينِ أَمْنُوا لَهُمْ عَذَابُ الْيَمِّ فِي الدُّنْيَا وَالْآخِرَةِ وَاللَّهُ يَعْلَمُ وَأَنْتُمْ لَا تَعْلَمُونَ ۝ وَلَوْلَا فَضْلُ اللَّهِ عَلَيْكُمْ وَرَحْمَتُهُ وَأَنَّ اللَّهَ زَعُوفٌ رَحِيمٌ ۝



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Introduction to Education

Course Code: EDU-111

Roll No. ....

Time: 3 Hrs.

Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

### Q.1. Question with short answers.

(6x5=30)

سوال نمبر 1: درج ذیل سوالات کے مختصر جوابات دیں۔

- What is meant by community and education? Explain briefly in your own words.  
(الف) کمیونٹی اور ایجوکیشن سے کیا مراد ہے؟ اپنے الفاظ میں مختصر اوضاحت کریں۔
- What are the benefits of Discussion Method?  
(ب) تدریس میں مباحثی طریقہ کے فوائد کیا ہیں؟
- Describe briefly sources of knowledge.  
(ج) ذرائع علم کی مختصر اوضاحت کریں۔
- What is the importance of Environmental Education? Explain.  
(د) ماحولیاتی تعلیم کی کیا اہمیت ہے؟ وضاحت کریں۔
- Define goals and objectives.  
(ه) گولز (Goals) اور مقاصد (Objectives) کی تعریف کیجئے۔
- What is the importance of Drug Education in Schools.  
(و) سکولوں میں ڈرگ ایجوکیشن (Drug Education) کی کیا اہمیت ہے؟

### Q.2. Answer the following questions.

(3x10=30)

سوال نمبر 2: درج ذیل سوالات کے جوابات دیں۔

- Write a brief note on Nadwa-tul-Ulma movement in Sub-Continent.  
(الف) برصغیر میں ندوۃ العلماء تحریک پر ایک مختصر آنوت تحریر کریں۔
- Explain the characteristics of "Realism".  
(ب) فلسفہ میں "حقیقت پسندی" کی خصوصیات کی وضاحت کریں۔
- What is the role of education for socio-economic development in our country?  
(ج) ہمارے ملک میں سماجی و معاشرتی ترقی میں تعلیم کا کردار تحریر کریں۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: English – IV (English for Practical Aims)

Course Code: ENG-202

Roll No. ....

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Answer the following short questions.**

**(6x5=30)**

- i. What are the different stages of interview?
- ii. Discuss skimming and scanning in detail?
- iii. Write a note on face to face interview and role of gestures?
- iv. What are the stages of comprehension?
- v. What is C.V writing? What are the pre-requisites of it?
- vi. Describe basic components of speaking skills?

**Q.2. Read the following comprehension and Answer the following questions.**

**(5x2=10)**

Conflict had existed between Spain and England since the 1570s. England wanted a share of the wealth that Spain had been taking from the lands it had claimed in the Americas. Religious differences also caused conflict between the two countries. Whereas Spain was Roman Catholic, most of England had become protestant. King Philip II of Spain wanted to claim the throne and make England a catholic country again.

1. Which two countries were in conflict since 1570?
2. What were the causes of conflict?
3. What was the religion of Spain?
4. What did King Philip II of Spain want?
5. Suggest a suitable title of the passage.

**Q.3. Write a cover letter in response to following job advertisement: (10)**

Social Media correspondent to sell online products

Proficient in communication skills

Effective marketing and interpersonal skills

**Q.4. Write a comprehensive essay on any one of the following topic (10)**

**Climate Change and its impacts**

**Benefits of online learning**

**Terrorism**



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: English-IV (Advance Academic Reading and Writing)

Course Code: ENG-204

Time: 3 Hrs. Marks: 60

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**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

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**Q.1. Answer the following short questions.**

**(6x5=30)**

1. What is meant by **Academic Writing**?
2. What are the **FOUR** steps of critical analysis?
3. How would you write a term paper step by step?
4. Elaborate the technique or procedure for writing synthesis essay.
5. What are the **FOUR** types of composition writing?
6. What is an informed argument?

**Q.2. Answer the following questions**

**(3x10=30)**

1. What are the techniques to improve reading skills?
2. Discuss in detail the 5 C's of report writing?
3. Write an essay on **ONE** of the following topics:
  - a) Democracy

OR

  - b) Woman Empowerment



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Literature-IV (History of Literature-II)

Course Code: ENG-205

Time: 3 Hrs. Marks: 60

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**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

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**Q.1. Answer the following short questions.**

**(6x5=30)**

- i. What are the types of REALISM?
- ii. How has the movement of SYMBOLISM been used to convey themes, ideas and character development in English Literature?
- iii. Discuss the concept of EXISTENTIALISM and NIHILISM in a brief manner.
- iv. What was the role of World War 1 in shaping the literature of MODERNISM?
- v. What are the major characteristics of FORMALISM?
- vi. Write the names of key figures who contributed to the theory of STRUCTURALISM?

**Q.2. Answer the following questions**

**(2x15=30)**

- i. What is ABSURDISM? Discuss in detail the characteristics of ABSURDISMS.
- ii. How does NEW HISTORICISM approach the relationship between literature and history and what are the implications of this approach for understanding literary text as historical artifacts.





**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

**1. Are these words simple or complex? Circle the bound morphemes.**

fly, desks, untie, tree, dislike, electricity, bookish, national, unbelievable, carpeted

**2. Make tree diagram of the following words:**

Independently; motivational;

**3. Place a plus (+) sign between each morpheme. Label each affix as derivational (D) or inflectional (I).**

bill's, running, played, action, roughest, comes, friendly, unfriendly, longer, loveable

**4. Underline the root word and circle the suffix. Also tell whether the root is free or bound.**

Payment, spiteful, suited, fastest, deform, disobey, unlucky, setters, regarding, examination

**5. Draw a tree diagram of the following sentence:**

The chef cooks the soup.

**6. What structures can a noun phrase have? Discuss**

**Q.2. Answer the following questions**

**i. Give your understanding of the grammatical theory of IC analysis. (15)**

**ii. Divide each of the sentences below into its constituent parts, and label**

**each' part S, V, C, O or A.**

**(5x3=15)**

- a) You never take me to a restaurant.
- b) We choose you as our spokesman.
- c) They don't sell this drug without a prescription.
- d) Somebody shut the door in my face.
- e) The dog bit several people badly.



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1.** Answer the following short questions.

**(6x5=30)**

- 1. What do you know of the basic notions in morphology? Discuss.**
- 2. Do plural markers in English come in one shape? Discuss briefly.**
- 3. Roots in English are mostly free rather than bound. Briefly discuss.**
- 4. Clauses are the constituents that sentences are made up. How do you understand it?**
- 5. What are the functions of Verb phrase? Discuss.**
- 6 Discuss Prepositional and Adjective Phrases.**

**Q.2.** Answer the following questions

**(3x10=30)**

- 1. Discuss Inflectional Morphology in detail.**
- 2. What are word formation types? Discuss at least 4 types.**
- 3. Draw tree diagrams of the following sentences:**

- I. Why are you working hard these days?**
- II. This is my favourite film.**
- III. When did the dinosaur live?**
- IV. Statements are the most common type of sentence.**
- V. They don't ask questions.**



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

1. What is PERSONAL WRITING? Discuss briefly.
2. Briefly describe OBJECTIVITY.
3. What is REFERENCING FROM INTERNET? Discuss.
4. What are MISPLACED and DANGLING MODIFIERS? Give at least two examples.
5. Find the noun clauses in the following sentences.
  - I. One should profit from what he sees and learns.
  - II. Her idea that I hire you was a very good one.
  - III. We wonder what your plans for the trip are.
  - IV. My hope is that we may visit Karachi.
  - V. Why you did not hire me is hard to comprehend.
6. Tell which type of phrase is the underlined unit (preposition phrase, verb phrase, noun phrase, adjective phrase, adverb phrase).
  - I. The singer that you see on the stage is my friend.
  - II. The owner is a woman by whom many things have been accomplished.
  - III. The teacher who gives the girls piano lessons lives next door.
  - IV. After the match the centre forward was very happy.
  - V. He ran very fast.

**Q.2. Answer the following questions (3x10=30)**

1. How is an ESSAY planned? Give your understanding.
2. What is the STRUCTURE OF a PARAGRAPH? Discuss giving examples.
3. Define CITING and discuss its sources.



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- 1) Write a detailed note on Reading Strategies.
- 2) What is the significance of scanning in reading skills?
- 3) What are the five important parts of a CV?
- 4) Elaborate creative Comprehension in your own words.
- 5) Why is panel interview used for higher jobs?
- 6) What is the importance of Reflective Essay?

Answer the following questions

**Q. 2 . Read the following passage carefully and answer the following questions in your own words. (10 Marks)**

Unemployment refers to the condition when individuals, capable and willing to work, are unable to secure gainful employment. It is a pervasive issue across the globe, with varying degrees of impact on societies. Poverty creates psychological disorders, which can lead to chaos in a peaceful social set up. It results in financial instability, and emotional distress, and hampers individual growth. Governments and organizations must collaborate to create opportunities for employment through skill development and policy implementation.

- 1- What is unemployment?
- 2- How does unemployment create various problems?
- 3- How can the government's control it?
- 4- Suggest a suitable title.

**Q. 3 . Write an essay on any ONE of the following topics:**

**(20 Marks)**

- 1- Growing Terrorism in the World.
- 2- Importance of Hobbies.
- 3- Benefits of Online Business.





### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Answer the following short questions.**

**(6x5=30)**

1. Explain the essential features of a good C.V.?
2. What are effective networking tools for your job search efforts?
3. What is the difference between cover letter and Resume?
4. Explain the characteristics of a desirable behavior during an interview?
5. What are the don'ts of an interview?
6. Why is it important to prepare questions in advance for the interviewer and how does this reflect on your candidacy?

**Answer the following questions**

**(3x10=30)**

**Q.2. Read the given passage below and answer the questions given at the end.**

People do not always do the things we want them to do. No matter how reasonable or minimal our expectations may be, there are times when we are let down. Naturally, we feel upset and hurt when our expectations are not met. We dread confrontations because they are unpleasant and can damage relationships. Yet not confronting a person does not solve the problem because unresolved issues also affect relationships in an adverse way. Actually, the real problem lies in our style of confrontation, not in the issue. Typically, we use character-based confrontations. They help in venting our anger and hurt, but that is the only thing they do. They lead to angry show-downs and bring all discussions to a grinding halt. It is important to remember that self-image is the most important possession of all human beings. It is the way we view and regard ourselves in our own eyes and in the eyes of others. As self-conscious beings, we are acutely aware of our image and constantly work towards protecting it from any damage. We also seek approval from others about our own self-image. We feel distraught if we sense that there is even a slight threat to our self-image, because our character is the essence of our lives. To ensure a rational dialogue over dashed expectations, we need to deploy issue-based confrontations. They involve an explanation of which actions have bothered us, in what manner and what changes we would like from the other person.

**Questions:**

- 1 How do Confrontations damage our self-image?
- 2 What is the importance of confrontations according to the passage?
3. Why do we seek the Approval from others for our own self-image?
- 4 How are Issue - based confrontations an easier way out?
5. Suggest a suitable title for this passage

**Q.3. What are the major characteristics of a successful follow up message after the interview?**

**Q.4. Write an essay on one of the following topics:**

- i. Technology and education
- ii. Women empowerment



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- 1 . What is a thesis statement in an essay? ( 5 marks)
- 2 . What are the parts of a cover letter? ( 5 Marks)
3. What are the points we need to consider when writing a summary?
- 4 .Discuss briefly the format of a CV? ( 5 marks)
5. What is an invited cover letter? ( 5 marks)
- 6 . How should we give answers in an interview? ( 5 marks)

**Q.2. Answer the following questions (3x10=30)**

- 1 . Write an application to the principal of the school requesting him to arrange an air conditioner for the classroom.

2. write an essay on any one of the following topics:

Leadership

My favorite Teacher

Rainy season

3. Write a summary of the following paragraph and suggest a suitable title.

All the great things that have been done on earth have not been done for gold. The Lord Jesus did not come down and die on the cross for gold. The Spartans sought no reward when they fought and died at Thermopylae. The wise Socrates demands no salary from his countrymen but lives all day poor and barefoot only to make them good and noble. And even in our own time, there are heroes who do noble things but not for gold.

Our discoverers did not go out to enrich themselves when they set out on one terrible frozen sea after another: even the women who went to labor in Oriental hospitals did not impoverish themselves that they might become rich in great works.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: English-IV (Business Communication-II)

Course Code: ENG-222

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions**

**(6x5=30)**

- A. What is the importance of date and signature in a job application.
- B. Discuss religion and language as cultural variables.
- C. Define e-mail and discuss how it works?
- D. Internet has become a part and parcel of business communication. Do you agree?
- E. What is an analytical letter report.
- F. Legal issues such as defamation and privacy are concerns in all organisations. Discuss.

**Q.2. Answer the following questions**

**(3x10=30)**

- A. Write a detailed note on Business report.
- B. Explain business communication and the technology context in detail .
- C. write a short report as the head of sales department to improve sales of your products.





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Writing Workshop (MAS)

Course Code: ENG-223

Time: 3 Hrs. Marks: 60

Roll No. ....

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. Answer the following short questions.

(6x5=30)

سوال نمبر 1: درج ذیل سوالات کے مختصر جوابات تحریر کریں۔

1. Elaborate on the importance of a strong opening and closing in a formal letter of application.
2. Break down the essential elements of a successful press release, emphasizing the differences between pre-event and post-event structures.
3. Compare and contrast the narrative styles employed in article writing and feature writing, providing examples.
4. Write important points about the role of technology in editorial and column writing.
5. In essay writing on social issues, explore how storytelling can be effectively integrated, and discuss elements that enhance reader engagement.
6. Evaluate the role of non-verbal communication in interview writing techniques.

1. فارمل درخواست میں مضبوط اوپننگ کی اہمیت کی وضاحت کریں۔
2. ایک کامیاب پریس ریلیز کے چار ضروری عناصر پر نوٹ لکھیں اور پری ایونٹ اور پوسٹ ایونٹ ڈھانچے کے مابین فرق بتائیں۔
3. مشائیں فراہم کرتے ہوئے مضمون نگاری اور فیچر رائٹنگ میں استعمال ہونے والے بیانیہ اسٹائل کا موازنہ کریں۔
4. ادارہ اور کالم لکھنے میں ٹیکنالوجی کے ابھرتے ہوئے کردار کے بارے میں اہم نکات لکھیں۔
5. سماجی مسائل پر مضمون نگاری میں، یہ بیان کریں کہ کہانی سننے کو مؤثر طریقے سے کس طرح شامل کیا جاسکتا ہے۔
6. انٹرویو کرنے کی تکنیک میں غیر زبانی مواصلات کے کردار کا جائزہ لیں۔

Q.2. Answer the following questions

(3x10=30)

سوال نمبر 2: درج ذیل سوالات کے مفصل جوابات تحریر کریں۔

1. Discuss the role and significance of press releases in mass communication. Differentiate between pre-event and post-event press releases, providing examples of situations where each type is most effectively utilized.
2. How a good article benefits a social cause. Examine benefits and harms, supporting your arguments with relevant examples.
3. Create an essay on anyone of the cultural dynamics shaping Pakistan today.
  - i. Traditional vs. Modern Lifestyles in Urban and Rural Areas
  - ii. The Influence of Media on Culture
  - iii. Indigenous Arts and Crafts and Their Benefits

1. عوامی مواصلات میں پریس ریلیز کے کردار اور اہمیت بیان کریں۔ پری-ایونٹ اور پوسٹ-ایونٹ پریس ریلیز کے درمیان فرق کریں، ایسے حالات کی مثالیں فراہم کرتے ہیں جہاں ہر قسم کو سب سے زیادہ مؤثر طریقے سے استعمال کیا جاتا ہے۔
2. ایک اچھا آرٹیکل کس طرح ایک سماجی مقصد کو قائمہ پہنچاتا ہے۔ اس کے فوائد اور نقصانات کی جانچ پڑتال کریں اور متعلقہ مثالوں کے ساتھ اپنے دلائل کی وضاحت کریں۔
3. آج پاکستان کو تشکیل دینے والی ثقافتی مسائل میں سے کسی ایک پر مضمون لکھیں:
  - i. شہری اور دیہی علاقوں میں روایتی بمقابلہ جدید طرز زندگی
  - ii. میڈیا کا ثقافت پر اثر
  - iii. دیسی فنون لطیفہ اور ان کے فوائد



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Economics

Course Code: GC-113

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(15x2=30)**

- I. Define cross price elasticity of demand.**
- II. Explain rise and fall of demand.**
- III. Explain rewards of factor inputs.**
- IV. What is meant by Fiscal policy?**
- V. Explain contraction and extension of demand.**
- VI. What is meant by imperfect competition?**
- VII. Define Micro Economics.**
- VIII. What is meant by Average revenue and Marginal revenue?**
- IX. Define income elasticity of demand.**
- X. Define balance of payments.**
- XI. Differentiate between GDP and GNP.**
- XII. Explain factors of production.**
- XIII. Differentiate between Public and Private goods**
- XIV. Define saving function.**
- XV. Explain business cycles.**

**Q.2. Answer the following questions**

**(3x10=30)**

- I. Explain perfect competition. Define short run equilibrium of firms in details.**
- II. Explain market equilibrium with the help of demand and supply.**
- III. Explain the concept of Inflation. Also describe its types and causes.**



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: History

Course Code: GC-115

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

Q.1. Answer the following short questions.

(5x6=30)

سوال نمبر 1: درج ذیل سوالات کے مختصر جوابات دیں۔

i. Partition of Bengal 1905

i۔ تقسیم بنگال 1905

ii. Simla Deputation

ii۔ شملہ وفد

iii. Lucknow Pact

iii۔ لکھنؤ پیکٹ

iv. Khilafat Movement

iv۔ تحریک خلافت

v. Nehru Report

v۔ نہر رپورٹ

Answer the following questions.

(2x15=30)

درج ذیل سوالات کے جوابات دیں۔

Q. No. 2. Describe the significance of Lahore Resolution.

سوال نمبر 2۔ قرارداد لاہور کی اہمیت بیان کریں۔

Q. No. 3. Discuss the 3<sup>rd</sup> June Plan 1947.

سوال نمبر 3۔ 3 جون 1947 کے منصوبے پر بحث کریں۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Philosophy

Course Code: GEN-2006

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

1. Write a note on ethics and its importance in life.
2. What is inductive argument and explain it with example?
3. What is a deductive argument and explain it with example.
4. What is logic?
5. Define epistemology.
6. Explain political philosophy and its importance.

**Q.2. Answer the following questions.**

**(3x10=30)**

1. Give a comparative study of idealism and materialism in metaphysics.
2. What is utilitarianism of J.S. Mill and apply it on problems of moral philosophy.
3. Define knowledge and discuss epistemology in detail.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Gender Studies

Course Code: GEND-211

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

1. Liberal feminism
2. Gender and fundamental rights
3. Need for gender studies
4. Power and Patriarchy
5. Radical feminism
6. Gender and social mobility

**Q.2. Answer the following questions**

**(3x10=30)**

- 1: Explain Universal Declaration of Human Rights (UDHR) with special reference to women rights.
- 2: Highlight some of the major issues of gender development in Pakistani perspective.
- 3: Gender mainstreaming can resolve a host of implementation challenges in welfare policies of Pakistan. Accept or refute the statement with logical reasoning.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Geography

Course Code: GEOG-111

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- i. Define Geography and briefly discuss the branches of Human Geography.
- ii. Write down the main themes of Geography.
- iii. Write a short note on the origin of the solar system and earth.
- iv. Describe briefly the world time zones and differentiate standard and local time.
- v. Define mountains and describe various types of mountains.
- vi. Define weather and climate and discuss briefly the elements of weather and climate.

**Q.2. Answer the following questions. (3x10=30)**

- I. Write a detailed note on the evolution of Geography from the ancient to the modern World.
- II. Define atmosphere. Describe the structure and composition of the Atmosphere.
- III. Define Ocean Current. How they produce and explain the currents of the Atlantic Ocean.



## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

**Q.1. Answer the following short questions.**

**(15x2=30)**

سوال نمبر 1: درج ذیل سوالات کے مختصر جوابات تحریر کریں۔

- i. Differentiate between Angolo America and Latin America.  
i. اینگلو امریکہ اور لاطینی امریکہ میں فرق لکھیں۔
- ii. Briefly describe the continent Antarctica.  
ii. براعظم انٹارکٹیکا کی وضاحت کریں۔
- iii. Name atleast 10 countries from Africa.  
iii. افریقہ کے دس ممالک کے نام لکھیں۔
- iv. Highlight most populated cities from each continent.  
iv. ہر براعظم کے کثیر گنجان آباد شہروں کی نشاندہی کریں۔
- v. Elaborate Indo-Gangetic Plains.  
v. گنگا کے میدان کی وضاحت کریں۔
- vi. How you classify landforms into different groups.  
vi. زمینی خدوخال کو کیسے مختلف گروہوں میں تقسیم کرتے ہیں؟
- vii. Briefly describe about the geo-strategical importance of Pakistan.  
vii. پاکستان کی geo-strategical اہمیت پر جامع نوٹ لکھیں۔
- viii. Describe about ALPS Mountains.  
viii. ایلپس پہاڑوں کے بارے میں بیان کریں۔
- ix. Enlist major deserts of the world with their location.  
ix. جگہ کے لحاظ دنیا کے اہم صحراؤں کی فہرست بتائیں۔
- x. Divide Asia into different physiographic regions.  
x. ایشیاء کو مختلف جغرافیائی علاقوں میں تقسیم کریں۔
- xi. Identify types of soil found in different parts of the world.  
xi. دنیا کے مختلف علاقوں میں پائی جانے والی مٹی کی اقسام کی نشاندہی کریں۔
- xii. What is different between Fossil/non-renewable and alternative power resources?  
xii. غیر قابل تجدید اور متبادل طاقتی وسائل کے درمیان فرق کیا ہے؟
- xiii. Name large scale or heavy industries of the world.  
xiii. دنیا میں بڑے پیمانے پر فیکٹریوں / کارخانوں کے نام لکھیں۔
- xiv. Write about the major rivers of North America.  
xiv. شمالی امریکہ کے اہم دریاؤں کے بارے میں لکھیں۔
- xv. Elaborate Panama Canals.  
xv. نہر پاناما کے بارے میں لکھیں۔



**Q.2. Answer the following questions**

**(3x10=30)**

سوال نمبر 2: درج ذیل سوالات کے تفصیلی جواب تحریر کریں۔

- i. Divide North America into different physiographic regions and explain in detail western mountain region.  
(الف) شمالی امریکہ کو مختلف جغرافیائی علاقوں میں تقسیم کریں اور مغربی پہاڑی علاقے کی وضاحت کریں۔
- ii. What is the difference between a region and a realm? Discuss different types of world region.  
(ب) علاقے اور خطے کے درمیان کیا فرق ہے؟ دنیا کے مختلف اقسام کے علاقوں پر بحث کریں۔
- iii. Write comprehensive note on world economic regions.  
(ج) دنیا کے معاشی خطوں پر جامع نوٹ لکھیں۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Basic Field Surveying

Course Code: GEOG-204

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(15x2=30)**

i.	Name four parts of Theodolite.
ii.	Enlist the instruments used in plane table survey
iii.	Differentiate between Prismatic Compass and Surveyors Compass.
iv.	What is meant by Triangulation Surveys.
v.	Fore bearing of a line is $307^{\circ} 15'$ . Find the back bearing.
vi.	Whole Circle Bearing of line BC is $75^{\circ} 30'$ and line CD is $250^{\circ} 45'$ . Find the Included angle BCD.
vii.	Name three fields other than surveying in which Theodolites are used.
viii.	Differentiate between Radiation and Intersection methods in Plane Table Survey.
ix.	Write Demerits of Prismatic Compass Survey
x.	What is meant by Base Line in Theodolite Survey.
xi.	What is meant by Centering in Plane Table Survey. How it is done?
xii.	Write three errors of Plane Table Survey.
xiii.	What is Magnetic Declination?
xiv.	Differentiate between Fore Bearing and Back Bearing.
xv.	Name the types of Traversing.

**Answer the following questions. Illustrate your answer with the help of diagrams.**

**(3x10=30)**

<b>Q 2.</b>	Discuss various steps to start Plane Table Survey.
<b>Q 3.</b>	What is three point problem and how it can be adjusted in plane table surveying?
<b>Q 4.</b>	Describe the adjustment and working mechanism of Theodolite.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Geography

Course Code: GEOG-211

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- 1) What are the main branches of geography and their focus areas?
- 2) What is the significance of the Earth's revolution around the Sun?
- 3) Differentiate weather and climate write main elements of weather and climate?
- 4) What are mountains and how are they formed?
- 5) Define ocean current and write name any four currents of Atlantic Ocean.
- 6) Write the importance of tropical rainforests.

**Q.2. Answer the following questions.**

**(3x10=30)**

- 1) Define human geography. Also, briefly discuss the main branches of human geography.
- 2) Discuss the major types of the landforms and discuss any one type in detail.
- 3) Discuss different factors originating the ocean currents.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Men and Masculinities

Course Code: GS-206

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- I. Explain how masculinity has changed through history?
- II. Write down the difference between hegemonic masculinity and complicit masculinity?
- III. Differentiate between masculinity and femininity?
- IV. Briefly explain the purpose of Masculinity Studies.
- V. Discuss the social construction of masculinity in a society.
- VI. Write salient features of male marginalization?

**Q.2. Answer the following questions (3x10=30)**

- I. Explain Male Marginalization theory?
- II. What is toxic masculinity and how does it contribute to depression in men?
- III. Write in detail about men's responses to the Women's Movement?
- IV. Write the Model of Masculinity given by Robert Brannon?
- V. Write a detailed note on any ONE of the following:
  - a. Difference between Gender and Sex
  - b. Complicit Masculinity



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Sociology & Sociological Theories

Course Code: GS-207

Time: 3 Hrs. Marks: 60

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**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

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**Q.1. Answer the following short questions.**

**(5x6=30)**

- |      |                                      |
|------|--------------------------------------|
| i.   | Key contributions of Karl Marx       |
| ii.  | Stratification and Social Class      |
| iii. | Concept of Ibn Khaldun               |
| iv.  | Georg Simmel's key contributions     |
| v.   | Structural theory by Anthony Giddens |

**Answer the following questions**

**(3x10=30)**

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**Q 2. What is sociology, and how does it explain the concept of social change?**

**Q 3. What is the difference between classical and contemporary theory, and how can this distinction be illustrated with examples?**

**Q 4. How does the concept of structural functionalism explain the role of societal institutions in maintaining social stability, with an example of the family unit?**



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Gender and Population

Course Code: GS-209

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- i. Write a short note on gender differences as regards to nutrition.
- ii. What are the effects of female fertility?
- iii. Write a brief note on antenatal care.
- iv. What is sustainable development? How does it relate with issue of population growth?
- v. What are the effects of migration on population?
- vi. What are the gender issues in urbanization?

**Q.2. Answer the following questions (3x10=30)**

- i. Write a detailed note on the needs and challenges of family planning.
- ii. What are the current statistics of maternal mortality? Write a note on the reasons of high maternal mortality.
- iii. Write a detailed note on National Population Policy. Discuss.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Gender and Health

Course Code: GS-210

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(5x6=30)**

- i. What is the gender gap in life expectancy of men and women? Write briefly on issues of male-female infertility.
- ii. What is menarche? Does genetics play any role in triggering menarche?
- iii. How does child marriage impact health of the mother?
- iv. Write a short note on the structure of healthcare system in Pakistan.
- v. How does poverty impact issues of gender and health?

**Q.2. Answer the following questions**

**(2x15=30)**

- i. Throw light on the issues and challenges of maternal and reproductive health, keeping in mind the demographics of developing and under-developed countries.
- ii. What are the issues of gender and health in South Asia? Write in detail with reference to the regional cultural context.





**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(15x2=30)**

- i. Write down fourth state of matter.
- ii. The Spinning motion of a body about its axis is called.
- iii. Define Theory.
- iv. What is the role of statistics in research?
- v. Write down Laws of Motion.
- vi. Define Law of Conversation of Energy.
- vii. Write down the senses of light.
- viii. Define regular and irregular reflection.
- ix. Draw a typical animal cell.
- x. Define food chain.
- xi. Define blood circulatory system.
- xii. What is a difference between metals and non metals.
- xiii. Give one method far the preparation of oxygen Gas.
- xiv. Define Diegetic system.
- xv. Differentiate between arteries and vein.

**Q.2. Answer the following questions**

**(3x10=30)**

- i. Describe the execrating system of Man.
- ii. Write a note on Biotic and Abiotic Components of Ecosystem.
- iii. Define Structure of Eye and Camera.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Introduction to Social Work

Course Code: GS-212

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Define the following questions with examples. (6x5=30)**

- i. List the challenges faced by social workers in the modern era.
- ii. Define "mental health" in the context of social work.
- iii. What are the primary objectives of social work?
- iv. What is the process of casework?
- v. What are the three main levels of social work practice?
- vi. Name two fields where social workers are commonly employed.

**Q.2. Answer the following questions (3x10=30)**

- i. What are the principles of social work? Do you think they guide workers to address community issues?
- ii. Evaluate the challenges and opportunities for social work in Pakistan, focusing on areas such as poverty alleviation and education.
- iii. What is the relationship between sociology and social work? Elaborate in context with any sociological theory.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to History

Course Code: HIS-111

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

Q.1. Write short notes on the following:

(6x5=30)

سوال نمبر 1: درج ذیل سوالات کے مختصر جواب تحریر کریں۔

i. Urdu Hindi Controversy

i۔ اردو ہندی تنازعہ

ii. Indian councils Act 1861.

ii۔ انڈین کونسلز ایکٹ 1861

iii. Partition of Bengal 1905.

iii۔ تقسیم بنگال 1905

iv. Khilafat Movement

iv۔ تحریک خلافت

v. Simon Commission

v۔ سائمن کمیشن

vi. Communal Award 1932

vi۔ کمیونل ایوارڈ 1932

Answer the following questions.

(2x15=30)

درج ذیل سوالات کے تفصیلی جواب تحریر کریں۔

Q. No. 2. Describe the significance of Lucknow Pact 1916.

سوال نمبر 2۔ لکھنؤ پکٹ 1916 کی اہمیت کو بیان کریں۔

Q. No. 3. Describe the services of Quaid-i-Azam for the cause of Pakistan.

سوال نمبر 3۔ پاکستان کے لئے قائد اعظم کی خدمات کو بیان کیجئے۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Muslim Rule in South Asia (712-1526)

Course Code: HIS-204

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

Q.1. Answer the following short questions.

(5x6=30)

سوال نمبر 1: درج ذیل سوالات کے مختصر جوابات تحریر کریں۔

i. Who was the founder of the Khilji dynasty?

i۔ خلجی خاندان کے بانی کون تھے؟

ii. Who was Alauddin Khilji?

ii۔ علاؤ الدین خلجی کون تھے؟

iii. What was the role of the Sufi saints in South Asia?

iii۔ جنوبی ایشیا میں صوفی بزرگوں کا کیا کردار تھا؟

iv. When did the Battle of Panipat Fought ?

iv۔ پانی پت کی جنگ کب ہوئی؟

v. Who was Babur?

v۔ بابر کون تھا؟

Answer the following questions.

(2x15=30)

درج ذیل سوالات کے جوابات دیں۔

Q. No. 2. Analyze the role of military campaigns and conquests in the expansion of Muslim rule in the Indian subcontinent during the period from 712 to 1526.

سوال نمبر 2۔ 712 سے 1526 کے دوران ہندوستانی ذیلی برصغیر میں مسلم حکمرانی کے پھیلاؤ میں فوجی مہمات اور فتوحات کے کردار کا تجزیہ کریں۔

Q. No. 3. How did the administration of the Delhi Sultanate differ from that of the earlier Hindu kingdoms in South Asia?

سوال نمبر 3۔ دہلی سلطنت کے انتظامیہ کا جنوبی ایشیا کے قدیم ہندو بادشاہتوں کے انتظامیہ سے کس طرح فرق تھا؟



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Foreign Policy of Pakistan (1947-1997)

Course Code: HIS-205

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

Q.1. Answer the following short questions.

(5x6=30)

سوال نمبر 1: درج ذیل سوالات کے مختصر جوابات تحریر کریں۔

1. Warsa Pact

1. وارسا معاہدہ

2. SEATO

2. سیٹو

3. Indus-Basin Treaty

3. سندھ طاس معاہدہ

4. Liaqat-Nehru Pact 1950

4. لیاقت نہرو معاہدہ 1950

5. Simla Agreement

5. شملہ معاہدہ

Answer the following questions

(2x15=30)

درج ذیل سوالات کے جوابات تحریر کریں۔

Q. No. 2. Discuss in detail the strategic importance of Pakistan.

2. پاکستان کی دفاعی حکمت عملی کی اہمیت پر تفصیل سے بحث کریں۔

Q. No. 3. Discuss the major determinants of Pakistan's Foreign Policy.

3. پاکستان کی خارجہ پالیسی کے بنیادی اصولوں پر تبادلہ خیال کریں



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Government and Politics in Pakistan-II (1971-2000)

Course Code: HIS-206

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

Q.1. Answer the following short questions.

(5x6=30)

سوال نمبر 1: درج ذیل سوالات کے مختصر جوابات تحریر کریں۔

i. Simla Agreement 1972

i۔ شملہ معاہدہ 1972

ii. Constitution 1973

ii۔ 1973 کا آئین

iii. Pakistan National Alliance

iii۔ پاکستان نیشنل الائنس

iv. MRD

iv۔ ایم آر ڈی

v. Kargil Conflict

v۔ کارگل تنازعہ

Answer the following questions

(2x15=30)

درج ذیل سوالات کے جوابات تحریر کریں۔

Q. No. 2. Discuss the causes behind the separation of East Pakistan.

سوال نمبر 2۔ مشرقی پاکستان کی علیحدگی کے محرکات پر بحث کریں۔

Q. No. 3. Examine the Islamization of Zia ul Haq.

سوال نمبر 3۔ ضیاء الحق کی اسلامائزیشن کا جائزہ لیں۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Application of modern tech. in sports (Gen 4)

Course Code: HPE-211

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- i. Hawkeye in cricket
- ii. TTR (Table Tennis Review)
- iii. Goal line technology
- iv. Protective gear in Rugby
- v. Pros and Cons of Artificial turf
- vi. Uses of A 12 Camera

**Q.2. Answer the following questions**

**(3x10=30)**

- i. In your view, what technological advantage does Pakistan possess in cricket compared to other sports?
- ii. Write a detailed note on technology used in FIFA World Cup Qatar 2022.
- iii. Explain different camera systems installed in sports venues.





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Administration and Management in Sports (Found 7)

Course Code: HPE-212

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

### Q.1. Answer the following short questions.

(6x5=30)

سوال نمبر 1:

درج ذیل سوالات کے مختصر جوابات تحریر کریں۔

- Why Interviews are important in any organization for hiring any new post?  
i. کسی بھی نئی پوسٹ پر فائز ہونے کے لئے انٹرویو اور تنظیم کیوں ضروری ہے؟
- What do you believe are the key strengths of an administrative manager?  
ii. انتظامی مینجر کی کیا قوت ہے جس کے بارے میں آپ یقین رکھتے ہیں؟
- How do you handle and motivate the different personalities of your office team?  
iii. آپ اپنی دفتری ٹیم کی مختلف شخصیات کی کیسے حوصلہ افزائی کرتے ہیں اور انہیں کیسے سنبھالتے ہیں؟
- What are the process of accomplishing the goals of any organization through the effective use of people and other resources?  
iv. اپنے مقصد کو بہتر بنانے کے لئے آپ موثر انداز والے لوگ اور مختلف ذرائع کے ذریعے کیسے عمل میں لاسکتے ہیں؟
- Training and development is very essential for growth and improvement of any Administration. How?  
v. کسی بھی انتظامیہ کو بہتر اور ترقی کے لئے ٹریننگ اور ڈویلپمنٹ کیوں ضروری ہے؟
- What are the principles of sports management?  
vi. سپورٹس مینجمنٹ کے اصول لکھیں۔

### Q.2. Answer the following questions

(3x10=30)

سوال نمبر 2:

درج ذیل سوالات کے مختصر جوابات تحریر کریں۔

- Describe briefly the Recruitment methods, and why Tests and Interviews are important in any organizations?  
i. بھرتی کا طریقہ کیا ہے؟ کسی بھی تنظیم کے لئے ٹیسٹ اور انٹرویو کیوں ضروری ہوتے ہیں؟
- What is difference between the Administration and Management? Write ten characteristics which make them different from each other.  
ii. انتظامیہ اور مینجمنٹ میں فرق لکھیں؟ کوئی سے دس خوبیاں بتائیں جو دونوں میں فرق کریں۔
- What do you believe are the key strengths of an administrative manager?  
iii. ایڈمنسٹریٹو مینجر کی اہم طاقتیں بتائیں جس پر آپ یقین رکھتے ہو؟



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Basics of Human Physiology (Foundation 8)

Course Code: HPE-213

Time: 3 Hrs. Marks: 60

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**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

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**Q.1. Answer the following short questions.**

**(6x5=30)**

- I. Cavities and Planes of Human Body
- II. Physiology of Adrenal Gland
- III. Functional anatomy of Small Intestine
- IV. Physiology of Autonomic Nervous system
- V. Physiology of Heart Sounds
- VI. Physiology of skeletal muscle in human body

**Q.2. Answer the following questions**

**(3x10=30)**

- I. Write a detailed note Physiology of Pituitary Gland in human body?
- II. Briefly explain the Physiology of Nervous system?
- III. Write a detailed note on motility of GIT?



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

سوال نمبر 1: مندرجہ ذیل آیات کا اردو/انگریزی میں ترجمہ کریں: (20)

Q.1. Translate the following Verses into Urdu or English Language.

1. خَلَقَ السَّمُوتِ وَ الْأَرْضَ بِالْحَقِّ تَعَالَى عَمَّا يُشْرِكُونَ
2. وَ اتَيْنَا مُوسَى الْكِتَابَ وَ جَعَلْنَاهُ هُدًى لِّبَنِي إِسْرَءِيلَ إِلَّا تَتَّخِذُوا مِنْ دُونِي وَكِيلًا
3. الْحَمْدُ لِلَّهِ الَّذِي أَنْزَلَ عَلَى عَبْدِهِ الْكِتَابَ وَ لَمْ يَجْعَلْ لَهُ عِوَجًا
4. إِلَى اللَّهِ مَرْجِعُكُمْ وَ هُوَ عَلَى كُلِّ شَيْءٍ قَدِيرٌ
5. نَحْنُ نَقُصُّ عَلَيْكَ أَحْسَنَ الْقَصَصِ بِمَا أَوْخَيْنَا إِلَيْكَ هَذَا الْقُرْآنَ وَ إِنْ كُنْتَ مِنْ قَبْلِهِ لَمِنَ الْغَافِلِينَ

سوال نمبر 2: "رب" کے ساتھ ضمائر متصلہ لگائیں اور ان کے معانی بتائیں: (10)

Q.2. Use attached pronouns with "رب" and give their meanings.

الفاظ	معانی	الفاظ	معانی
رَبُّ + هُ		رَبُّ + كُمْ	
رَبُّ + هُمْ		رَبُّ + كِ	
رَبُّ + هَا		رَبُّ + كُنَّ	
رَبُّ + هُنَّ		رَبُّ + ي	
رَبُّ + كَ		رَبُّ + نَا	

سوال نمبر 3: مندرجہ ذیل الفاظ کا اردو/انگریزی میں ترجمہ کریں: (10)

Q.3. Write the meanings of the following Qur'anic words.

الفاظ	معانی	الفاظ	معانی
أَنْفُسٍ		عَلِيمٌ	
مُغْفِرَةٌ		حَكِيمٌ	
الذِّئْبُ		الصُّلْحُ	
أَمْرٍ		أَجْرٌ	
نَارٍ		الْعَلَمِينَ	

سوال نمبر 4: مندرجہ ذیل الفاظ کی مدد سے واحد کی جمع لکھیں:

(10)

Q.4. Write the plural with the given words.

وجوہ، رازقین، أعداء، شہود، إخوة، أنفس، بروج، ظلال، مسحورون، قزی، آصال، امم، أبواب، أحادیث، ناظرین، أقمار، أبناء، اعناق، سماوات، ملل

واحد	جمع	واحد	جمع	واحد	جمع	واحد	جمع
ملة		ظل		ابن		برج	
قمر		قرية		أصيل		ناظر	
وجه		أمة		رازق		باب	
حدیث		شاهد		سماء		أخ	
نفس		مسحور		عنق		عدو	

سوال نمبر 5: آیات کو ان کے ترجمے سے لکیر کے ذریعے ملائیں:

(10)

Q.5. Match the verses with lines to the translation.

آیات	ترجمہ
1. إِنَّهُ كَانَ عَبْدًا شَكُورًا.	اور چوپائے اسی نے پیدا کئے.
2. مَا كُنَّا فِيهِ أَبَدًا.	کیونکہ شیطان انسان کا کھلا دشمن ہے.
3. وَ الْإِنْعَامَ خَلَقَهَا.	اور وہ ہر چیز کی پوری قدرت رکھتا ہے.
4. إِنَّ الشَّيْطَانَ لِلْإِنْسَانِ عَدُوٌّ مُّبِينٌ.	جس میں وہ ہمیشہ ہمیشہ رہیں گے.
5. وَ هُوَ عَلَى كُلِّ شَيْءٍ قَدِيرٌ.	اور وہ بڑے شکر گزار بندے تھے.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Citizenship Education (Human Rights)

Course Code: HR-213

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- I. Discuss the concept of Human Rights.
- II. Describe Human Rights in the light of the Magna Carta.
- III. Explain article 25A and 26 of the Constitution of Pakistan.
- IV. Describe fundamentals in freedom, and equality in Human Rights.
- V. Discuss the articles on the “rights to equality before the law” of UDHR.
- VI. How can UDHR be used to evaluate the practice and protection of human rights globally?

**Q.2. Answer the following questions (2x15=30)**

- I. Discuss the evolution of Human Rights
- II. Explain three key principles of Human Rights



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to International Relations

Course Code: IR-111 A

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- 1. Discuss the National Interest of a state**
- 2. Determine the status of Diplomacy in the post-cold war**
- 3. Elaborate theory of Liberalism**
- 4. Explain the concept of State System**
- 5. Define Diplomacy and explain its kinds**
- 6. Write down the characteristics of SAARC**

**Q.2. Answer the following questions**

**(3x10=30)**

- 1. Define International Relations. Discuss its nature scope.**
- 2. Discuss the techniques of Balance of Power.**
- 3. Explain Foreign Policy. What are the main determinants of Foreign Policy.**





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Introduction to International Relations

Course Code: IR-111

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- 1. Elaborate the determinants of Foreign Policy**
- 2. Explain International Law and its scope**
- 3. Write a short note on the evolution of State System**
- 4. Evaluate different types of diplomats**
- 5. Elaborate the role of Sovereignty in modern state system**
- 6. Write a note on Realism**

**Q.2. Answer the following questions**

**(3x10=30)**

- 1. Define International Relations. Discuss its significance.**
- 2. What is National Interest? Explain its types**
- 3. Write a note on the techniques of Balance of Power.**



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

سوال نمبر 1: درج ذیل سوالات کے مختصر جواب لکھیں۔ (6X5=30)

1. اصول تاریخ و سیرت نگاری پر مختصر مگر جامع نوٹ لکھیں۔
2. عہد سلاجقہ کے تعارف اور کارہائے نمایاں پر مختصر مگر جامع نوٹ تحریر کریں۔
3. خلافت اسلامی تاریخ کی اساس ہے، عباسی خاندان سے عثمانی خاندان کی طرف خلافت کی منتقلی پر جامع نوٹ لکھیں۔
4. سلطان شمس الدین ایتھش ایک عظیم مسلم حکمران تھے، ان کی دینی اور فوجی خدمات پر مختصر نوٹ تحریر کریں۔
5. عثمانی خلیفہ سلیمان قانونی کا دور سنہری دور سمجھا جاتا ہے، مختصر وضاحت کریں۔
6. شہاب الدین محمد غوری نے برصغیر میں سب سے پہلے مسلم حکومت کی داغ بیل ڈالی، مختصر نوٹ لکھیں۔

سوال نمبر 2: درج ذیل سوالات کے تفصیلی جواب لکھیں۔ (3x10=30)

1. سلطنت عثمانیہ کا پس منظر بیان کریں، نیز ارطغرل غازی اور عثمان غازی نے اس عظیم سلطنت کی تشکیل میں کیا کردار ادا کیا؟ مفصل نوٹ تحریر کریں۔
2. سلطان علاؤ الدین خلجی کا شمار برصغیر کے عظیم حکمرانوں میں کیا جاتا ہے۔ آپ کے دور سلطنت کی دینی، سیاسی، معاشی اور فوجی اصلاحات پر مفصل نوٹ تحریر کریں۔
3. مغل اعظم شہنشاہ محمد اکبر نے ہندوستان کو سیاسی، معاشی اور دفاعی لحاظ سے مستحکم نظام دیا مگر دین اکبری کے اجراء کے باعث دین اسلام کو خاطر خواہ نقصان پہنچایا۔ مفصل بحث کریں۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Tafseer-III

Course Code: ISE-205

Time: 3 Hrs. Marks: 60

Roll No. ....

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

(6X5=30)

سوال نمبر 1: درج ذیل سوالات کے مختصر جواب لکھیں۔

- i. اہل کتاب کے ساتھ کھانا کھانے کے پانچ احکام بیان کریں۔
- ii. ظہار سے کیا مراد ہے؟ کفارہ ظہار بیان کریں۔
- iii. وَمَا أَهْلٌ لِّغَيْرِ اللَّهِ بِہ کی وضاحت کریں۔
- iv. عقیدہ ختم نبوت سے متعلق ایک آیت مع ترجمہ لکھیں۔
- v. حراہ سے کیا مراد ہے؟ سورۃ المائدہ کی روشنی اس کی سزا بیان کریں۔
- vi. ازدواج مطہرات کے چند امتیازات ذکر کریں۔

(3x10=30)

سوال نمبر 2: درج ذیل سوالات کے تفصیلی جواب لکھیں۔

- i. سورۃ المائدہ کی روشنی میں حرمت خمر پر تفصیلی مضمون لکھیں۔
- ii. سورۃ الاحزاب کی روشنی میں اطاعت رسول کی ضرورت و اہمیت پر نوٹ لکھیں۔
- iii. درج ذیل آیت کا ترجمہ اور تشریح کریں۔  
يَا أَيُّهَا النَّبِيُّ اتَّقِ اللَّهَ وَلَا تُطِيعِ الْكَافِرِينَ وَالْمُنَافِقِينَ إِنَّ اللَّهَ كَانَ عَلِيمًا حَكِيمًا



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Islam and Modern Political Thoughts

Course Code: ISE-206

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

(6x5=30)

سوال نمبر 1۔ درج ذیل سوالات کے مختصر جوابات مطلوب ہیں۔

- (i) علم سیاست کی افادیت واضح کیجیے۔
- (ii) ریاست فرد کی حقیقی شخصیت کی ضامن ہوتی ہے۔ اس نظریہ کی وضاحت کیجیے۔
- (iii) اسلام کا تصور حاکمیت اور سیکولر جمہوریت میں فرق واضح کیجیے۔
- (iv) نظام خلافت کے خاتمہ کے نقصانات کو احاطہ تحریر میں لائیے۔
- (v) جمہوریت کے ارکان خمسہ ضبط تحریر کریں۔
- (vi) اسلام کا نظریہ ریاست بیان کیجیے۔

(3x10=30)

سوال نمبر 2۔ درج ذیل سوالات کے تفصیلی جوابات تحریر کریں۔

- (i) اسلام اور اشراقیت کے نظریہ سیاسی کا تقابل دلائل کی روشنی میں کیجیے۔
- (ii) عصر حاضر میں اسلامی قانون کی اہمیت و ضرورت پر سیر حاصل بحث کیجیے۔
- (iii) انتظامیہ کا مفہوم واضح کرتے ہوئے اس کی خوبیوں اور خامیوں کا بھی جائزہ لیجیے۔



### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

#### Q.1. Short questions

(5x6=30)

- 1) Obtain **step count** of following code segment.

```
for (i = 0; i < n; i = i + 3)
    temp;
```

- 2) The running time of a program is given by the expression  $5N^3 + 2N^2 + 4N + 3$ , where  $N$  is the input size. Determine the **upper bound** for the growth rate of the program using **Big- $O$**  notation. Specify the values of constants  $c$  and  $N_0$  to justify your answer.
- 3) An algorithm takes 2 seconds to process an input size of 1000. Assuming the running time of the algorithm is  $T(N) = 5N$ , how large a problem can be solved in one minute?
- 4) Convert  $M + N * O / P \% Q - R$  into its equivalent **pre-fix** form.
- 5) Represent the following **sparse matrix** in a **3-column** representation using arrays.

0	1	0	0	0	0
0	0	0	4	0	0
5	0	0	0	0	3
0	0	7	0	0	0
0	2	0	0	6	0

#### Q.2. Long questions

(3x10=30)

- 1) Apply **Quick Sort's partition algorithm** on the following array and show the contents of the array after **one partition step**, using the **first element (6)** as the **pivot**.

6	7	9	1	4	2	10	5	3	8
---	---	---	---	---	---	----	---	---	---

- a) What value will be returned by Quick Sort's partition algorithm after this partitioning step?
- b) Explain the **purpose** of this returned value in the Quick Sort algorithm.
- 2) A **Max Heap** of 6 elements is stored in the following array:

20	12	9	10	2	6
----	----	---	----	---	---

- 3) Given the following declaration of a **Singly-Linked-List**:

<pre>class Node {     friend class LinkedList; private:     int data;     Node* next; };</pre>	<pre>class LinkedList { private:     Node* head;           // Points to the first node. public:     void swapEnds (); // To be implemented. };</pre>
--	--

Implement the **swapEnds** member function of the **LinkedList** class. This function swaps the **first** and **last** nodes of the linked list. After the function is executed, the **first node** becomes the **last node**, and the **last node** becomes the **first node**.

**Examples:** The following lists demonstrate the expected results for various cases.

<b>list before swapEnds:</b>	<b>list after swapEnds:</b>
< empty >	< empty >
(17)	(17)
(1, 2)	(2, 1)
(1, 3, 4, 2, 5)	(5, 3, 4, 2, 1)

The implementation should **traverse the list only once**, without creating new nodes, modifying the data field, and while handling all boundary cases.



### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Solve the following:**

**(6x5=30)**

I.	Let $A = \begin{bmatrix} 3 & 2 & 3 \\ -1 & 3 & 2 \\ 0 & 4 & -2 \end{bmatrix}$ , $B = \begin{bmatrix} 2 & 3 & 1 \\ -1 & 2 & 3 \\ 1 & 2 & -2 \end{bmatrix}$ . Calculate $(A)^2 - 2AB$ .
II.	Determine the eigenvalues of the matrix $\begin{bmatrix} 2 & 0 & 1 \\ 0 & 3 & 0 \\ 1 & 0 & 2 \end{bmatrix}$ .
III.	Show that $\begin{bmatrix} 1 & 1 & 3 \\ 5 & 2 & 6 \\ -2 & -1 & -3 \end{bmatrix}$ is nilpotent. What is its nilpotency index?
IV.	Determine whether or not $T(x_1, x_2, x_3) = (x_1x_2, x_3)$ defines a linear transformation from $R^3$ to $R^2$ .
V.	Determine whether or not the given vectors $\{(1,0,-3), (0,2,1), (2,1,-2)\}$ form a basis for $R^3$
VI.	Evaluate $\begin{vmatrix} ab & a & a^2 \\ bc & b & b^2 \\ ca & c & c^2 \end{vmatrix}$ .

**Q.2. Solve the following:**

**(3x10=30)**

I.	Solve the following system by $LU$ -decomposition. $\begin{bmatrix} -3 & 12 & -6 \\ 1 & -2 & 2 \\ 0 & 1 & 1 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} = \begin{bmatrix} -33 \\ 7 \\ -1 \end{bmatrix}$
II.	Let $A = \begin{bmatrix} 3 & 3 & 1 \\ -6 & 3 & 5 \\ 4 & 2 & -3 \end{bmatrix}$ . Determine whether $A$ is invertible and, if so, determine $A^{-1}$ .
III.	Find an orthogonal matrix whose first row is $\left(\frac{1}{3}, \frac{2}{3}, \frac{2}{3}\right)$ .





### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Solve the following:**

(i)	Given two vectors $\vec{A} = (2, 2, -1)$ and $\vec{B} = (6, -3, 2)$ , find angle between $\vec{A}$ and $\vec{B}$ .	(5)
(ii)	A particle moves along the curve $x_1 = 2t^2, x_2 = t^2 - 4t, x_3 = 3t - 5$ , where $t$ is the time. Find the components of the particle's velocity and acceleration at time $t = 1$ in the direction of $\hat{i} - 3\hat{j} + 2\hat{k}$ .	(5)
(iii)	What is the divergence of a vector? Show that $\nabla^2 \left( \frac{1}{r} \right) = 0$	(2+3)
(iv)	Find $f_x, f_y$ and $f_{xx}$ if $f(x, y) = x \cos y + ye^x$	(5)
(v)	Define Abelian and Cyclic groups, gives at least two examples for each.	(3+2)
(vi)	Define permutation. Compute the product of $(1,5)(2,4)(1,4,3)(2,5)(4,2,1)$	(1+4)

**Solve the following:**

<b>Q.2</b>	Evaluate the integral $\int_{(0,1)}^{(1,2)} (x^2 - y)dx + (y^2 + x)dy$ along (a) a straight line from (0,1) to (1,2)      (b) the parabola $x = t, y = t^2 + 1$	(6)
<b>Q.3</b>	Apply Green's Theorem to evaluate the integral $\oint_C (y^2 dx + x^2 dy)$ where C: triangle bounded by $x = 0, x + y = 1$ and $y = 0$ .	(6)
<b>Q.4</b>	Calculate the surface integral of the scalar field $F(x, y, z) = z$ over the surface of paraboloid $z = 4 - x^2 - y^2$ above xy-plane	(6)
<b>Q.5</b>	Show that every subgroup of cyclic group is cyclic.	(6)
<b>Q.6</b>	If $H$ and $K$ are subgroups of an Abelian group $G$ , Show that $\alpha H + \beta K$ is also subgroup of $G$ .	(6)



### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. Solve the following:

(6x5=30)

(i)	Solve the following initial value problem $\frac{dy}{dx} = 1 + x + y^2 + xy^2, \quad y(1) = 0.$
(ii)	Solve the following differential equation by using integrating factor or otherwise $(2xy + e^x)dx = \frac{e^x}{y} dy.$
(iii)	Find the values of $m_1$ and $m_2$ so that the function $y = e^{m_1 x} + e^{m_2 x}$ is a solution of the differential equation $y'' + 4y' + 3y = 0.$
(iv)	Find the orthogonal trajectories of the given family of curves $y = x - 1 + ce^{-x}.$
(v)	Determine the appropriate form for a particular solution of the following differential equation $(D - 3)^2(D^2 + 16)y = xe^{3x} + x\sin 3x.$
(vi)	Find the power series solution of $y'' + x^2y = 0$ around the ordinary point $x = 0.$

Solve the following:

(5x6=30)

Q.2	Solve the following differential equation $3x\cos\left(\frac{y}{x}\right)dy - \left[2x\sin\left(\frac{y}{x}\right) + 3y\cos\left(\frac{y}{x}\right)\right]dx = 0.$
Q.3	Find the general solution to the following $y'' + 4y = 4\tan 2x.$
Q.4	Find the general solution of $y'' - 2y' + y = e^x \arcsin x.$ using variation of parameter method.
Q.5	Determine whether the given functions are linearly independent or dependent on $(-\infty, \infty)$ : $f(x) = 1, g(x) = \sin x, h(x) = \cos x.$
Q.6	Use the power series method to solve the given initial value problem. $(x - 1)y'' - xy' + y = 0 \quad y(0) = -2, y'(0) = 6.$

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED****Q.1. Solve the following:****(4x7.5=30)**

a) Solve the differential equation  $\frac{dy}{dx} = \frac{x^2 + 3x^2y^2 + y^2}{x^3y}$ .

b) Solve the initial value problem  $(y + x^4y^2)dx + xdy = 0$ ;  $y(1)=1$ .

c) Find the interval for which the given initial value problem

$\frac{d^2y}{dx^2} + (\tan x)y = e^x$ ,  $y(0) = 1$ ,  $y'(0) = 0$ , has a unique solution.

d) Suppose that  $y_1 = e^x$  and  $y_2 = e^{-x}$  are two solutions of a homogenous linear differential equation. Explain why  $y_3 = \cosh x$  and  $y_4 = \sinh x$  are also solutions of the equation.

**Solve the following:****(3x10=30)**

**Q2** Derive the method of Variation of parameters for linear second-order differential equation.

**Q3.** Find the series solution of  $\frac{d^2y}{dx^2} + x\frac{dy}{dx} + 2y = 0$  with centre of expansion at  $x_0 = 1$ .

**Q4.** Solve the given initial-value problem

$2y^{(2)} + 3y^{(1)} - 2y = 14x^2 - 4x - 11$ ,  $y(0) = y^{(1)}(0) = 0$ .



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Solve the following:**

**(6x5=30)**

- I. Show that the set  $G = \{x\hat{i} + y\hat{j} : x, y \in \mathbb{R}\}$  of vectors in a plane is an abelian group under vector addition.**
- II. Define a cyclic group, Also prove that every cyclic group is abelian.**
- III. Let  $\alpha = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 \\ 3 & 4 & 5 & 2 & 6 & 1 \end{pmatrix}$  Find all the elements of a cyclic group generated by  $\alpha$ .**
- IV. Show that  $d(x, y) = \frac{|x-y|}{1+|x-y|}$  ;  $\forall x, y \in \mathbb{R}$  is a metric on  $\mathbb{R}$ .**
- V. Show that  $U = \{(x, y) \in \mathbb{R}^2 : X^2 + Y^2 < 5\}$  is an open subset of  $\mathbb{R}^2$ , Where d is a usual metric on  $\mathbb{R}^2$ .**
- VI. Prove that the finite subset of a metric space has no limit points.**

**Solve the following:**

**(3x10=30)**

- Q2. If  $a_1, a_2, a_3, \dots, a_n$  and  $b_1, b_2, b_3, \dots, b_n$  are arbitrary real numbers, then prove the inequality**

$$(\sum_{k=1}^n a_k b_k)^2 \leq (\sum_{k=1}^n a_k^2)(\sum_{k=1}^n b_k^2)$$

- Q3. Show that  $(\mathbb{Q}, +)$  is an abelian group, but not Cyclic.**
- Q4. Prove that The Index and order of a subgroup of a finite group divides the order of the group.**



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Solve the following:**

**(6x5=30)**

- (i) Prove that if  $a$  and  $b$  are coprime, then the least common multiple of  $a$  and  $b$  is given by  $\text{lcm}(a, b) = \frac{ab}{\text{gcd}(a, b)}$ .
- (ii) Find the remainder when  $5^{43}$  is divided by 13.
- (iii) Prove that if  $a \equiv b \pmod{m}$  and  $c \equiv d \pmod{m}$ , then  $ac \equiv bd \pmod{m}$ .
- (iv) Solve the system of congruences:  $x \equiv 4 \pmod{7}$  and  $x \equiv 6 \pmod{11}$ . Find the smallest positive solution.
- (v) List some examples of perfect numbers, Mersenne primes, and Fermat numbers.
- (vi) Determine all integer solutions to the equation  $6x - 15y = 9$ .

**Q.2. Solve the following:**

**(3x10=30)**

- (i) Prove the Fundamental Theorem of Arithmetic and illustrate with an example how every integer greater than 1 is a unique product of prime numbers.
- (ii) Describe the process of finding the greatest common divisor (GCD) of two integers using the Euclidean algorithm. Use this method to find the GCD of 252 and 105, and express it as a linear combination of these integers.
- (iii) Given a number in decimal representation  $a = a_n \cdot 10^n + a_{n-1} \cdot 10^{n-1} + \dots + a_1 \cdot 10 + a_0$ , prove that  $9|a$  if and only if the sum of its digits  $a_n + a_{n-1} + \dots + a_1 + a_0$  is divisible by 9. Also provide two examples.

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED****Q.1. Solve the following:****(15x2=30)**

- i) Find the domain and range of the  $f(x) = \frac{x}{x^2 - 4x + 3}$ .
- ii) Prove that the function  $f(x) = x^4 + x^2 - 1$  is even.
- iii) Draw the graph of the function defined by  $f(x) = x^2 - 2$ .
- iv) Solve  $|2x - 3| \leq 9$ .
- v) If  $g(x) = x^3 + x^2$ ,  $h(x) = \frac{2}{x+1}$  then evaluate  $h \circ g$ .
- vi) Evaluate the inverse of  $f(x) = \frac{5x+9}{6}$ .
- vii) Determine whether the function  $f(x) = \frac{1}{x-1}$  is continuous at  $x = 1$  or not?
- viii) Define quotient rule of integration with example.
- ix) Evaluate derivative of  $x \cos x$  with respect to  $x$ .
- x) Explain the difference between a continuous function and a discontinuous function.
- xi) Evaluate  $\lim_{x \rightarrow 2} \frac{1 - \cos x}{\sin^2 x}$ .
- xii) Find  $\frac{dy}{dx}$  if  $xy + y^2 = 2$ .
- xiii) Compute derivative of  $(3x^4 + \tan x)^3$ .
- xiv) Compute  $\int x(\sqrt{x} + 1) dx$ .
- xv) Evaluate  $\int_0^3 \frac{dx}{x^2 + 9}$ .

**Q.2. Solve the following:****(5x6=30)**

- i) Prove that  $\lim_{x \rightarrow 0} \frac{\sqrt{x+a} - \sqrt{a}}{x} = \frac{1}{2\sqrt{a}}$ .
- ii) Find the values of  $m$  and  $n$ , so that the given function  $f$  is continuous at  $x = 3$ .

$$f(x) = \begin{cases} mx, & \text{if } x < 3 \\ n, & \text{if } x = 3 \\ -2x + 9, & \text{if } x > 3 \end{cases}$$

- iii) If  $y = e^x \sin(x)$ , then show that  $\frac{d^2y}{dx^2} - 2 \frac{dy}{dx} + 2y = 0$ .
- iv) Solve by partial fraction  $\int \frac{8dx}{(x-7)(x-3)}$ .
- v) Evaluate  $\int x^2 \sin(x) dx$ .





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Management

Course Code: MNG-211

Time: 3 Hrs.

Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- I. Leader versus Manager
- II. Job Specification
- III. Policy
- IV. Controlling
- V. Social Security
- VI. National Health Service

**Answer the following questions**

**(3x10=30)**

**Q.No.2:** Define management and explain in details the functions of management along with relevant real-life examples.

**Q.No.3:** Explain in detail the concept of training, its importance and key components of managerial training?

**Q.No.4:** Write a detailed note on managing change in local government?



### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Solve the following:**

**(6x5=30)**

i.	Let $A = \begin{bmatrix} 1 & 5 & -2 \\ 3 & 4 & 0 \\ 0 & -1 & 3 \end{bmatrix}$ , $B = \begin{bmatrix} 7 & 4 & -4 \\ 2 & 2 & 1 \\ 0 & 1 & 2 \end{bmatrix}$ . Calculate $A^2 - B^2$ .
ii.	Find the inverse of the matrix $\begin{bmatrix} -2 & -3 & -1 \\ 5 & 1 & 2 \\ 3 & 4 & -3 \end{bmatrix}$ if exists.
iii.	Let $u, v \in \mathbb{R}^2$ , $u = (x_1, x_2)$ , $v = (y_1, y_2)$ . Determine if $\langle u, v \rangle = x_1y_1 - x_1y_2 - x_2y_1 + 3x_2y_2$ is an inner product on $\mathbb{R}^2$ .
iv.	Determine whether or not the vectors $(2, 4, -3)$ , $(0, 1, 1)$ and $(0, 1, -1)$ form a basis for $\mathbb{R}^3$ .
v.	Find the matrix of the linear transformation $T: \mathbb{R}^3 \rightarrow \mathbb{R}^3$ defined by $T(x_1, x_2, x_3) = (x_2, -x_1, -x_3)$ with respect to the standard basis for $\mathbb{R}^3$ .
vi.	Show that $\begin{vmatrix} a+b & c & 1 \\ b+c & a & 1 \\ c+a & b & 1 \end{vmatrix} = 0$ .

**Q.2. Solve the following:**

**(3x10=30)**

i.	Use Cramer's rule to determine the solution of the following system of equations. $2x_1 - x_2 + 3x_3 = 3$ $3x_1 + x_2 - 5x_3 = 0$ $4x_1 - x_2 + x_3 = 3$
ii.	Use simplex method to find the optimal solution of the following linear programming problem. Maximize $z = 2x_1 + 5x_2$ subject to $2x_1 + x_2 \leq 5$ $3x_1 + 4x_2 \leq 6$ $x_1, x_2 \geq 0$
iii.	Find the eigenvalues and eigenvectors of the matrix $A = \begin{bmatrix} 2 & 2 & 1 \\ 1 & 3 & 1 \\ 1 & 2 & 2 \end{bmatrix}$ .



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Physical Education

Course Code: PE-211

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- i. Highlight the Aims and Objectives of Physical Education?
- ii. Explain Physical Education as an Academic Discipline?
- iii. Highlight Challenges in Physical Education?
- iv. Explain the Health Related Components of Fitness?
- V. Explain Health Benefits of Physical Activity?
- Vi. Define Locomotor Movements and Non Locomotor Movements?

**Q.2. Answer the following questions (3x10=30)**

- i. Define Leadership? Also explain in detail the Types of Leadership?
- ii. Explain Origin and Nature of Movement Education?
- iii. Explain Sociological and Psychological Interpretation of Physical Education?



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

سوال 1: مندرجہ ذیل اقتباسات میں سے صرف تین کا اردو ترجمہ لکھیے۔ (15)

- (الف) سخن بر این مقرر شد کہ یکی بہ تجسس ایشان بر رانده بودند، و مقام خالی مانده، تنی چند مردان واقعه دیده، جنگ آزموده، را بفرستادند.
- (ب) سایر حکما از تأویل این فرو ماندند، مگر درویشی کہ بہ جای آورد، و گفت: هنوز نگران است کہ ملکش با دگران است.
- (ج) ملک را رحمت آمد و از سر خون او در گذشت. وزیر دیگر کہ ضد او بود، گفت: ابنای جنس ما را نشاید، در حضرت پادشاهان، جز بہ راستی سخن گفتن. این ملک را دشنام داد، و ناسزا گفت.
- (د) یکی از ملوک بی انصاف پارسایی را پرسید: از عبادت‌ها کدام فاضل تر است؟ گفت: تو را خواب نیم روز، تا در آن یک نفس خلق را نیازی.
- (ه) چارہ ندانستند. حکیمی در آن کشتی بود، ملک را گفت: اگر فرمان دہی، من او را بہ طریقی خاموش گردانم. گفت: غایت لطف و کرم باشد.

سوال 2: مندرجہ ذیل اقتباسات میں سے صرف تین کا اردو ترجمہ و تشریح لکھیے۔ (15)

- (الف) دیده معنی گشا، ای ز عیان بی خبر  
لالہ کمر در کمر  
نیمہ آتش بہ بر  
می چکدش بر جگر  
شبم اشک سحر
- (ب) تیزترک گام زن، منزل ما دور نیست  
مہ ز سفر پا کشید  
صبح ز مشرق دمید  
جامہ شب بر درید  
در پس تل ارمید
- (ج) واماندہ شعاعی کہ گرہ خورد و شرر شد  
دارای نظر شد  
از سوز حیات است کہ کارش ہمہ زر شد
- (د) رفیقش گفت: ای یار خردمند  
دمادم خویشتن را بر فسان زن  
اگر خواهی حیات، اندر خطر زی  
ز تیغ پاک گوہر تیز تر زی
- (ه) جہان را ز یک آب و گل آفریدم  
من از خاک پولاد ناب آفریدم  
تو ایران و تاتار و زنگ آفریدی  
تو شمشیر و تیر و تفنگ آفریدی

سوال 3: سعدی شیرازی کی نثر نویسی کا جائزہ لیجیے۔ (15)

سوال 4: علامہ اقبال کے فارسی کلام پر اظہار رائے کیجیے۔ (15)



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Philosophy

Course Code: PHIL-277

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Briefly describe the following.**

**(6x5=30)**

- a. Concept of Utilitarianism given by J.S MILL
- b. Define Philosophy of Science
- c. What is normative Ethics
- d. Describe inductive and Deductive logic
- e. Concept of Determinism in Muslim Philosophy
- f. Discuss main divisions of Philosophy

**Q.2. Answer the following questions**

**(3x10=30)**

1. Define logic, discuss structure and different types of an arguments
2. Critically evaluate the Deontological concept of Ethics given by Kant in contemporary perspective
3. Evaluate the concept of Art, provide necessary details regarding the idealist theory of Art



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Briefly describe the following. (15x2=30)**

- i. What is meant by time dilation using the Lorentz transformation?
- ii. Write the formula for relativistic momentum.
- iii. How does the atomic number change in beta-minus decay?
- iv. How does gamma radiation differ from alpha and beta radiation?
- v. What is meant by the term "half-life" of a radioactive isotope?
- vi. Explain Moseley's law.
- vii. What is the role of inner-shell electrons in producing characteristic X-rays?
- viii. How does Bohr's model explain the emission spectra of hydrogen?
- ix. What is the name of the visible spectral lines of hydrogen?
- x. How was electron spin discovered experimentally?
- xi. How does electron spin contribute to the magnetic properties of an atom?
- xii. Which conservation laws are applied in Compton scattering?
- xiii. Which law explains the shift of the black body radiation peak with temperature?
- xiv. What is the value of emissivity for a perfect black body?
- xv. What are the main processes involved in laser action?

**Answer the following questions**

- Q2.** How did Einstein's explanation of the photoelectric effect demonstrate that light is quantized and behaves like particles? Briefly explain how this contributed to the rise of quantum physics (10)
- Q3.** Briefly describe the significance of the Schrödinger wave equation in quantum mechanics. What physical quantity is represented by the wave function  $\psi(x,t)$ ? (10)
- Q4.** (a) Define thermonuclear fusion. Describe the conditions necessary for fusion reactions to occur in the core of stars like the Sun.  
(b) Discuss the main challenges of achieving controlled thermonuclear fusion on Earth. (7+3)





**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(15x2=30)**

- (i)-** What is a black body? Explain briefly.
- (ii)-** How did Planck tackle the problem of black body radiation spectrum?
- (iii)-** If the detector in the Compton experiment is moved so that scattered X-rays are detected at an angle larger than  $45^\circ$ ? Does the wavelength of the scattered X-rays increase or decrease as the angle  $\theta$  increases?
- (iv)-** Find de-Broglie wavelength of a dust particle of mass  $10^{-9}\text{kg}$  drifting with a speed of  $2\text{cm/s}$ .
- (v)-** Why is the wave nature of matter not more apparent in our daily observations?
- (vi)-** State properties of matter waves.
- (vii)-** State correspondence principle. What is its limitation?
- (viii)-** Write down Schrodinger time independent wave equation by explaining all the terms used.
- (ix)-** State postulates of Bohr's theory of atomic structure.
- (x)-** What is the origin of characteristic X-rays?
- (xi)-** Name reverse process of X-ray production. What is inner shell transition?
- (xii)-** What is longest wavelength *i.e.* wavelength of least energetic photon in Balmer series?
- (xiii)-** What are basic differences between alpha, beta, and gamma rays?
- (xiv)-** If film is kept in a box, alpha particles from a radioactive source outside the box cannot expose the film, but beta particles can. Why?
- (xv)-** Is there any difference between beta particles and electrons emitted by photoelectric emission and thermionic emission?

**Answer the following questions**

**(3x10=30)**

- (i)-** What is photoelectric effect? Explain its experimental results, also show that why wave theory fails to explain photoelectric effect and what is Einstein photoelectric equation? (10)
- (ii)-** When an electron is trapped inside an infinitely deep potential well, show that energy of electron is quantized and electron spends more time in certain parts of the well than other. (10)
- (iii)-** A reference frame  $S'$  moves w. r. t. another frame  $S$  with uniform velocity  $v$ . Derive transformation equations giving  $x', y', z', t'$  in terms of  $x, y, z, t$  in Lorentz form. (10)





**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Briefly describe the following.**

**(15x2=30)**

1. What happens to an object's length as it moves near the speed of light in the direction of motion?
2. If a person were to look at a mirror in a spaceship moving at relativistic speeds, would they see the light reflect back to them faster or slower than if they were at rest?
3. If two observers are moving relative to each other at near the speed of light, does each observer see the other's clock running slower?
4. If two objects are moving in opposite directions at  $0.6c$  relative to each other, what is their relative velocity?
5. What is the mass-energy equivalence formula?
6. What is a fission chain reaction?
7. What are the limitations of the free electron gas model?
8. Differentiate between semiconductors and insulators.
9. How does temperature affect the reverse characteristics of semiconductors?
10. Mention four characteristics of the laser.
11. Write down Pauli Exclusion Principle.
12. Differentiate between spontaneous emission and stimulated emission with the aid of a diagram.
13. Write down the Maxwell Boltzmann distribution function.
14. Why does the classical theory fail to explain the specific heat of solids?
15. Write down the postulates of the Bohr atomic model

**Answer the following questions**

**(3x10=30)**

**Q2. Discuss the formation of molecular bond in detail.**

**Q3. Define superconductivity and describe its key properties. How do these properties distinguish superconducting materials from normal conductors?**

**Q4. Explain gamma decay and the characteristics of gamma rays. How does gamma decay differ from alpha and beta decay?**



### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Answer the following short questions.**

**(15x2=30)**

- (i) Differentiate between intrinsic and extrinsic semiconductors?
- (ii) How does adding a pentavalent impurity convert pure silicon (Si) into an *n*-type semiconductor?
- (iii) Describe the condition for forming an electron-hole pair in a semiconductor.
- (iv) Draw an energy band diagram illustrating the formation of a *pn* junction and depletion region.
- (v) How do forward and reverse bias voltages regulate the current flow through a *pn* junction?
- (vi) Why is a DC power supply essential for electronic circuits?
- (vii) Describe the purpose of a filter circuit in a power supply.
- (viii) Draw the *I-V* characteristic curves of an ideal diode.
- (ix) How does a Zener diode differ from a rectifier diode?
- (x) Draw symbols for light-emitting and photodiode and mention the appropriate biasing conditions for their normal operation.
- (xi) What is the purpose of the emitter, base, and collector in the bipolar junction transistor (BJT)?
- (xii) If the collector current is 1 mA and the base current is 10  $\mu$ A, what is the emitter current?
- (xiii) What is the value of the collector current when a transistor is in a saturation state?
- (xiv) Why is the *j* operator important in the AC circuit analysis?
- (xv) State Thevenin's theorem.

**Q.2. Answer the following questions**

1. (a) Describe how electron and hole currents are generated in an intrinsic (pure) semiconductor. Also, explain how doping with impurities alters these currents and transforms the intrinsic semiconductor into an *n*-type or *p*-type material. (5)  
(b) Explain the formation of the depletion region in a *pn*-junction with the help of an energy band diagram. (5)
2. (a) How does a Zener diode regulate voltage? Explain its working with the help of a well-labeled *V-I* characteristic curve. Additionally, draw and describe the Zener equivalent circuit (6)  
(b) Discuss the operation of a photodiode. (4)
3. (a). Describe the structure and basic operation of bipolar junction transistor (BJT). (5)  
(b) What is the amplification process? Develop an AC equivalent circuit to describe the working of a basic transistor amplifier and derive the equation for voltage gain. (5)



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Political Science

Course Code: POL-111

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

1. What is national politics?
2. What is political economy?
3. What is political socialization?
4. Differentiate between 'De Jure and De Facto Sovereignty'.
5. What is federalism?
6. What is rule of law?

**Q.2. Answer the following questions**

**(3x10=30)**

1. What is an approach? Describe traditional approaches to the study of Political Science?
2. What is Sovereignty? Differentiate Islamic and Western concept of sovereignty?
3. What is Executive? Explain various functions and powers of it?



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Political Systems (Developing)

Course Code: POL-202

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- i. What is the Constitution?
- ii. Developing countries.
- iii. Judicial activism
- iv. Political process
- v. Executive
- vi. Functions of the Legislature

**Q.2. Answer the following questions**

**(3x10=30)**

- i. Critically evaluate functions of the Council of Common Interests.
- ii. Analyze the Indian Federal System.
- iii. Describe the powers and functions of the Iranian Parliament (Majlis).





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Pakistan Movement

Course Code: POL-203

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

Q.1. Answer the following short questions.

(6x5=30)

سوال نمبر 1۔ درج ذیل سوالات کے مختصر جوابات مطلوب ہیں۔

- What were the effects of the British rule in Pakistan?  
انگریزوں کی حکومت کے پاکستان میں کیا اثرات مرتب ہوئے؟
- What were the Gandhi Jinnah talks held in 1944 at Bombay to discuss?  
1944 میں بمبئی میں ہونے والے گاندھی جناح مذاکرات کیا تھے؟
- What is the greatest impact of World War 2 in the modern world?  
جہد دنیا میں دوسری جنگ عظیم کا سب سے بڑا اثر کیا ہے؟
- Analyze the politics of sub-continent in the 3<sup>rd</sup> decade of 20<sup>th</sup> century.  
20 ویں صدی کی تیسری دہائی میں برصغیر کی سیاست کا تجزیہ کریں۔
- Explain the role of Aligarh movement towards Pakistan Movement.  
تحریک پاکستان میں علی گڑھ کے کردار کی وضاحت کریں۔
- What were the effects of the British Raj on Indian Muslims?  
ہندوستانی مسلمانوں پر برطانوی راج کے کیا اثرات تھے؟

Q.2. Answer the following questions

(3x10=30)

سوال نمبر 2۔ درج ذیل سوالات کے تفصیلی جوابات تحریر کریں۔

- What were the key factors that led to the Pakistan movements? And how did the Muslims league contribute to the Pakistan movement?  
وہ کون سے عوامل تھے جن کی وجہ سے تحریک پاکستان شروع ہوئی؟ اور مسلم لیگ نے تحریک پاکستان میں کیا کردار ادا کیا؟
- The Muslims demanded for the separate homeland as they were left no other option to survive as a nation. illustrate this statement in the light of sufferings and cause which led them to demand the separate Muslim homeland.  
مسلمانوں نے علیحدہ وطن کا مطالبہ کیا کیونکہ ان کے پاس بحیثیت قوم زندہ رہنے کا کوئی دوسرا راستہ نہیں بچا تھا۔ اس بیان کو مصائب اور اسباب کی روشنی میں بیان کریں جس کی وجہ سے انہوں نے علیحدہ مسلم وطن کا مطالبہ کیا۔
- What was the impact of World War 2<sup>nd</sup> on the world scenario?  
دوسری جنگ عظیم کا عالمی منظر نامے پر کیا اثر ہوا؟



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Political Science

Course Code: POL-211

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- i: What is Political Science? Write any two definitions.
- ii: Differentiate State and Society?
- iii: Write the concept of Sovereignty including Austin definition.
- iv: Differentiate De facto and De Jure kinds of Sovereignty
- v: Brief the Parliamentary and Presidential form of Government.
- vi: What is Power?

**Q.2. Answer the following questions**

**(3x10=30)**

- i: What is Nation? Elaborate its elements.
- ii: Define the Federation and its Responsibilities.
- iii: What is the Government? Explain it's organs.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Political Science-II (MAS)

Course Code: POL-222

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- i. Definition of Foreign Policy
- ii. Treaty of Westphalia
- iii. Definition of International Relations
- iv. Meaning of Public Opinion
- v. Meaning of Political Party
- vi. Islamophobia

**Q.2. Answer the following questions**

**(3x10=30)**

- i. Explain media as fourth pillar of a democratic state.
- ii. Explain the role of media in the formation of foreign policy.
- iii. Highlight the merits of Multi-Party System.





**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- i. What are the common CV mistakes to avoid?
- ii. What is the purpose of a cover letter?
- iii. When a follow-up message should be sent after an interview?
- iv. What are the key strategies for reading comprehension?
- v. What are the common job interview questions?
- vi. What is the structure of a good essay?

**Q.2. Answer the following questions (3x10=30)**

1. What are the essential components that should be included in a professional CV, and how should they be organized for maximum impact?
2. Write an essay on anyone of the following topics  
Role of Social Media  
Education System in Pakistan  
Fashion Industry
3. What are the essentials you will keep in mind to appear for a successful job interview?



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Political Systems (Developing) India & Sri Lanka

Course Code: PS-212

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

Q.1. Write short note on the following.

(6x5=30)

سوال نمبر 1: درج ذیل پر مختصر نوٹ تحریر کریں۔

i. Meaning of a Political System

سیاسی نظام کا مفہوم

ii. The Constitutional foundations of Indian Political system

انڈیا کے سیاسی نظام کی دستوری بنیادیں

iii. The role of public participation in the political culture of Sri Lankan

سری لنکا کی سیاسی ثقافت میں عوامی شمولیت کا کردار

iv. A brief profile of two major political parties in India

انڈیا کی دو اہم سیاسی جماعتوں کا مختصر خاکہ

v. Socio-economic factor in Sri Lankan Political Environment

سری لنکا کے سیاسی ماحول میں سماجی و معاشی عنصر کا کردار

vi. Nature of civil-military relations in India

انڈیا میں سول اور فوجی تعلقات کی نوعیت

Q.2. Answer the following questions

(3x10=30)

سوال نمبر 2: درج ذیل سوالات کے جوابات تحریر کریں۔

i. Write a detailed note on the historical background of Indian Political System.

انڈیا کے سیاسی نظام کے تاریخی پس منظر پر تفصیلی نوٹ لکھیں۔

ii. Explain the salient features of the Sri Lankan Constitution.

سری لنکا کے آئین کی نمایاں خصوصیات بیان کریں

iii. Critically evaluate the role of judiciary in India.

انڈیا میں عدلیہ کے کردار کا تنقیدی جائزہ پیش کریں



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Pakistan Movement

Course Code: PS-213

Time: 3 Hrs. Marks: 60

Roll No. ....

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

Q.1. Write short note on the following.

(6x5=30)

سوال نمبر 1: درج ذیل پر مختصر نوٹ تحریر کریں۔

- Give a brief introduction of Urdu-Hindi controversy 1867.  
i۔ اردو ہندی تنازعہ (۱۸۶۷) کا مختصر تعارف پیش کریں۔
- What were the principle demands of Indian National Congress at the time of its establishment?  
ii۔ قیام کے وقت انڈین نیشنل کانگریس کے بنیادی مطالبات کیا تھے؟
- Write any five provision of Indian Council Act (Minto-Morley reforms) 1909.  
iii۔ انڈین کونسل ایکٹ (منٹو مارلے ریفرمز) ۱۹۰۹ کی کوئی پانچ دفعات تحریر کریں۔
- What was the reaction of the Indians towards Simon Commission?  
iv۔ سائمن کمیشن پر ہندوستانیوں کا رد عمل کیا تھا؟
- When and why did the Muslims celebrate the "Day of Deliverance"?  
v۔ مسلمانوں نے یوم نجات کب اور کیوں منایا؟
- Write briefly the significance of Lucknow Pact for the Indian Muslims.  
vi۔ ہندوستانی مسلمانوں کے لیے معاہدہ لکھنؤ کی اہمیت مختصراً بیان کریں۔

Answer the following questions

(3x10=30)

درج ذیل سوالات کے جوابات تحریر کریں۔

Q.2. Discuss the evolution of Two Nations Theory in political history of the sub continent.

سوال نمبر ۲: برصغیر کی سیاسی تاریخ میں دو قومی نظریہ کے ارتقاء پر بحث کریں۔

Q.3. Elaborate whether Khilafat Movement was religious or political movement and what was its impact on the Indian politics.

سوال نمبر ۳: تحریک خلافت مذہبی یا سیاسی تحریک تھی اور ہندوستانی سیاست پر اس کے اثرات کیا تھے؟ وضاحت سے بیان کریں۔

Q.4. Critically analyze the Government of India Act 1935.

سوال نمبر ۴: گورنمنٹ آف انڈیا ایکٹ ۱۹۳۵ کا تنقیدی تجزیہ پیش کریں۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to International Relations

Course Code: PS-214

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Write short note on the following.**

**(5x6=30)**

**I. What is International Relations?**

**II. What is neo Realism?**

**III. Define the national interest.**

**IV. Define the Behavioralism.**

**V. What is national interest?**

**Q.2. Answer the following questions**

**(2x15=30)**

**I. Write in detail the scope of international Relations.**

**II. Discuss the 'Modern state system and sovereignty'.**



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Write short note on the following.**

**(15x2=30)**

- I. Define Geography.
- II. Discuss about the Rotation of Earth and Associated Changes.
- III. Who is the father of Geography?
- IV. Define Map and Enlist its Types.
- V. Discuss about the Shape of the Earth.
- VI. Explain about International Dateline.
- VII. What is the Big Bang Theory?
- VIII. Enlist all the Planets in our Solar system and Which Planet is the closest to Sun?
- IX. Explain Solar Eclipse.
- X. What is the difference between, Tides, Currents and Waves?
- XI. Enlist the currents of Pacific Ocean and write a note on Humboldt Current.
- XII. Describe about Mantle of Earth.
- XIII. Briefly explain the major Geological Eras.
- XIV. What are the Mountain Building Movements?
- XV. What is Biome? Discuss about the Forest Biomes.

**Answer the following questions**

**(3x10=30)**

- Q.2** Define physical Geography and discuss the main branches of Physical Geography.
- Q.3** Write a Comprehensive note on Rotation and Revolution of the Earth.
- Q.4** Write notes on the following:
- I. Geographical Coordinates
  - II. Atmospheric Structure





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to History

Course Code: PS-216

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Write short note on the following.**

**(6x5=30)**

- I. What is the difference between 'historic' and 'historical'?
- II. History provides us a sense of our own identity. Explain
- III. What kind of history is subjective history?
- IV. How 'chronology' helps us to understand our past?
- V. What is meant by historical determinism?
- VI. What is the difference between social and political history?

**Answer the following questions**

**(2x15=30)**

**Q.2. Define historical evidence. Discuss in detail the types and significance of primary sources in history writing.**

**Q.3. "Viewing history through the lens of multiple causality is a basic ingredient of thinking historically." Elaborate this statement to explain why it is important for historians to find out multiple causes behind the occurrence of any historical event?**



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Pakistan Studies (Compulsory 2)

Course Code: PST-111

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

Q.1. Write short note on the following.

(5x6=30)

سوال نمبر 1: درج ذیل پر مختصر نوٹ تحریر کریں۔

I. Partition of Bengal 1905

I- تقسیم بنگال 1905

II. Communal Award

II- کمیونل ایوارڈ

III. Indus Basin Treaty

III- سندھ طاس معاہدہ

IV. Salient features of 1962 Constitution

IV- 1962 کے آئین کے نمایاں خدوخال

V. Z. A. Bhutto

V- زیڈ اے بھٹو

Answer the following questions

(2x15=30)

درج ذیل سوالات کے جوابات تحریر کریں۔

Q. No. 2. Describe the historical significance of Lucknow Pact.

سوال نمبر 2- لکھنؤ پیکٹ کی تاریخی اہمیت بیان کریں۔

Q. No. 3. Discuss Pakistan's relations with neighboring countries.

سوال نمبر 3- پاکستان کے ہمسایہ ممالک کے ساتھ تعلقات پر بحث کریں۔





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Modeling and Simulation

Course Code: SI-241

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

a)	What is the difference between static and dynamic simulation models?
b)	Define stochastic simulation and give an example of its use in real-world scenarios.
c)	Discuss the role of feedback loops in simulation models.
d)	What are the advantages of using agent-based modeling in simulations?
e)	Explain the term simulation time. How is it handled in continuous versus discrete systems?
f)	What is the significance of parameter estimation in simulation models?

**Q.2. Answer the following questions**

**(3x10=30)**

a)	Discuss the Bungartz method of solving large-scale simulation problems. Include its applications in complex systems.
b)	Explain how simulation optimization is applied in improving system performance. Provide an example.
c)	Discuss the concept of queuing theory and its relevance to simulation modeling.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Sociology

Course Code: SOC-201A

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

1. Define sociology.
2. What is the difference between sociology and common sense?
3. Name any two elements of culture.
4. What is an ascribed status? Give an example.
5. Define crime.
6. Name two types of social groups.

**Q.2. Answer the following questions**

**(3x10=30)**

1. Explain the relationship of sociology with other social sciences.
2. Define socialization. Discuss its importance in human life.
3. What is bureaucracy? Discuss its main characteristics.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Contemporary Sociological Theory

Course Code: SOC-204

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- i. What is the difference between manifest and latent functions according to Merton?
- ii. What does Husserl mean by the term "lifeworld"?
- iii. What role does authority play in Dahrendorf's conflict theory?
- iv. Define Mead's distinction between the "I" and the "Me."
- v. What is the difference between liberal feminism and radical feminism?
- vi. What is the sociological imagination, as proposed by C. Wright Mills?

**Q.2. Answer the following questions**

**(2x15=30)**

- i. Discuss the concept of "intersubjectivity" in Schutz's work and its importance in understanding social reality.
- ii. Explain the symbolic interactionist perspective, focusing on the contributions of Cooley and Mead to the understanding of human interaction.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Sociology

Course Code: SOC-211

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

Q.1. Answer the following short questions.

(6x5=30)

- i. Relation of **Sociology** with **Psychology**
- ii. Significance of **Socialization**
- iii. **Illiteracy** as a **Social Problem**
- iv. **Dysfunctions** and their **latent functions**
- v. **Media** as an **Agent of Socialization**
- vi. **Mores** and **Folkways**

Q.2. Answer the following questions

(3x10=30)

1. Define **Self**. Write a note on **Theory of Self Development** by **George Herbert Mead**?
2. Write a note on following two **Cultural Elements**? (i) **Symbols** (ii) **Beliefs**
3. Define **Culture**. Write a note on **Types of Culture**?



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Fall 2024

Roll No. ....

Paper: Introduction to Sociology

Course Code: SOC-211

Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

Q.1. Answer the following short questions.

(6x5=30)

- i. Sociological Perspectives and its benefits
- ii. Values and value inconsistency
- iii. Subculture and Counterculture
- iv. Socialization and its importance
- v. Media as an agent of socialization
- vi. Latent Functions of Crime

Q.2. Answer the following questions

(3x10=30)

1. Define Self. Write a note on Theory of Self Development by George Herbert Mead?
2. Write a note on following two Cultural Elements? (i) Symbols (ii) Beliefs
3. Define Culture. Write a note on Types of Culture?



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Social Case Work

Course Code: SOCW-205

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

Q.1. Answer the following short questions.

(6x5=30)

سوال نمبر 1: درج ذیل سوالات کے مختصر جوابات تحریر کریں۔

1. What is Social Case Work, and why is it important?

سوشل کیس ورک کیا ہے، اور یہ کیوں اہم ہے؟

2. List and explain different techniques used in Social Case Work.

سوشل کیس ورک میں استعمال ہونے والی مختلف تکنیکوں کی فہرست بتائیں اور وضاحت کریں۔

3. What are the key components of Social Case Work?

سوشل کیس ورک کے اہم اجزاء کیا ہیں؟

4. What are the essential conditions for effective interviewing?

موثر انٹرویو کے لیے ضروری شرائط کیا ہیں؟

5. Why are case histories important in Social Case Work?

سوشل کیس ورک میں کیس ہسٹری کیوں اہم ہیں؟

6. What are the latest trends and issues in Case Work in Pakistan?

پاکستان میں کیس ورک کے جدید رجحانات اور مسائل کیا ہیں؟

Q.2. Answer the following questions

(3x10=30)

سوال نمبر 2: درج ذیل سوالات کے جوابات تحریر کریں۔

1. Explain the components of Social Case Work (Person, Problem, Place, Process, and Professional Representative) and their role in case work.

سوشل کیس ورک کے اجزاء (شخص، مسئلہ، جگہ، عمل، اور پیشہ ور نمائندہ) کی وضاحت کریں اور کیس ورک میں ان کا کردار بیان کریں۔

2. Discuss the general principles of Social Case Work and how they guide professional practice.

سوشل کیس ورک کے عمومی اصولوں پر بحث کریں اور یہ پیشہ ورانہ عمل کی رہنمائی کیسے کرتے ہیں۔

3. Describe the Social Case Work process as a problem-solving method, including social study, diagnosis, and treatment.

سوشل کیس ورک کے عمل کو ایک مسئلہ حل کرنے کے طریقہ کار کے طور پر بیان کریں، جس میں سماجی مطالعہ، تشخیص اور علاج شامل ہیں۔





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Social Work

Course Code: SOCW-211

Roll No. ....

Time: 3 Hrs. Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

Q.1. Answer the following short questions.

(6x5=30)

- سوال نمبر 1: درج ذیل سوالات کے مختصر جوابات تحریر کریں۔
- What are the problems faced by senior citizens in Pakistan?  
پاکستان میں بزرگ شہریوں کو کن مسائل کا سامنا ہے؟
  - Define the term community. Also elaborate its characteristics.  
کیونٹی کی تعریف کریں۔ اس کی خصوصیات بھی واضح کریں۔
  - Explain the role of psychiatric social worker in dealing with emotional problems of individuals.  
نفسیاتی سماجی کارکن افراد کے جذباتی مسائل سے نمٹنے میں کیا کردار ادا کرتا ہے؟ وضاحت کریں۔
  - How can a school social worker enhance the quality of education in Pakistan?  
اسکول سوشل ورکر پاکستان میں تعلیم کے معیار کو کیسے بہتر بنا سکتا ہے؟
  - Elaborate the objectives of social work in detail.  
سوشل ورک کے مقاصد کی تفصیل سے وضاحت کریں۔
  - Explain the concept of In-Group and Out-Group.  
ان گروپ اور آؤٹ گروپ کے تصور کی وضاحت کریں۔

Q.2. Answer the following questions

(3x10=30)

- سوال نمبر 2: درج ذیل سوالات کے جوابات تحریر کریں۔
- Define Social group work and describe its principles in detail.  
گروپ سماجی بہبود کی تعریف کریں اور اس کے اصولوں کی تفصیل سے وضاحت کریں۔
  - What sorts of services are needed to deal with the problems of senior citizens in Pakistan?  
پاکستان میں بزرگ شہریوں کے مسائل سے نمٹنے کے لیے کس قسم کی خدمات درکار ہیں؟
  - Define Community Development. What is the process to achieve the goal of developing a rural community?  
اجتماعی جماعتی ترقی کی تعریف کریں۔ دیہی کیونٹی کی ترقی کے مقصد کو حاصل کرنے کا عمل کیا ہے؟





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Social Psychology

Course Code: SPSY-221

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

1. What is the difference between prejudice and discrimination? Elaborate with an example.
2. Write a note on the important processes involved in persuasion.
3. What is bystander's effect? What is its importance in social psychology?
4. Explain the terms self-esteem and self-efficacy and their difference.
5. What is cognitive dissonance? Explain its importance in decision making and also give an example.
6. Explain the concept of social roles and social scripts in social psychology.

**Q.2. Answer the following questions.**

**(3x10=30)**

1. What is social psychology? How is it different from other relevant field of study like sociology?
2. Which research methods are commonly used in social psychology? Explain one of them in detail.
3. Explain the theories of aggression and how aggression affects interpersonal relationships?



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Fall 2024

Paper: Social Psychology

Course Code: SPSY-221

Marks: 60

Roll No. ....

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions: (6x5=30)**

- i. What is the role of social psychology in modern society?**
- ii. What are the key characteristics of personality development?**
- iii. Explain socio-cultural dynamics?**
- iv. Describe socialization in personality development?**
- v. Explain the methods and framework of social psychology?**
- vi. Explain the dynamics of leadership?**

**Q.2. Answer the following questions: (3x10=30)**

- 1. Write comprehensive note on the field of social psychology.**
- 2. Explain in detail Self-presentation and Social perception.**
- 3. What is aggression? Explain its influences and ways to reduce it.**



### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Answer the following short questions. (6x5=30)**

- How many pairs of observation must be included in the sample in order that an observed correlation coefficient of value 0.47 shall have a calculated value of  $t$  greater than 2.12.
- Given that

$X_1$	3	5	6	8
$X_2$	18	9	7	4
$X_3$	90	27	45	24

Find all partial correlation coefficients.

- Differentiate between multiple and partial correlations.
- Write the advantages and disadvantages of completely randomize Block design.
- The grades in a statistics course were as follow

Grades	A	B	C	D	E
$f$	14	18	32	20	16

Test the hypothesis that the Distribution of grades is uniform . Let  $\alpha=0.05$

- Name the different multiple range tests. Explain any one of them.

**Answer the following questions (3x10=30)**

**Q2.** The following data represent the marks obtained by five students in three subjects

Student	Subjects		
	English	Statistics	Economics
1	47	73	61
2	80	88	86
3	71	77	59
4	62	60	66
5	56	95	87

Use a 0.05 level of significance to test the hypothesis that

- The subjects are of equal difficult.
- The students have equal ability.

**Q3.** Estimate the regression line from the following data of heights (X) and weights (Y) of 12 persons

Heights(X)	Weights(Y)
60	110,135,120
62	120,140,130,135
64	150,145
70	170,185,160

Test the hypothesis that height and weight are independent

**Q4.** Consider the following set of data

$X_1$	4	6	5	8	12	13	19
$X_2$	1	1	2	3	4	5	7
$X_3$	2	4	3	4	8	8	11

Find the estimated regression line  $X_1=b_1+b_2X_2+b_3X_3$  and  $R_{1,23}$ .



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(6x5=30)**

- i. Inferential Statistics.
- ii. Co-efficient of variation.
- iii. Regression and its types.
- iv. Contingency table and Chi-Square.
- v. Moments.
- vi. Histogram.

**Answer the following questions**

**(5x6=30)**

**Q.2. Find Airthematic mean and Mode of the following frequency distribution.**

Classes:	35 – 40	40 – 45	45 – 50	50 – 55	55 – 60	60 – 75
Frequency:	13	15	17	28	12	10

**Q.3. Calculate Mean-deviation about mean for the following data:**

80, 75, 63, 65, 78, 96, 82, 79, 67, 85

**Q.4. The Scores made by candidates in a certain test are normally distributed with mean 55 and standard deviation 10. What percent of the candidates received scores between 45 and 60?**

**Q.5. Compute the correlation co-efficient between variables for the data given below:**

X:	2	4	5	6	8	11	14
Y:	18	12	8	7	5	4	3

**Q.6. The nine items of a sample had the following values.**

45, 47, 50, 52, 48, 46, 49, 53, 51

**Does the mean of these items differ significantly from an assumed normal population mean of 47.6 at  $\alpha = 0.05$ ?**



### THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Answer the following short questions. (15x2=30)**

- What is Quantitative Variable?
- Define Arithmetic Mean.
- Give two advantages of Mode.
- What do you know about Dispersion?
- If  $n = 10$ ,  $\sum X = 200$ ,  $\sum X^2 = 8000$ , Calculate the Variance.
- Define Sample Space.
- Explain equally likely events.
- State the Multiplication law of Probability for two independent events.
- If  $P(A) = 0.5$ ,  $P(B) = 0.4$ ,  $P(A \cap B) = 0.3$  find  $P(A \cup B)$
- Define the conditional probability.
- Give the properties of Binomial Experiment.
- Write two properties of Normal Distribution.
- What is Simple Regression?
- Write two properties of simple linear correlation coefficient.
- What is the difference between correlation and regression?

**Answer the following questions (6x5=30)**

**Q.2 Calculate the Arithmetic Mean from the following frequency distribution.**

Classes	20–24	25–29	30–34	35–39	40–44	45–49	50–54
Frequency	4	19	27	10	9	6	5

**Q.3 Calculate the Variance from the following frequency distribution.**

Weight	10–15	15–20	20–25	25–30	30–35	35–40
Frequency	3	7	9	12	5	4

**Q.4 A bag contains 12 identical balls, 4 of which are red, 5 black and 3 are white. Five balls are drawn from the bag without replacement. Find the probability that** (i) Three are red  
(ii) At least three are black.

**Q.5 When 6 coins are tossed what is the probability of getting**  
(i) at least 4 heads (ii) not more than 2 heads.

**Q.6 Scores on a certain nation-wide college entrance follow a normal distribution with a mean of 500 and standard deviation of 100. Find the probability that a student will score** (i) over 650  
(ii) between 300 and 600.

**Q.7 Find the regression equation Y on X from the following data.**

X	1	2	3	4	5	6
Y	20	50	60	70	80	100



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Introduction to Urdu

Course Code: URDU-111

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

(6x5=30)

سوال نمبر 1: مندرجہ ذیل سوالات پر مختصر نوٹ لکھیں۔

- ۱۔ صرف سے کیا مراد ہے؟ مثالوں سے وضاحت کیجیے؟
- ۲۔ انٹرویو نویسی کے اصول تحریر کیجیے۔
- ۳۔ تشبیہ اور استعارہ کا فرق مثالوں سے واضح کیجیے۔
- ۴۔ ترجمہ نویسی کے پانچ اصول بتائیے۔
- ۵۔ صنعت تلمیح سے کیا مراد ہے اشعار سے مثالیں دیجیے۔
- ۶۔ حافظ محمود شیرانی کے نظریے "پنجاب میں اردو" کی وضاحت کیجیے۔

(3x10=30)

سوال نمبر 2: مندرجہ ذیل سوالات کے مفصل جوابات دیں۔

- ۱۔ اصطلاحات سے کیا مراد ہے؟ اصطلاحات سازی پر جامع نوٹ تحریر کیجیے۔
- ۲۔ اردو زبان کے آغاز و ارتقا پر نوٹ لکھیے۔
- ۳۔ مکالمہ نویسی پر نوٹ لکھیے۔ خاص طور سے اردو کے کسی نامور ڈرامے سے مکالموں کی چند مثالیں دیجیے۔





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Functional Urdu

Course Code: URDU-111A

Time: 3 Hrs. Marks: 60

Roll No. ....

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

(6x5=30)

سوال نمبر 1: مندرجہ ذیل سوالات پر مختصر نوٹ لکھیں۔

- (الف): استعارہ کی تعریف کریں اور دو مثالوں سے وضاحت کریں۔
- (ب): تلمیح کی تعریف کریں اور دو مثالیں تحریر کریں۔
- (ج): ضرب المثل کی تعریف بیان کرتے ہوئے دو مثالیں دیں۔
- (د): متضاد الفاظ سے کیا مراد ہے؟ کوئی سے پانچ الفاظ کے متضاد تحریر کریں۔
- (ه): اردو زبان میں حروف علت کتنے اور کون کون سے ہیں؟
- (و): ”گاہ“ کو بطور لاحقہ استعمال کرتے ہوئے کوئی سے دو الفاظ بنائیں۔

(3x10=30)

سوال نمبر 2: مندرجہ ذیل سوالات کے مفصل جوابات دیں۔

- (الف): اردو زبان کے آغاز و ارتقاء پر جامع نوٹ تحریر کریں۔
- (ب): انٹرویو کیا ہے؟ ایک اچھا انٹرویو کن خصوصیات کا حامل ہوتا ہے؟
- (ج): انگریزی سے اردو میں ترجمہ نگاری کی روایت کا مختصر حال بیان کریں۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Tehqeeq o Tanqeed (Bunyadi Mubahas) Course Code: URDU-205

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

(6x5=30)

سوال نمبر 1: مندرجہ ذیل سوالات پر مختصر نوٹ لکھیں۔

- ۱۔ ناقدین کی آرا کی روشنی میں تنقید کے معنی و مفہوم پر روشنی ڈالیں۔
- ۲۔ تحقیق کے خصائص مختصر بیان کریں۔
- ۳۔ بابائے اردو مولوی عبدالحق کی تحقیقی خدمات کا مختصر جائزہ لیجئے۔
- ۴۔ ”نفسیاتی تنقید“ سے کیا مراد ہے؟
- ۵۔ تنقید کے مقاصد مختصر بیان کریں۔
- ۶۔ محمد حسن عسکری کے تنقیدی نظریات پر مختصر نوٹ لکھیں۔

(3x10=30)

سوال نمبر 2: درج ذیل سوالات کے مفصل جوابات تحریر کریں۔

- ۱۔ اردو تنقید کی روایت میں ”عمرانی تنقید“ کی اہمیت پر مفصل نوٹ لکھیں۔
- ۲۔ احتشام حسین کے تنقیدی نظریات پر روشنی ڈالیں۔
- ۳۔ تنقید اور تخلیق کے باہمی رشتے پر جامع نوٹ لکھیں۔



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Roll No. ....

Paper: Tehreer o Insha (Practice)

Course Code: URDU-206

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

اس پرچہ کو مہیا کی گئی جوابی کاپی پر حل کریں۔

(6x5=30)

سوال نمبر 1: مندرجہ ذیل سوالات پر مختصر نوٹ لکھیں۔

- ۱۔ تبصرہ و تجزیہ کیا ہوتا ہے؟
- ۲۔ مراسلت سے کیا مراد ہے؟
- ۳۔ رپورٹاژ نگاری کی تعریف بیان کریں؟
- ۴۔ کہانی اردو کی کن اصناف کا لازمی حصہ ہے؟
- ۵۔ درخواست نویسی کے اصول اختصار سے لکھیں؟
- ۶۔ غالب نے مراسلہ نگاری میں کیا نیا پن پیدا کیا؟

(3x10=30)

سوال نمبر 2: درج ذیل سوالات کے مفصل جوابات تحریر کریں۔

- ۱۔ علمی، ادبی اور عمومی مضمون نگاری کے فرق کو واضح کرتے ہوئے اردو میں مضمون نگاری کی روایت پر تفصیلی نوٹ لکھیں۔
- ۲۔ انشائیہ نگاری کے آغاز و ارتقا پر روشنی ڈالیں؟
- ۳۔ مختلف نوعیت کی درخواست نگاری میں کن امور کو ملحوظ رکھا جاتا ہے؟



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(15x2=30)**

- I. Write a note on secretions of stomach.
- II. Enlist the hormones released from anterior pituitary.
- III. Describe the salivary glands of humans.
- IV. What do you know about skin sensors of damaging stimuli?
- V. Describe, briefly, the role of lymphatic system.
- VI. Differentiate hemerythrin and chlorocruorin.
- VII. Describe, briefly, the role of pancreas in digestion.
- VIII. Describe the parathyroid gland.
- IX. Describe the location and function of Photoreceptors.
- X. Describe the location and function of phono receptors in invertebrates.
- XI. Describe in detail the sonar
- XII. With the help of labeled figures only, compare the heart and circulatory system of reptiles and mammals. Indicate the direction of blood flow as well.
- XIII. Describe the complex camera eye?
- XIV. Discuss the structure and function of Smooth endoplasmic reticulum.
- XV. Briefly describe the platelets.

**Q.2. Answer the following questions.**

**(3x10=30)**

- I. Give an account of the nerve impulse transmission mechanism in a neuron.
- II. Account, in detail, the hormones of pituitary gland, in mammals.
- III. Discuss, very briefly, the structure and function of vertebrate's stomach.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Fall 2024

Paper: Zoology-IV (Physiology)

Course Code: ZOOL-203

Roll No. ....

Marks: 60

## THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED

**Q.1. Answer the following short questions.**

**(15x2=30)**

- I. Differentiate between sensory and motor neuron
- II. Describe the location and function of Photoreceptors.
- III. Describe the complex camera eye?
- IV. Describe the difference between hormone and pheromone.
- V. Describe the gaseous exchange through gills.
- VI. Write a note on structure and functions of adrenal cortex.
- VII. Briefly describe the platelets.
- VIII. Describe the appendix.
- IX. Write a note on secretions of stomach.
- X. Describe, briefly, the role of ribosomes in cell
- XI. Differentiate between endocytosis and exocytosis
- XII. Describe the skin sensors of damaging stimuli
- XIII. Enlist the hormones released from anterior pituitary
- XIV. Differentiate between the serum and plasma
- XV. Describe the salivary glands of humans

**Q.2. Answer the following questions.**

**(3x10=30)**

- I. Give an account of the nerve impulse transmission mechanism in a neuron.
- II. Discuss, very briefly, hormonal control of female reproductive system.
- III. Account, in detail, the hormones of pituitary gland, in mammals.



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(15x2=30)**

- I. Write a note on gastric secretions.
- II. Enlist the hormones of digestive tract.
- III. Describe the heterotrophic mode of nutrition.
- IV. Differentiate between villi and microvilli?
- V. Describe, briefly, the Gizzard.
- VI. What is the energy budget of macronutrients.
- VII. Describe, briefly, the role of pancreas in digestion.
- VIII. What is contractile vacuole?
- IX. Enlist the major nitrogenous waste with an example of organism.
- X. Describe the term homeothermy in detail.
- XI. Describe in detail the advantages of sexual reproduction.
- XII. What is hermaphroditism.
- XIII. Enlist the hormones of female reproductive system?
- XIV. What are the stages of parturition.
- XV. Describe hormonal control of milk production and ejection.

**Q.2. Answer the following questions.**

**(3x10=30)**

- I. Give an account on the functions of metanephric kidney.
- II. Account, in detail, the female reproductive cycle.
- III. Discuss, very briefly, the structure and function of vertebrate's stomach.





# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Animal Form & Function II

Course Code: ZOOL-207

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(15x2=30)**

- I. Write a note on gastric juice.
- II. Describe, briefly, the role of the thyroid gland.
- III. Enlist the hormones released from anterior pituitary.
- IV. Differentiate between thyroid and parathyroid gland.
- V. Describe the salivary glands of humans.
- VI. Draw a flow chart of gas exchange between tissue and lungs.
- VII. Write a note on gut sphincters.
- VIII. What do you know about skin sensors of pressure stimuli?
- IX. Describe the endocrine system of mollusks.
- X. Describe, briefly, the role of neurons.
- XI. Draw a labelled diagram of the human heart.
- XII. Describe the fate of lipids in heterotrophs.
- XIII. Give a comparison of suspension feeders and deposit feeders.
- XIV. Describe, briefly, the role of pancreas in digestion.
- XV. What is a gizzard?

**Q.2. Answer the following questions.**

**(3x10=30)**

1. Account, in detail, the hormones of pituitary gland, in mammals.
2. Discuss, very briefly, the structure and function of vertebrate's stomach.
3. Explain in detail the invertebrates' sensory receptors.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Animal Behaviour

Course Code: ZOOL-210

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(15x2=30)**

- i. What is comparative psychology?
- ii. What is sexual conflict?
- iii. What are ultimate causes of behavior?
- iv. What are territorial birds?
- v. What is polyandry?
- vi. What is social communication?
- vii. What is Negative feedback system?
- viii. What is Fisher Law?
- ix. How group foraging is beneficial?
- x. What are cognitive maps?
- xi. What is classical conditioning?
- xii. What is aggression?
- xiii. What is imprinting?
- xiv. What is Bubble cloud feeding?
- xv. What are pseudomorphs?

**Q.2. Answer the following questions.**

**(3x10=30)**

- i. Discuss different communication channels in animals in detail?
- ii. Discuss social organization in insects?
- iii. Give a detailed account of competition for resources in animals?



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (15x2=30)**

- i. What is difference between essential and non-essential amino acids?
- ii. What is role of pro-proteins?
- iii. What is co-factor, give example?
- iv. What are antioxidants?
- v. How can you classify lipids?
- vi. Name different techniques used in protein purification.
- vii. Differentiate between purines and pyrimidine.
- viii. What is importance of proteins?
- ix. Explain waxes.
- x. What are oligosaccharides?
- xi. What is amino acid sequence?
- xii. Write down the three important functions of the enzyme.
- xiii. What are the nucleotides?
- xiv. Describe economic importance of carbohydrates.
- xv. Differentiate between saturated and unsaturated fatty acids.

**Q.2. Answer the following questions. (2x15=30)**

- i. Write in detail the types of amino acids and their classification.
- ii. What are sphingolipids? Write its types and importance.



# UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Fourth Semester – Spring 2025

Paper: Biological Techniques

Course Code: ZOOL-212

Roll No. ....

Time: 3 Hrs. Marks: 60

**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (6x5=30)**

- i. Phase Contrast microscope
- ii. Concentrations- percent volume; molarity, normality, molality
- iii. Centrifugation
- iv. Thin layer chromatography
- v. Preservation of dry and wet specimens
- vi. Transmission electron microscope

**Answer the following questions. (3x10=30)**

**Q.2 Discuss about different steps involved in tissue histology.**

**Q.3 Write detail note on Maxam Gilbert DNA sequencing method.**

**Q.4 Give a comprehensive note on Electrophoresis.**



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions.**

**(15x2=30)**

- I. Differentiate b/w carnivore and omnivore.
- II. What is the metabolic fate of lipids in heterotrophs.
- III. Briefly describe the fluid feeders.
- IV. Differentiate b/w intracellular and extracellular digestion?
- V. Write down the composition of gastric juice.
- VI. What is micelles?
- VII. What is conduction of heat?
- VIII. Briefly describe the endotherms.
- IX. Why vertebrates are thermoregulatory.
- X. What is blubber?
- XI. Write a note on protonephridia.
- XII. What are Malpighian tubules?
- XIII. Write a note on the process of budding.
- XIV. Write down the functions of LH.
- XV. What is spermatogenesis?

**Q.2. Answer the following questions.**

**(3x10=30)**

1. Write a note on gastrointestinal motility and its control with figures.
2. How does the metanephric kidney function? Elaborate with diagram.
3. Explain hormonal control of female reproductive functions.