

**KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)**

ENGLISH ESSAY

Time Allowed: 03 Hours

Total Marks: 100

Note:- Choose a topic from the following list and write a well-structured and comprehensive essay within 2500-3000- word limit: (100)

1. Mediocrity galore destroys the genius.
2. Advanced technology has objectified humanity.
3. Pleasure of Procrastination.
4. Waste recycling and disposal have become a nightmare for Pakistan.
5. Wildlife has lost the life part.
6. The Unsustainable Reality: Consumers Not Producers and Polluters
Not Purifiers.
7. Fear of consequences is the antithesis of gallantry.
8. Slavery has been systemized, not eradicated.

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER /AETO BPS-17
(2025)

ENGLISH (PRECIS & COMPOSITION)

Time Allowed: 03 Hours

Total Marks: 100

Q.No.1 Make a précis of the passage below and suggest a suitable title:

(20)

Imagine a Pakistan where its economic troubles start to fade away! Here is where Information Technology (IT) exports step in. The sector — the freelancing community, software companies, and the broader technology industry — has been steadily expanding in recent times. Sure, there have been murmurs of a slowdown, but the sector's potential as an economic powerhouse is undeniable. But the issue is the gap between the IT sector's academia and industry. High taxes are also a problem. They are pushing Pakistan's brightest computer science (CS) graduates away from IT firms. Instead, many are choosing the freedom of freelancing, drawn by the promise of higher pay and fewer financial burdens. Another liability is that IT engineers from CS programs are missing the mark when it comes to soft skills. The lack of these skills hinders their growth because they are unable to communicate in an environment where teamwork is key. Their communication skills are found wanting, taking the focus off their technical abilities as well. Soft skills are essential across the board, yet they are often overlooked in academic coursework. Despite a flood of IT graduates, many struggle with employability as they lack modern training and critical thinking skills needed to thrive in today's fast-paced digital economy. Most importantly, reliable internet access and a robust IT infrastructure are non-negotiable for supporting remote operations, particularly in sectors reliant on work-from-home and online learning. If we are to harness its full potential, a concerted effort to bridge these gaps is imperative. Only through collaborative partnerships and a commitment to fostering a reliable digital landscape can the country transform its IT sector into a powerhouse that not only competes on the global stage but also drives socio-economic progress for generations to come.

Q.No.2 Read the passage below and answer the questions given at the end of the passage in your OWN WORDS: **(10)**

According to a monitoring report for 2024, jointly prepared by the Ministry of National Health Services and the World Health Organization, the country lagged far behind in achieving the global target of 80 percent. Last year's results, based on health-related Sustainable Development Goals, have been measured from two points: coverage of essential service delivery, and financial protection. Islamabad Capital Territory led with 63.9 percent followed by Punjab with a 55.5 percent score, Khyber Pakhtunkhwa 51 percent, Sindh 50.7 percent, and Balochistan 38.4 percent. While healthcare is increasingly recognized as a basic human right, it is also intimately connected to the process of socio-economic development, yet it remains a low priority for our policymakers. Even when resource constraints hamper progress, there are ways to channelize efforts and funds into health systems. Much of the SDGs can be achieved if the available resources are used in a productive, socially responsible manner. Though that is a vain expectation, given the preferences of those who have the power to improve the quality of life for the people in whose name they govern. Hope is not lost, however. Many private citizens have come forward to work for the welfare of others. In Punjab, for instance, some wealthy entrepreneurs have funded construction of additional wings to government hospitals, and also provide free of cost medicines and food to less fortunate people. A more effective and organized approach seems to be public-private partnership embraced by the Sindh government. Under a capacity enhancement plan of

P.T.O.

action quite a few philanthropists make generous monetary donations, matched by the government, and also oversee management of public sector hospitals, where people have access to free of cost quality health services. Other provinces can also serve their people better by adopting this model. It is about time all concerned realized that investments in universal healthcare not only benefit people on individual level but also contribute to national endeavour towards progress and prosperity. The present report says that more than half of the burden of diseases in Pakistan could be tackled through inter-sectoral policies and interventions.

- a. How did the business community contribute to achieving SDGs?
- b. What metrics are used to measure the SDGs?
- c. Why do you think the tone of the passage is optimistic?
- d. Which suggestion is likely to yield better results?
- e. What are meanings of entrepreneur and philanthropist?

Q.No.3 Write a 300-400-word composition on the topic: "When Fun Turned into a Calamity". (20)

Q.No.4 Use the following idioms/ phrases in sentences to illustrate their meanings: (20)

- | | |
|------------------------|-------------------------|
| i. Make away with | vi. All at sea |
| ii. Suit one's book | vii. Red letter day |
| iii. Nine days' wonder | viii. In a fix |
| iv. Bury the hatchet | ix. Wash one's hands of |
| v. Die down | x. Turn down |

Q.No.5 Punctuate the following sentences correctly: (10)

- i. He inquired are you ready.
- ii. Its raining we cant go out.
- iii. Friendship is like a tree it grows slowly; but stands strong!
- iv. He asked where are you from.
- v. I went to; New York; Delhi; and Cairo for studies.
- vi. Yes I saw her lost, in daydreams:-
- vii. He wanted to know, are you alright!
- viii. Panda eats, leaves, and shoot's.
- ix. Its a fine day isnt it?
- x. They waited, for the whole day however they didn't lose hope.

Q.No.6 Do as directed. (20)

- a. The Secretary would turn down the proposal. (Change into Passive Voice)
- b. The service restored if you will pay the bill. (Change into First Conditional)
- c. If I know his address, I would have approached him.(Change into Second Conditional)
- d. He would score good marks, if he had worked hard.(Change into Third Conditional)
- e. The task must have been completed by now. (Change into Active Voice)
- f. We might compose new tunes. (Change into Passive Voice)
- g. I shall say, "I shall obey the rules." (Change into Indirect Speech)
- h. She asked, "When will you leave?" (Change into Indirect Speech)
- i. The policeman said not to walk in the middle of the road.(Change into Direct Speech)
- j. I say to my mother, "He is my best friend." (Change into Reported Speech)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

**GENERAL KNOWLEDGE/
EVERYDAY SCIENCE**

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- Q.No.1 a) Explain how science can be understood both as a systematic body of knowledge and as a dynamic process of inquiry. (20)
b) Examine how Muslim scholars preserved, enriched, and transmitted ancient Greek knowledge to Europe and to what extent did this intellectual legacy contribute to the emergence of the European Renaissance?
- Q.No.2 a) What are planets? Explain their main physical characteristics? (20)
b) Explain the phenomena of lunar and solar eclipses and describe the different types of solar eclipses.
- Q.No.3 What is human immune system? Discuss the mechanisms through which it can be strengthened. (20)
- Q.No.4 a) Discuss how does a computer work? (20)
b) Define Artificial Intelligence (AI) and critically discuss its major applications in daily life.
- Q.No.5 a) What do you know about the Animal Kingdom? Differentiate between vertebrates and invertebrates with suitable examples. (20)
b) Discuss the Respiratory system in human body.
- Q.No.6 a) Name the four major biomolecules and explain their importance in biological systems. (20)
b) What are proteins, and what are their functions in human body?
- Q.No.7 a) What is a Balanced Diet? (20)
b) What is photosynthesis? Describe the process briefly.
- Q.No.8 a) How can Pakistan reduce its energy consumption through policy changes? (20)
b) What is the relationship between human physiology and human behaviour?

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

**GENERAL KNOWLEDGE/
PAKISTAN AFFAIRS**

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- Q.No.1 The year 1857 marked a turning point for the Muslims of South Asia. Critically evaluate the intellectual challenges they faced and analyze the responses formulated to address them. (20)
- Q.No.2 Compare and contrast the role of Nadwat al-Ulama with the Deoband and Aligarh movements in shaping the religious, intellectual, and educational responses of Indian Muslims to colonial modernity. (20)
- Q.No.3 Khilafat Movement was both a religious cause and a political strategy. Discuss its implications for the subsequent course of Muslims Indian politics. (20)
- Q.No.4 Evaluate the role of the separate electorate system in the evolution of the Pakistan Movement. (20)
- Q.No.5 Assess the role of Quaid-e-Azam Muhammad Ali Jinnah in transforming Muslim identity into a mass political movement for Pakistan. (20)
- Q.No.6 Pakistan has faced repeated failures in framing and sustaining a stable constitutional order. Discuss the causes and consequences of constitutional breakdowns in Pakistan's history. (20)
- Q.No.7 Despite being considered as corrupt or inefficient, democratic governments in Pakistan still provide space for accountability, civil liberties, and peaceful political competition. Discuss. (20)
- Q.No.8 Discuss the significance of Pakistan's geographical location. How has it been both an asset and a liability for the state's security and foreign policy? (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

**GENERAL KNOWLEDGE/
CURRENT AFFAIRS**

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- Q.No.1 Pakistan's foreign policy is often described as reactive rather than proactive. Critically evaluate this statement with reference to relations with the U.S., China, and neighbouring states. (20)
- Q.No.2 What do you know about the causes of Russia-Ukraine conflict and analyze its consequences for European and global security. (20)
- Q.No.3 Evaluate the impact of climate change on human security. How can developing countries like Pakistan mitigate and respond to the challenge at the global level? (20)
- Q.No.4 Evaluate Pakistan's role in regional organizations such as SAARC, ECO, and SCO. Why these organizations failed to emerge as European Union (EU)? (20)
- Q.No.5 Critically examine the view that China is advancing while the United States is retreating in global politics. (20)
- Q.No.6 Artificial Intelligence (AI), cyber security, and digital governance are transforming global politics. What are the implications for Pakistan's national security and economy? (20)
- Q.No.7 "Pakistan's most serious threat is internal rather than external." Critically analyze this statement in the light of political instability, economic fragility, and social polarization. (20)
- Q.No.8 The four-day war between India and Pakistan significantly altered the regional and global scenario. Examine its implications. (20)

.....

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ISLAMIAT

Time Allowed: 03 Hours

Total Marks: 100

Note: Attempt any five (5) questions in either English or Urdu.

مندرجہ ذیل میں سے پانچ (5) سوالات کے جوابات انگریزی یا اردو میں تحریر کریں۔

- Q.No.1 Define Deen and Mazhab. How does Islam function both as a Deen and a Mazhab, and what is the place of humanity in Islamic teachings? (20)
دین اور مذہب کی تعریف کریں۔ اسلام کس طرح ایک دین اور مذہب دونوں کے طور پر اپنا کردار ادا کرتا ہے، اور اسلامی تعلیمات میں انسانیت کو کیا مقام حاصل ہے؟
- Q.No.2 What is the concept of morality (Akhlaq) in Islam? How is it reflected in Islamic teachings and practices, and what is the relationship between morality and faith (Iman) in Islam? (20)
اسلام میں اخلاق کا تصور کیا ہے، یہ اسلامی تعلیمات اور عملی زندگی میں کس طرح ظاہر ہوتا ہے، اور اسلام میں اخلاق اور ایمان کے درمیان کیا تعلق ہے؟
- Q.No.3 How do Wahy, reason, and experience collectively guide human life? Discuss. (20)
وحی، عقل اور تجربہ ایک ساتھ مل کر انسانی زندگی کی رہنمائی کس انداز میں کرتے ہیں؟ تبصرہ کریں۔
- Q.No.4 Elucidate the importance of religion and its effects on a diverse society. (20)
تکثیری معاشرے میں مذہب کی اہمیت اور اس کے اثرات پر روشنی ڈالیں۔
- Q.No.5 Explain the importance of fasting in Islam and its impact on personality development. (20)
اسلام میں روزہ کی اہمیت اور شخصیت کی تعمیر پر اس کے اثرات کی وضاحت کریں۔
- Q.No.6 Describe the difference between Hadith and Sunnah, and write a note on Sunnah as a source of Shariah and its importance in the contemporary era. (20)
حدیث اور سنت کے درمیان فرق بیان کریں، سنت بطور شریعت اور عصر حاضر میں اس کی اہمیت پر نوٹ لکھیں۔
- Q.No.7 Discuss the political system of Islam, and its impact on democracy. (20)
اسلام کے نظام سیاست اور جمہوریت پر اس کے اثرات کو واضح کریں۔
- Q.No.8 Describe the political and social issues faced by the Muslim Ummah in the contemporary era. (20)
عصر حاضر میں امت مسلمہ کو درپیش سیاسی اور معاشرتی مسائل پر تبصرہ کریں۔

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

POLITICAL SCIENCE (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions in all, selecting at least two from each section.
All questions carry equal marks.

Section - A

- Q.No.1 Explain Aristotle's concept of citizenship. What are the implications of Aristotle's concept of citizenship for modern democracies? (20)
- Q.No.2 Examine the philosophical significance of Hobbes' idea that life in a state of nature would be 'nasty, brutish, and short'. How has this view influenced modern political thought? (20)
- Q.No.3 Al-Farabi is regarded as Muallim-i-Thani (the Second Teacher) Discuss his theory of leadership and qualities of the ideal ruler. To what extent does his political thought reflect both Islamic teachings and Greek philosophical influences? (20)
- Q.No.4 Evaluate Ibn Khaldun's contribution to Islamic political thought. To what extent can his ideas be regarded as a precursor to modern social and political theories? (20)

Section – B

- Q.No.5 Discuss the concept of the Islamic State. What major issues and challenges are associated with its interpretation and implementation in the modern world? (20)
- Q.No.6 Quaid-e-Azam Muhammad Ali Jinnah declared: 'Pakistan is not going to be a unitary government. It will be a federal government, with residuary powers vested in the provinces.' Why? Analyze this statement in the context of Political Science. (20)
- Q.No.7 Define theory of Rights and Duties and explain the concept of Fundamental Rights in a National State. (20)
- Q.No.8 Critically evaluate the strengths and weaknesses of democracy. What major challenges and threats does it face in the modern world? (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

AGRICULTURE

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.
Extra attempt of any question or part will not be considered.

- | | | |
|--------|--|------|
| Q.No.1 | The humans, livestock and environment are interconnected. What is the concept of 'One Health'? Explain how this concept gives a unifying approach aiming to sustainably balance the health of people, animals and agricultural crops? | (20) |
| Q.No.2 | What is plant tissue culture technique? Write the role of culture media, nutrients and hormones for in vitro propagation of plants. Give examples to explain how this technique is used for the commercial production of horticultural crops? | (20) |
| Q.No.3 | How climate change is expected to reshape cropping systems. What measure would you suggest are needed today to mitigate the effect of climate change on future agricultural crops in Khyber Pakhtunkhwa? | (20) |
| Q.No.4 | Insect pests and diseases cause significant damage to our crops. What remedies would you suggest to tackle insect pests and disease problems in fruit plants? | (20) |
| Q.No.5 | What is breeding for hybrid seed? Why Pakistan imports a wide variety of hybrid seed for field and vegetable crops and still couldn't develop a sound hybrid seed production industry both in public and private sectors within country? | (20) |
| Q.No.6 | What do you understand by the soil fertility? Discuss the use of different inputs like chemical fertilizers, farm-yard manure, green manuring of leguminous crops, and mulching to enhance soil fertility. | (20) |
| Q.No.7 | Write about the main contributing factors of lower average crops yields in Pakistan when we compare them with yields of other countries. Highlight gaps and suggest rational solutions to address this issue. | (20) |
| Q.No.8 | Write short notes on any four (04) of the following:
i. Smart plant protection.
ii. Drought tolerance in crops
iii. Hydroponic agriculture
iv. Genetic engineering of plants
v. Wheat leaf rust (brown rust)
vi. Precision agriculture | (20) |

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

POLITICAL SCIENCE (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions in all, selecting at least two from each section.
All questions carry equal marks.

Section – A

- Q.No.1 Compare the British doctrine of the Rule of Law with the practice of constitutional supremacy in written constitutions. (20)
- Q.No.2 The U.S. Constitution is one of the most rigid constitutions in the world. Discuss, comparing it with flexible constitutions such as that of the United Kingdom. (20)
- Q.No.3 Critically examine the semi-presidential system of the French Fifth Republic. How does it differ from pure presidential and parliamentary system? (20)
- Q.No.4 The Indian Constitution is often described as a “borrowed document.” Evaluate this statement with reference to its main features. (20)

Section – B

- Q.No.5 Compare the Turkish experience of constitutionalism with other Muslim-majority states like Iran and Pakistan. (20)
- Q.No.6 Critically examine the role of Sir Syed Ahmad Khan and Aligarh Movement in shaping Muslim identity and cultivating a distinct political consciousness in colonial India. (20)
- Q.No.7 Discuss the political and constitutional debates surrounding the 18th Amendment. To what extent did it reflect consensus versus contestation among various groups in Pakistan? (20)
- Q.No.8 Trace and critically evaluate the historical and constitutional factors that led to the adoption of a federal parliamentary system in Pakistan under the 1973 Constitution. (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

FORESTRY

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- | | | |
|--------|--|------|
| Q.No.1 | How can degraded ecosystems be restored to meet the objectives of biodiversity conservation, ecosystem resilience, ecosystem function, and sustainability of rural livelihoods? | (20) |
| Q.No.2 | Describe types of forest fires, their ill-effects, and preventive measures. Also discuss the role of forest fire on forest ecosystem. | (20) |
| Q.No.3 | Describe Silviculture System. Which system is economically and ecologically viable? | (20) |
| Q.No.4 | In the context of best forest management practices, illustrate the scope and aims of different types of forest rotation. Keeping in mind the MAI and CAI value, how can we best select species that simultaneously provide economic, social, and ecological value? | (20) |
| Q.No.5 | Explain the scope and aims of Urban forestry. Discuss the need of urban forestry in the improvement of city environment. How the Urban Forestry can be promoted through Miyawaki method and 3-30-300 rule? | (20) |
| Q.No.6 | Briefly discuss the forest policies of Pakistan and its need. What was the main failure of Pakistan forest Policies since 1955? Give suggestions for sound forest policy based on current problems and facts for sustainable forest management? | (20) |
| Q.No.7 | How can local knowledge, wisdom and experiences e.g. on tree species, Wildlife, NTFPs (non-timber forest products) can be used to unlock bio-economy of Pakistan? Enlist the NTFP of Dry and Moist Temperate Forest of Pakistan. | (20) |
| Q.No.8 | Pakistan is facing serious problem of water crisis. How can we maintain, restore and shape watershed area, while keeping in mind the needs of indigenous people who rely on intact forest ecosystem? | (20) |

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ISLAMIC HISTORY & CULTURE (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- Q.No.1 Describe the historical, theological, and jurisprudential significance of the life and teachings of the Holy Prophet Muhammad (SAW). (20)
- Q.No.2 Critically assess the administrative, political, and social dynamics during the foundational period of the Muslim state under the Khulafa-e-Rashideen. How effectively were these affairs managed? (20)
- Q.No.3 Analyze the political and ideological differences that led to the emergence of the Umayyad dynasty. Discuss the key factors contributing to their rise to power. (20)
- Q.No.4 Analyze the Ottoman Caliphate as the political framework of the state, highlighting the salient features of its administrative system. (20)
- Q.No.5 Analyze the administrative reforms and territorial expansions under Hazrat Umar (RA) and discuss their long-term impact on the structure of the Islamic Caliphate. (20)
- Q.No.6 How did the major world civilizations influence the intellectual environment before Islam? Discuss. (20)
- Q.No.7 Discuss the historical, theological and juristic value of Mu'atta Imam Malik. (20)
- Q.No.8 Discuss the political, social and religious conditions of the Arabian peninsula before the dawn of Islam. (20)

.....

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

HISTORY OF INDIA AND PAKISTAN (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- Q.No.1 Assess the long-term political and military consequences of Mahmud's campaigns in Northern India. Did his invasions merely create a power vacuum, or did they fundamentally shatter the morale and strategic capabilities of the Rajput confederacies, thereby paving the way for the Ghurid conquests a century and a half later? (20)
- Q.No.2 Evaluate the economic and administrative reforms of Alauddin Khalji and Muhammad bin Tughlaq. Were their ambitious projects – such as market controls and token currency – visionary attempts at state-building and economic management, or were they fundamentally flawed and tyrannical measures that destabilized the empire? (20)
- Q.No.3 To what extent did the Sultanate period represent a 'clash of civilizations' versus a period of dynamic cultural synthesis? Analyze this with specific reference to developments in architecture, literature, and music. (20)
- Q.No.4 Critically assess the role of the nobility, particularly the "Turkan-i-Chihalgani" during the 13th century. Were they the architects and pillars of the Sultanate's administration or a parasitic oligarchy whose internal power struggles consistently undermined the authority of the Sultan? (20)
- Q.No.5 Analyze the First Battle of Panipat. Was Babur's victory a 'gunpowder revolution' that demonstrated the absolute superiority of his military technology and tactics (like the Tughlqas), or was it primarily a result of Ibrahim Lodi's strategic blunders and the internal decay of the Delhi Sultanate? (20)
- Q.No.6 Analyze the evolution of Mughal religious policy from Jahangir to Shah Jahan. Was this period a steady retreat from Akbar's syncretism towards Aurangzeb's orthodoxy, or did it represent a complex balancing act, attempting to maintain an inclusive state while accommodating the growing influence of the orthodox Ulama? (20)
- Q.No.7 Evaluate the health and stability of the Mughal economy in the 17th century. Was the empire a powerful, self-sufficient agrarian giant, or was its prosperity increasingly dependent on the influx of silver from the New World and maritime trade dominated by European companies, making it vulnerable to global economic shifts? (20)
- Q.No.8 Trace the evolution of Mughal miniature painting from Akbar to Aurangzeb. How do the changing themes and styles – from the dynamic, narrative-driven illustrations of the *Akbarnama* to the formal, static court portraiture of Shah Jahan—reflect the changing political ideologies and self-perception of the Mughal Emperors? (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

BRITISH HISTORY (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- | | | |
|--------|---|------|
| Q.No.1 | Was the Norman Conquest of 1066 a simple dynastic change or a revolutionary event? Argue for or against the proposition that it fundamentally remade English society. | (20) |
| Q.No.2 | To what extent was Thomas Hobbes's grim depiction of the state of nature as a life that is 'solitary, poor, nasty, brutish, and short' a direct reflection of the political and social breakdown he witnessed during the English Civil War? Analyze whether his proposed solution---an absolute sovereign---was a logical remedy for the specific ills that afflicted 17 th century England. | (20) |
| Q.No.3 | Analyze the Glorious Revolution as a turning point in British political history. Was it a radical revolution that established popular sovereignty, or a conservative settlement designed by the aristocracy to secure their power and property while establishing the supremacy of Parliament over the monarchy? | (20) |
| Q.No.4 | Assess the impact of the French Revolution on British domestic politics. How did the perceived threat of revolutionary ideas lead to a period of government repression (e.g. the Pitts 'Reign of Terror') that stifled the movement for parliamentary reform for a generation? | (20) |
| Q.No.5 | Assess the claim that Great Britain, not the continental powers, was the true victor of the Napoleonic Wars. To what extent did the conflict eliminate Britain's main commercial rival (French) and secure its global maritime, colonial, and industrial supremacy for the next century? | (20) |
| Q.No.6 | Evaluate the social consequences of the Industrial Revolution in Britain. Did the era primarily represent progress, leading to long-term improvements in the standard of living and the rise of a new middle class, or was it an age of exploitation defined by the misery of the urban working class? | (20) |
| Q.No.7 | Assess the primary cause of the American War of Independence (1775-1783). Was the conflict an irreconcilable clash of political ideologies over liberty and representation, or was it fundamentally an economic dispute driven by British mercantilist policies and colonial resistance to taxation? | (20) |
| Q.No.8 | Evaluate the Great Reform Act of 1832 not as an end-point, but as the direct catalyst for the Chartist movement. Did the Act's deliberate exclusion of the working classes make a more radical, class-based politics inevitable in the following decade? | (20) |

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

EUROPEAN HISTORY (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- | | | |
|--------|---|------|
| Q.No.1 | Examine the internal and external factors that contributed to the rise of Napoleon Bonaparte. How far did Napoleon's rule continue or betray the ideals of the French Revolution? | (20) |
| Q.No.2 | Examine how the Metternich system sought to suppress revolutionary movements in post-Napoleonic Europe. Why did it ultimately fail? | (20) |
| Q.No.3 | Evaluate the effectiveness of the Congress of Vienna in maintaining peace in Europe between 1815 and 1848. To what extent did it succeed in reconciling conservative principles with the force of change? | (20) |
| Q.No.4 | Assess the role of nationalism and realpolitik in the unification of Italy and Germany. How did the leadership of Cavour and Bismarck redefine the balance of power in Europe? | (20) |
| Q.No.5 | Discuss the relationship between industrialization, imperialism, and nationalism in shaping Europe's global dominance during the 19 th century. | (20) |
| Q.No.6 | What were the primary economic, political, and ideological motivations behind the "New Imperialism" of the late 19 th century? | (20) |
| Q.No.7 | Analyze how science, technology, and urbanization changed European society and culture between 1850 and 1914. | (20) |
| Q.No.8 | Explain the long-term causes of World War I (Militarism, Alliances, Imperialism, Nationalism). How did the July Crisis of 1914 act as the immediate trigger for the conflict? | (20) |

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

HISTORY OF USA

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- | | | |
|--------|--|------|
| Q.No.1 | Evaluate the War of American independence as both a colonial revolt and a global conflict involving major European powers. | (20) |
| Q.No.2 | How did the American-Spanish War in 1898 raise the United States' status as one of the leading world powers? | (20) |
| Q.No.3 | Evaluate the effectiveness of the Progressive Movement (1890-1920) in addressing the social, economic, and political problems created by industrialization and urbanization in the Gilded Age. | (20) |
| Q.No.4 | The U.S. Constitution is "a bundle of compromises." Discuss this statement with a detailed analysis of the major compromises that shaped the final document, and evaluate their long-term consequences, particularly concerning sectionalism and slavery. | (20) |
| Q.No.5 | Critically examine the evolution of U.S. foreign policy from the Truman Doctrine to the policy of Détente. What were the core assumptions, major strategies, and key events that defined this period of the Cold War? | (20) |
| Q.No.6 | Analyze the causes, key turning points, and immediate consequences of the American Civil War. To what extent was the "irrepressible conflict" truly inevitable? | (20) |
| Q.No.7 | Critically evaluate the U.S. invasion of Iraq in 2003. To what extent did American policymakers succeed in realizing their stated objectives, and how far did the unforeseen regional and global consequences undermine the very goals they sought to achieve? | (20) |
| Q.No.8 | Critically examine the extent and nature of the United States' involvement in major international conflicts since the mid-20 th century. To what extent has its participation reflected global leadership, strategic interests, or hegemonic ambitions? | (20) |

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ISLAMIC HISTORY & CULTURE (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- Q.No.1 Analyze the historical processes and mechanisms through which Islam expanded into the region of Africa. What socio-political and cultural factors facilitated this spread? (20)
- Q.No.2 Examine the significant contributions of Muslim scholars to the natural sciences during the Islamic Golden Age, with particular emphasis on advancements made in Spain (Al-Andalus), including the works of Ibn Rushd. How did these achievements influence subsequent scientific developments? (20)
- Q.No.3 Evaluate the impact of Muslim scholars in the field of medicine. Provide a detailed account of the contributions of Al-Razi, highlighting his key works and enduring legacy. (20)
- Q.No.4 What are the major contributions of Muslim civilization to architecture and Handicraft? (20)
- Q.No.5 How have Muslims contributed to the development of universities and the transmission of Islamic knowledge in Western societies? (20)
- Q.No.6 To what extent has Islamic economic thought influenced the evolution of Western economic theory and policy frameworks, particularly in areas such as finance, trade ethics, and monetary regulation? (20)
- Q.No.7 Assess the long-term influence of Baghdad's intellectual schools on Islamic civilization and beyond. (20)
- Q.No.8 Write short notes on any two of the following: (20)
1. Al-Khwarizmi
 2. Ibn Sina
 3. Ibn al-Haytham
 4. Al-Biruni

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

HISTORY OF INDIA AND PAKISTAN (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- Q.No.1 Analyze the factors that led to the British East India Company's ultimate success over its European rivals, particularly the French, in India. Was British ascendancy an inevitable outcome of superior naval power and economic organization, or was it a contingent result of specific political and military decisions made during the Carnatic Wars? (20)
- Q.No.2 Critically evaluate the legacy of Shah Waliullah's political revivalism. While his intellectual contributions are profound, to what extent were his efforts to unite the fractious Muslim nobility and invite foreign intervention a realistic political strategy in the fragmented landscape of 18th century India? (20)
- Q.No.3 Trace the evolution of Sir Syed's views on Hindu-Muslim relations, from his early inclusive statements (e.g., the 'beautiful bride' analogy) to his later, more separatist stance. Was this a fundamental ideological shift, or was it a pragmatic political realignment in response to specific events like the Hindi-Urdu controversy and the formation of the Indian National Congress? (20)
- Q.No.4 Assess the role of provincial politics, particularly in Punjab and Bengal, in the eventual success of the Pakistan Movement. Was the creation of Pakistan primarily a victory of the All-India Muslim League's central leadership, or was it critically dependent on the shifting allegiances and eventual collapse of regional, cross-communal parties like the Unionist Party? (20)
- Q.No.5 Critically assess the role of Lord Mountbatten as the last Viceroy. Was his decision to accelerate the date of independence a necessary measure to avoid a full-scale civil war, or was it a reckless act that exacerbated the administrative chaos and bloodshed of Partition? (20)
- Q.No.6 Assess the significance of the Objectives Resolution passed under Liaquat Ali Khan in 1949. Was it a visionary document that successfully balanced Islamic principles with modern democratic ideals, or was it a compromising text whose inherent ambiguities created a lasting constitutional and ideological conflict in Pakistan? (20)
- Q.No.7 Critically evaluate Prime Minister Liaquat Ali Khan's foreign policy, culminating in his visit to the United States in 1950. Was this alignment with the Western bloc a pragmatic and necessary choice for a new state seeking security and economic aid, or did it prematurely lock Pakistan into Cold War politics, sacrificing a potentially independent, non-aligned foreign policy? (20)
- Q.No.8 Analyze the 1952 Language Movement as a foundational event. How did the struggle for the recognition of the Bengali language lay the groundwork for a distinct cultural and linguistic nationalism in East Pakistan, separate from the religion-based nationalism that had created the country? (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

BRITISH HISTORY (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- | | | |
|--------|---|------|
| Q.No.1 | Analyze the fundamental nature of the British Empire. Was it primarily a commercial enterprise driven by economic interests ("a nation of shopkeepers") or was it a project of political and cultural domination guided by a sense of racial and civilizational superiority? | (20) |
| Q.No.2 | To what extent did the raft of social legislation passed between 1850 and 1900, including the Factory Acts and Coal Mines Regulation Acts, fundamentally alter the condition of the British working class? | (20) |
| Q.No.3 | Why did successive British governments in the late 19 th and early 20 th centuries fail to resolve the 'Irish Question'? Assess the relative importance of British party politics, Ulster Unionist resistance, and the radicalization of Irish nationalism in preventing a peaceful solution. | (20) |
| Q.No.4 | "The Treaty of Versailles was not a peace treaty, but a twenty-year armistice." Critically analyze this statement. | (20) |
| Q.No.5 | Compare and contrast the impact of the First and Second World Wars on Britain's global standing. Which conflict delivered the more decisive blow to Britain's economic and imperial power, ultimately sealing its decline as a world superpower? | (20) |
| Q.No.6 | To what extent was the Suez Crisis of 1956 the definitive moment that marked the end of Britain's status as a global superpower? | (20) |
| Q.No.7 | Was Margaret Thatcher's primary contribution to ending the Cold War her powerful anti-communist rhetoric, or did her government's concrete actions have a more significant and practical effect on the collapse of the Soviet Union? | (20) |
| Q.No.8 | Analyze the social and cultural transformations in Britain since the 1960s. How have large-scale immigration and the rise of multiculturalism challenged traditional notions of British identity? | (20) |

ok

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

EUROPEAN HISTORY (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions.

- | | | |
|--------|---|------|
| Q.No.1 | Analyze the First World War as a "total war," examining its impact on European societies, economies, and political systems, and evaluate the consequences of the Treaty of Versailles as a long-term cause of future conflict. | (20) |
| Q.No.2 | Investigate the Russian Revolution, detailing the causes of the Bolshevik seizure of power, the subsequent civil war, and the consolidation of a totalitarian state under Lenin and Stalin. | (20) |
| Q.No.3 | Discuss the aims and achievements of the League of Nations. To what extent did its structural weaknesses and the policies of major powers lead to its failure? | (20) |
| Q.No.4 | Compare and contrast the rise of Fascism in Italy and Nazism in Germany. Analyze their core ideologies, methods of control, and the social and economic conditions that facilitated their ascent to power during the interwar period. | (20) |
| Q.No.5 | Examine the causes and major turning points of the Second World War, including the failure of the policy of appeasement, the nature of Nazi aggression, and the Holocaust. | (20) |
| Q.No.6 | Examine the origins and evolution of the Cold War. How did ideological differences and power politics divide Europe after 1945? | (20) |
| Q.No.7 | Assess the impact of the Soviet Union's domination of Eastern Europe (1945-1960). How did it consolidate its power and respond to challenges like the Hungarian Uprising (1956)? | (20) |
| Q.No.8 | To what extent did the success of the Common Market inspire later movements toward deeper European integration, culminating in the European Union? | (20) |

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ENGLISH LITERATURE (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. Substantiate your answers with evidence from the works mentioned in the questions. Irrelevant and wrong quotes are discouraged.

- Q.No.1 Most of the British Romantic Poets were the escapists of first order; they differed only in their strategies. Critically evaluate this statement with respect to the poetry of any three of them. (20)
- Q.No.2 Charles Dickens wrings an extra tear from the readers' eyes and soon cheers them up with his humour. Support this statement by discussing any two of his novels. (20)
- Q.No.3 The fictions of Hardy and George Eliot interrogate the hypocritical, social and sexual morality of the late nineteenth century English society. Assess thoroughly with reference to their novels (one each). (20)
- Q.No.4 John Ruskins is a stylist par excellence. Vindicate this statement by referring to his essays. (20)
- Q.No.5 How does Alfred Tennyson's "Charge of the Light Brigade" glorify the superiority of the English army and why? (20)
- Q.No.6 What features of Charles Lamb's writing make him a romantic essayist? Review three of his essays to substantiate your argument. (20)
- Q.No.7 Examine critically how the poetry of William Blake is not only romantic in nature but also rich in symbols, using at least three poems as examples. (20)
- Q.No.8 Write notes on any two of the following: (20)
- a) Wit in Oscar Wilde's plays
 - b) Features of Robert Browning's dramatic monologues.
 - c) Reformist elements in Dickens' fiction.
 - d) Negative capability in Keats' poetry.

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

PERSIAN (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. Question No. 1 is compulsory.

Q.No.1 Translate one of the following passages into Persian. (20)

- (a) Sana i Ghaznavi is one of the pillars of Persian mystical poetry. He was a resident of Ghazna and served for a time as poet at the court of the Ghaznavid Sultans, composing panegyrics in praise of his patrons. At some point he underwent a spiritual conversion and, abandoning the court, went to Merv. He returned to Ghazna years later but lived in retirement, resisting the blandishments of his Ghaznavid patron Bahram Shah. Sana i's best known work is the *Hadiqat al-haqiqah wa shari at at-tariqah*. This great work expresses the poet's ideas on God, love, philosophy, and reason. It is composed of 10,000 couplets in 10 separate sections.

- (b) صفوی دور جب اپنے عروج پر تھا تو فرغانہ اور کابل میں ظہیر الدین بابر کی حکومت تھی۔ بابر کا سلسلہ نسب باپ کی طرف سے تیمور اور ماں کی طرف سے چنگیز خان سے ملتا تھا۔ بابر ایک عظیم فاتح ہونے کے ساتھ ساتھ موسیقی، فن اور شعر و ادب کا شیدائی تھا۔ اس نے ترکی زبان میں اپنی سرگزشت لکھی جو "ترک بابری" کے نام سے موسوم ہے۔ اس کا ترجمہ "بابر نامہ" کے عنوان سے عبدالرحیم خان خاناں نے کیا۔ بابر کے بعد ہمایوں تخت نشین ہوا۔ اس نے شیر شاہ سوری کے ہاتھوں شکست کھائی اور ایران میں پناہ لی۔ وہ بالآخر صفوی تاج دار شاہ طہماسپ کی مدد سے کھوئی ہوئی سلطنت حاصل کرنے میں کامیاب ہو گیا۔

Q.No.2 Write a detailed note on Pehlavi language, its development, script and literature. (20)

Q.No.3 Describe the significance of Shahnameh Firdowsi in the history of Persian epic literature, give arguments. (20)

Q.No.4 Write short notes on any two of the following: (20)

- Founder of the modern Persian poetry, life, works and style.
- Write a note on development of Persian Ghazal.
- Write a note on Iqbal and Nasr i Nou.
- Bazgasht i Adabi movement in Iran.

Q.No.5 Discuss the poetry and prose of Samanid period. (20)

Q.No.6 Discuss major characteristics of Sabk i Hindi and also briefly write about its significant poets. (20)

Q.No.7 Write an essay on anyone of the following: (20)

- (الف) خمسہ نظامی گنجوی۔
(ب) خودی و مراحل سہ گانہ آن در شعر علامہ اقبال۔
(ج) ابمیت گلستان سعدی در ادبیات اخلاقی فارسی۔
(د) شاعران معروف قصیدہ سرا در شعر فارسی۔

Q.No.8 Do as directed (Change the following sentences as directed in brackets). (20)

- | | |
|--|------------------|
| 1. من علی رادر دانشگاه دیدم۔ | (ماضی بعید) |
| 2. شما چرا بہ حرف های استاد گوش ندادید۔ | (فعل حال اخباری) |
| 3. ما با دوستان بہ سینما رفتہ بودیم۔ | (فعل آیندہ) |
| 4. قطار ساعت شش از ایستگاه حرکت می کند۔ | (ماضی قریب) |
| 5. علی ناہار ش را خوردہ است۔ | (فعل امر) |
| 6. انہا بہ پدر شان نامہ می نویسند۔ | (ماضی مطلق) |
| 7. شما با صدای بلند حرف می زدید۔ | (فعل نہی) |
| 8. من اسب سواری را دوست دارم۔ | (فعل گزشتہ) |
| 9. پزشک بیمار ان را بہ رایگان معالجہ می کرد۔ | (فعل حال اخباری) |
| 10. ماشین دہ دقیقہ از این مسیر رد شدہ است۔ | (ماضی احتمالی) |

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ARABIC (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions from the following. Question No. 8 is compulsory.

- Q.No.1 Evaluate the use of Jahili poetry by early Islamic historians and philologists as a source for understanding the pre-Islamic era. How do literary and historical aims intersect or conflict? (20)
- Q.No.2 What are the key linguistic features that distinguish the Qur'an from pre-Islamic Arabic poetry and prose, and how do these contribute to its claim of Ijaz ul Quran? (20)
- Q.No.3 How did Al-Jahiz contribute to establishing the foundations of Arabic literary criticism (النقد الأدبي العربي)? (20)
- Q.No.4 How does pre-Islamic poetry reflect the socio-political structure of the Arabian Peninsula, particularly in relation to tribalism, warfare, and the role of the poet as spokesman and propagandist? (20)
- Q.No.5 What were the key contributions of Sibawayh's book, Al-Kitab, to the study and understanding of Arabic grammar, and which methodologies set his work apart from earlier linguistic traditions? (20)
- Q.No.6 Who was Jibran Khalil Jibran, and what are the main themes explored in his literary works? (20)
- Q.No.7 Critically analyze Ibn Khaldun's concept of Asabiyyah (العصبية) and its explanation of the cyclical rise and fall of civilizations, discussing how this theory challenges or complements modern sociological and historical perspectives on state formation and social cohesion. (20)
- Q.No.8 (20)
- اكتب مقالاً حول موضوعين فقط من المواضيع التالية.
1. أثر الحديث النبوي في الأدب العربي
2. مكانة المرأة في الإسلام
3. مفردات القرآن للراغب الأصفهاني
4. تاج العروس للزبيدي

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

URDU PAPER-I

Time Allowed: 03 Hours

Total Marks: 100

حصہ اول

- (25) سوال 1: درج ذیل عنوانات میں سے کسی ایک پر جامع مضمون قلم بند کیجیے:
- i. جدید ذرائع ابلاغ میں اردو کا استعمال۔
 - ii. سوشل میڈیا: آزادی یا ذہنی انتشار۔
 - iii. سیاحت کے فروغ میں قومی اور مقامی زبانوں کا کردار۔
- (20) سوال 2: درج ذیل میں سے کسی دو پر تفصیلی جواب فراہم کیجیے:
- i. اردو زبان کی ترویج میں صوفیائے کرام کا حصہ۔
 - ii. برصغیر میں مسلمانوں کی آمد کے لسانی اثرات۔
 - iii. اردو ادب کی اسلامی شناخت۔
- (15) سوال 3: موزوں عنوان کے ساتھ درج ذیل عبارت کی تھیں کیجیے، جو ایک تہائی سے زیادہ نہ ہو۔

اس طرح ہمارے یہاں بھی پید اواری طاقتوں اور پید اواری رشتوں میں کشش ہے اور ہم ایک نئے سماجی انقلابی عہد میں ہیں لیکن ہماری کشش اور ہمارے انقلاب کی نوعیت اتنی مختلف ہے کہ جب تک اس کی کچھ تاریخ بیان نہ کی جائے اس کا سمجھنا مشکل ہے۔ اکبر کے عہد سے لے کر اٹھارویں صدی کے اختتام تک باوجود مغلیہ سلطنت کے زوال کے، ہندوستان دنیا کی نظر میں ایک صنعتی ملک تھا، چنانچہ ایسٹ انڈیا کمپنی کی سب سے بڑی آرزو یہاں کی بیرونی تجارت کو اپنے ہاتھ میں لینے کی تھی تاکہ وہ کم سے کم دام اور محصول ادا کر کے یہاں کا سامان یورپ بھیج سکے، لیکن یہاں کی لوٹی ہوئی دولت سے انگلستان میں سرمایہ زیادہ اکھٹا ہوا، تجرباتی علوم اور ٹکنالوجی کے میدان میں ترقی ہوئی اور صنعتی انقلاب آیا تو صنعتی سرمایہ داروں نے تاجرانہ سرمایہ داری یعنی ایسٹ انڈیا کمپنی کو بے دخل کر کے ہندوستان کی معاشیات کو اپنی ضرورت کے مطابق ڈھالا، یعنی یہاں کی صنعت کو تباہ کر کے اسے ایک خالص زرعی ملک میں تبدیل کر دیا۔

حصہ دوم

- کوئی سے دو سوالات کے جواب تحریر کیجیے۔
- (20) سوال 4: دہلی میں اردو غزل کے ارتقا کا جائزہ لیجیے۔
- (20) سوال 5: لکھنؤ میں اردو شاعری کی اہم خصوصیات پر تبصرہ کریں۔
- (20) سوال 6: فورٹ ولیم کالج کی نثری کتب کا تعارف پیش کریں۔
- (20) سوال 7: پاکستان میں اردو افسانے کا جائزہ لیں۔
- (20) سوال 8: اردو میں رومانوی تحریک پر سیر حاصل بحث کریں۔

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

PASITO

Time Allowed: 03 Hours

Total Marks: 100

Note: Question No. 1 & 2 are compulsory. Attempt any three from the remaining questions.

(14)

سوال 1: ورکړے شوے عبارت په پښتو کښي ترجمه کړئ.

الف

A Clean and Green Pakistan is not merely an aesthetic ambition-it is the lifeline of our nation's future. The land that once echoed with the fragrance of orange blossoms and jasmine now struggles under the weight of urban smog and deforestation. As the adage goes, "We do not inherit the earth from our ancestors; we borrow it from our children." If we continue to treat our soil as a dumping ground and our rivers as sewers, we will sow the wind and reap the whirlwind. The road to a verdant Pakistan lies in grassroots action-community gardens in barren plots, rooftop plantations in crowded cities, and eco-friendly alternatives replacing harmful plastics. When citizens become custodians of their environment, cleanliness transforms from a campaign into a culture, and Pakistan can blossom into the emerald heart of South Asia once more.

(06)

ب: په ورکړه شوو متلونو کښي دري متلونو د انگریزي نه ترجمه کړئ.

1. When the head is alive, caps are many.
2. By the time truth is known, lies will have destroyed the village.
3. If you have money, there is no need to make request.
4. When you reach old age you become pious.
5. As the donkey, so the load.
6. Some say, what I shall do with it, others say where shall I find it.

(14)

سوال 2: د ورکړه شوي پښتو عبارت انگریزي وليکئ.

الف

خدا ځای پاک چې په یو لوبښي کوم داسي لازوال رس واخلو او بیاني په کښي د عبادت عطر ورکړه کړل او هم د نیکي د گلونو وږمې، د خلوص خوند، ښه اخلاق، صبر او قرباني ټي په کښي گډ کړل او بیاني خپل لوی حکمت سره د بخښني او درگزر په یو انساني صورت کښي تباره کړه او د مور په شکل کښي ټي د دنیا مخ ته راواستوله، هر ښاران وائي "مور د اسمان نه رالیرلي عظیمه تحفه ده" د انسان ژوند د ټولنه لوی، خوږ، گران، په زړه پوري او ښکلی لفظ (مور) دے. د مور ټکي د مینې او امید نه ترتیب شوی دے. د زړه کومي راوتونکي دغه لفظ (مور) د یو زوي د پاره د هر څه نه غوره دے، مور چې توده غیږه ټي د ږیره دردونو دوا ده. د دردونو نه ډک ژوند کښي د سکون او آرام مرهم د رحم او مهرباني او قرباني څرگنده مجسمه دوه د غربت او مسافري په ورځو شپو کښي د دعا د امید بله ډیوه ده. بس فقط یوه مور..... دا یوه داسي مقدسه هستي ده چې په مونږ د خپلي مینې خواږه ویشي او هر وخت مو په خپلو دعا گانو رنگ کوي.

(06)

ب: په ورکړه شوو متلونو کښي دري متلونو د انگریزي ته واورئ.

- i. خوارې د چا او ښه نه وړي.
- ii. خواره خلخه او خبرې خبرې.
- iii. خود غرضه (مطلبې) په خټه اور لکوي.
- iv. سترگي د سترگو شرمیري.
- v. د خوار ملا په بانگ څوک کلیمه نه وائي.
- vi. خرغیرت کړی و نه نو لاري ووو.

(20)

سوال 3: د عبد الحمید بابا شاعري د تخیل، صنائع، استعارو او تشبیهاتو په لحاظ ځانگړې معیار لري. د دې نکتو په رڼا کښي د ده په شاعري بحث وکړئ.

(20)

سوال 4: د پښتو اولسي ادب چې زمونږ ژبې او ژوند امین او ضامن دے په قیصو، متلونو، تېو، چاربتو او بدلو باندې اړه لري. په دې اصنافو باندې تفصیلي رڼا واچوئ.

(20)

سوال 5: د پښتو ډرامې په ابتدا او ارتقاء د خپلو خیالاتو څرگندونه وکړئ.

(20)

سوال 6: د رحمان بابا د کلام په فني خصوصیاتو او شعري ښکلا باندې تبصره وکړئ او په مثالونو کښي ټي شعرونه هم پیش کړئ.

(20)

سوال 7: په لاندې ورکړه شوو جدیدو شاعرانو کښي د یو شاعر په ژوند او فن باندې د خپلې مطالعې نچور ولیکئ.

۱. سلیم راز
۲. ډاکټر محمد اعظم اعظم
۳. رحمت شاه سانل

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ENGLISH LITERATURE (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. Substantiate your answers with evidence from the works mentioned in the questions. Irrelevant and wrong quotes are discouraged.

- Q.No.1 According to T.S. Eliot, Shakespeare's play "*Hamlet* is an artistic failure because it lacks objective correlative." Critically evaluate this remark with examples from the text.
- Q.No.2 G.B. Shaw's *Pygmalion* debunks the hypocrisy of English people. Discuss with a focus on the characters of professor Higgins and Eliza Doolittle.
- Q.No.3 Jane Austen was a Marxist before Marx. Justify this statement with a critical lens on *Pride and Prejudice*.
- Q.No.4 How does W.B. Yeats engage with the horrors of the First World War and the Irish Issue in "The Second Coming"? Also comment on how/ why he questions the Christian doctrine of redemption in this poem.
- Q.No.5 Does D.H. Lawrence's *Sons and Lovers* subscribe to or elude the Freudian concept of Oedipus complex?
- Q.No.6 *Old Man and the Sea* is the finest illustration of Hemingway's action philosophy and economy of language. Discuss.
- Q.No.7 "Nothing happens. Nobody comes, nobody goes, it's awful." Quintessentially represents the existential angst. Discuss with reference to the "actions" of the tramps in *Waiting for Godot*.
- Q.No.8 Robert Frost is of the view that "a good poem begins in delight and ends in wisdom." Justify this statement in the light of "Mending Wall" and "Road Not Taken".

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

PERSIAN (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt All five questions. All questions carry equal marks.

1. یکی از اجزای زیر را به انگلیسی ترجمه کنید: (20)
 - (الف) در غم ما روزها بیگاه شد / روزها گر رفت گو رو پاک نیست
 هر که جز مایی ز آتش سیر شد / گر بریزی بحر را در کوزه ای
 کوزه چشم حریصان پُر نشد / تا صدف قانع نشد پُر دُر نشد
 - (ب) آسایش دو گیتی تفسیر این دو حرف است / خوبان پارسی گو بخشندگان عمر اند
 بنگام تلگدستی در عیش کوش و مستی / آئینه سکندر جام می است بنگر
 - (ج) نوجوانان تشنه لب، خالی ایام / کم نگاه و بی یقین و نا امید
 مکتب از مقصود خویش آگاه نیست / خشت را معمار ما کج می نهد
 صد کتاب آموزی از ابل بنر / خوشتر آن درسی که گیری از نظر
2. از اجزای زیر فقط دو (2) جزو را به انگلیسی یا اردو ترجمه کنید: (20)
 - (الف) اعرابی را دیدم که پسر را همی گفت "یا بنی انک مسئول یوم القیامه ما ذا اکتسبت ولا یقال بمن انتسبت" یعنی تو را در روز قیامت خواهند پرسید که عملت چیست، نگویند پدرت کیست؟
 - (ب) حکیمی پسران را بلند بومی داد که جان پدر بنر آموزید که ملک و دولت دنیا اعتماد را نشاید و سیم و زر در سفر بر محل خطر است یا دزد به یکبار ببرد یا خواجه به تفاریق بخورد. اما بنر چشمه زاینده است و دولت پاینده و گر بنر مند از دولت بیفتد غم نباشد که بنر در نفس خود دولت است، بر جا که رود قدر بیند و در صدر نشیند و بی بنر لقمه چیند و سختی بیند.
 - (ج) بدان ای پسر که اگر جوانمردی ورزی اول بدان که جوانمردی چیست و از چه خیزر، پس بدان که سه چیز است از صفات مردم که بیچ مردم را نیایی که بر خوشتن هم گواهی دهد که این مرا نیست. دانا و نادان و خردمند همه بدین از حق تعالی خوشنود اند، اگر چه حق تعالی کم کس را داده است این سه چیز، و بر که را که این سه چیز باشد از جمله خاصگیان حق تعالی باشد: اول خرد، دوم راستی، سوم مردانگی.
3. یکی از اجزای زیر را به زبان اردو یا انگلیسی ترجمه کنید: (20)
 - (الف) شطرنج ملک باخت ملک با هزار شاه / شاهی تو از سکندر بیشمی، بدان جهت
 تو کار با به نیزه و تیر و کمان کنی / او کار با به حیل و کلک و دوات کرد
 - (ب) از خدا جوییم توفیق ادب / بی ادب محروم ماند از لطف رب
 بی ادب نه تنها خود را داشت بد / بلکه آتش جمله در آفاق زد
 بر که بی باکی کند در راه دوست / رهزن مردان شد و نامرد اوست
 از ادب پُر نور گشته است این فلک / و از ادب معصوم و پاک آمد ملک
4. در باره یکی از موضوعات زیر به زبان فارسی مقاله بنویسید: (20)
 - (الف) اهمیت مثنوی معنوی در شناخت ذات انسان و شناخت وجود خدا
 - (ب) اهمیت کتاب "گلستان" سعدی در تربیت انسان
 - (ج) ارزش و اهمیت آموزش زبان فارسی بر ای دانستن فرهنگ و تمدن همسایه گان
5. به دو سوال زیر به فارسی جواب دهید: (20)
 - (الف) رموز و معانی رباعیات عمر خیام چیست مثال بیاورید؟
 - (ب) قابوس نامه در باره چه است و اهمیت آن چیست؟
 - (ج) در باره اهمیت اشعار فارسی علامه اقبال بنویسید؟

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ARABIC (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions from the following. Question No.7 and 8 are compulsory.

- Q.No.1 Write a detailed note on Zuhair bin Abi Sulma and his *Mulaqqah*, discussing the significance of his poetry in the context of pre-Islamic Arabic literature. (20)
- Q.No.2 Evaluate the role of Hassan ibn Thabit as the Prophet Muhammad's (ﷺ) poet in shaping early Islamic identity. (20)
- Q.No.3 Discuss the main developments in Islamic philosophy as presented by Dr. De Boer in "The History of Philosophy in Islam". (20)
- Q.No.4 Discuss the contributions of Isa an-Na'uri to Mahjar literature through his work *Adab al-Mahjar*. (20)
- Q.No.5 Translate the following into English or Urdu: (20)

فَفَاضَتْ دُمُوعُ الْعَيْنِ مِنْى صَبَابَةً عَلَى النَّحْرِ حَتَّى بَلَ دَمْعِي مَحَلًى
أَلَا رَبُّ يَوْمَ لَكَ مِثْنُ صَالِحٍ وَلَا سِوَمَا يَوْمَ بِذَارَةٍ جَلْجَلٍ
وَيَوْمَ عَقَرْتَ بِلْعَذَارَى مَطْلَبِي فَيَا عَجَباً مِنْ كُورِهَا الْمُتَحَمِّلِ
فَطَلَّ الْعَذَارَى يَزْتَمِينَ بِلَحْمِهَا وَشَحْمِ كَيْدَابِ الدَّمْعِ الْمُقْتَلِ

OR

بَلِّغْ دُرَّ عِصَابَةٍ لَا قَبِيحُهُمْ يَا ابْنَ الْحَقِيقِ وَأَنْتَ يَا ابْنَ الْأَشْرَفِ
يَسْرُونَ بِالْبَيْضِ الْخِفَافِ إِلَيْكُمْ بَطْرَأُ كَأْسِي فِي عَرِينِ مُغْرِبِ
حَتَّى أَتَوْكُمْ فِي مَحَلِّ بِلَادِكُمْ فَسَوَّكُمْ حَتْفًا بَيْضَ قَرْقَبِ
مُسْتَبْصِرِينَ بِنَصْرِ دِينِ نَبِيِّهِمْ مُسْتَصْغِرِينَ لِكُلِّ أَمْرٍ مُجْجِفِ

- Q.No.6 ناقش مسرحية سر المحترارة لتوفيق الحكيم من كتابه مسرحيات توفيق الحكيم. حلل الموضوعات الرئيسية والأساليب الدرامية وأهمية المسرحية في المسرح العربي الحديث. (20)
- Q.No.7 بين اسهامات كتاب الدكتور طه حسين الادب العربي الحديث في تطور الادب العربي ونظراته النقدية للتراث العربي. ناقش الموضوعات الرئيسية وتأثير هذا العمل على الفكر الأدبي المعاصر. (20)
- Q.No.8 اكتب مقالاً حول موضوعين فقط من المواضيع التالية. (20)

1. أثر الاسلام في الأدب العربي.
2. امرؤ القيس (الشاعر الجاهلي)
3. الأدب العربي في شبه القارة الهندية.
4. الكتاب: أدب الكاتب لابن العميد

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

URDU PAPER-II

Time Allowed: 03 Hours

Total Marks: 100

حصہ اول

سوال 1: حوالہ متن کے ساتھ درج ذیل شعر پاروں میں سے ایک کی تشریح کیجیے۔

(20)

الف۔ وہ بجلی کا کڑکا تھا یا صوت ہادی
 عرب کی زمیں جس نے ساری بلا دی
 نئی اک گھن دل میں سب کے لگا دی
 اک آواز میں سوتی ہستی چمکا دی
 پڑا ہر طرف غل یہ پیغام حق سے
 کہ گونج اٹھے دشت و جبل نام حق سے

ب۔ غبار رونے کروٹ بدلی، جاگا
 اٹھا، اک دو قدم تک ساتھ بھاگا
 پیادے شو کروں گا یہ تسلسل
 یہی پرواز بھی، افتادگی بھی،
 متاعِ زیست اس کی بھی، مری بھی

سوال 2: حوالہ متن اور سیاق و سباق کے ساتھ درج ذیل نثر پاروں میں سے ایک کی تشریح کیجیے۔

(20)

الف۔ لیکن یہ سب جو کچھ ہوا وہ انسانوں کی ظاہری فطرت کی پابندی تھی۔ ورنہ ایک پیغمبر کا فرض، ایک مقنن اور ایک عام مدبر کے فرائض سے بدرجہا بلند ہے۔ اسلام کے قانون تعزیرات نے جو کچھ کام کیا، قرآن کا روحانی اثر و خاتم الانبیاء ﷺ کا فیض تلقین اس سے پہلے فرد قرار داد جرم کی دفعات کو بالکل مٹا دیتا تھا، قانون و خوف تعزیر صرف بازاروں میں اور انسان کے عام مجموعوں میں جرائم سے باز رکھ سکتا ہے، لیکن دعوت اسلام کے فیض اثر نے دلوں کو بالکل خدا کے سامنے کر دیا، جو رات کی تاریکیوں میں بھی دیکھتا تھا، اور مقفل دروازوں کی کھڑکیوں سے بھی جھانکتا تھا۔
 دفعتاً اب تمام ملک میں امن و امان تھا۔

ب۔ مصیبت یہ تھی کہ ہر کتاب، ہر مصنف کے متعلق ان کی اپنی رائے تھی۔ بے لاگ اور اٹل، جس کا اظہار و اعلان بالبحر وہ بمنزلہ دینی فرض سمجھتے تھے۔ چنانچہ بارہا ایسا ہوا کہ انھوں نے مجاہد کو کتاب خریدنے سے جبراً باز رکھا کہ اس سے اس کا ادبی ذوق خراب تر ہونے کا اندیشہ تھا۔ سچ تو یہ ہے کہ وہ کتب فروش کم اور کتب نماز یادہ تھے۔ کبھی کوئی خریدار بلکی پشیمانی کتاب مانگ مینست تو بڑی شفقت سے جواب دیتے "یہاں سے دو گلیاں چھوڑ کر سیدھے بات کو مزہ جائیے۔ پر لے کر پر چوڑیوں کی دکان کے پاس ایک لیٹر بکس نظر آئے گا۔ اس کے ٹھیک سامنے جو اونچی سی دکان ہے۔ بچوں کی کتابیں وہیں ملتی ہیں۔"

حصہ دوم

کوئی سے تین سوالات کے جواب تحریر کیجیے۔

سوال 3: "سردادی سینا" کے حوالے سے فیض کی شاعری کا تنقیدی جائزہ تحریر کیجیے۔

(20)

سوال 4: غالب کی شاعری کے کون سے بنیادی اوصاف انھیں بہترین شاعر بناتے ہیں؟ بحث کیجیے۔

(20)

سوال 5: خضر راہ کی روشنی میں اقبال کے شعری موضوعات کا احاطہ کیجیے۔

(20)

سوال 6: پاکستان میں اردو افسانے کا جائزہ لیں۔

(20)

سوال 7: اداس نسلیں کا تاریخی اور سیاسی حوالوں سے جائزہ لیں۔

(20)

سوال 8: احمد ندیم قاسمی کی کتاب کپاس کے پھول پر تفصیلی تبصرہ کریں۔

(20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

LAW (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions from the following by choosing at least one question from each part. All questions carry equal marks.

Part – A

(The Code of Civil Procedure, 1908)

- Q.No.1 Discuss the object and scope of the Civil Procedure Code (CPC), 1908. How does the Code balance procedural technicalities with the need to ensure substantial justice? (20)
- Q.No.2 Explain the concept of jurisdiction under the Civil Procedure Code. Distinguish between lack of jurisdiction and irregular exercise of jurisdiction. What are the legal consequences of each? (20)
- Q.No.3 Explain the distinction between appeal, review, and revision under the CPC. How does each serve as a separate mechanism of judicial control and error correction? (20)

Part – B

(The Contract Act, 1872)

- Q.No.4 Discuss the distinction between void, voidable, and illegal contracts. How does this classification affect the rights and liabilities of the parties? (20)
- Q.No.5 Discuss the rules relating to offer and acceptance. How do communication, revocation, and lapse of offer affect the formation of a valid contract? (20)
- Q.No.6 Explain the remedies for breach of contract under the Contract Act. Critically assess whether compensation for mental or indirect loss is recognized. (20)

Part – C

(Law of Torts)

- Q.No.7 Critically examine the difference between tortious liability, contractual liability, and criminal liability. Why is intention less significant in tort than crime? (20)
- Q.No.8 Explain the concept of nuisance as a tort. Distinguish between public and private nuisance and discuss the available remedies. (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

CONSTITUTIONAL LAW

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- | | | |
|--------|--|------|
| Q.No.1 | Define the constitutional law and describe its various classifications such as Federal, Confederal and Unitary. | (20) |
| Q.No.2 | Write a comprehensive note on the rights and obligations of citizens in the Constitution of The Islamic Republic of Pakistan. | (20) |
| Q.No.3 | Examine the principle of sovereignty. How does parliamentary sovereignty in the UK differ from popular sovereignty in France or India? | (20) |
| Q.No.4 | Discuss composition and functions of "The Constitutional Council" under the French Constitution. | (20) |
| Q.No.5 | Describe the Judicial Organ in the French Constitution, its functioning and control. | (20) |
| Q.No.6 | Discuss the Principle of "Separation of Power" as enunciated in the constitution of United States of America. | (20) |
| Q.No.7 | Elaborate the statement "The Soviet state is organized and functions on the principle of democratic centralism" prescribed in Article 3 of the Constitution of USSR, 1977. | (20) |
| Q.No.8 | Discuss the salient features of the British Constitution. | (20) |

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

LAW (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions from the following by choosing at least one question from each part. All questions carry equal marks.

Part – A

(Criminal Procedure Code, 1898)

- Q.No.1 Discuss the classification of criminal courts and their respective powers under the Criminal Procedure Code (CrPC), 1898. How does this hierarchy ensure fair administration of criminal justice? (20)
- Q.No.2 Discuss the provisions regarding compounding of offences under Section 345 CrPC. What principles govern which offences can be compounded and by whom? (20)
- Q.No.3 Critically analyze the law relating to trial of cases in absentia. What constitutional and procedural safeguards apply to such proceedings? (20)

Part – B

(Pakistan Penal Code (PPC), 1860)

- Q.No.4 Analyze the concept of criminal conspiracy under Section 120-A PPC. How does conspiracy differ from abetment? (20)
- Q.No.5 Examine the offence of defamation under Sections 499-502 PPC. How does the Code balance protection of reputation with freedom of expression? (20)
- Q.No.6 Discuss the provisions relating to offences against public tranquility under the PPC. How do these provisions safeguard public order while protecting individual rights? (20)

Part – C

(Qanun-e-Shahadat Order, 1984)

- Q.No.7 Critically analyze the principle of relevancy under Articles 17 to 55 of the Order. How does relevancy differ from admissibility? (20)
- Q.No.8 Examine the presumptions and burden of proof under the Qanun-e-Shahadat Order. How do Articles 117-129 shift the evidential burden between parties? (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

INTERNATIONAL LAW

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 The scope of International law has widened to include individuals and non-state entities. Discuss. (20)
- Q.No.2 What is the relationship between International law and Municipal law? Explain in the light of theories propounded by different jurists. (20)
- Q.No.3 Define treaty. How is it concluded and terminated. Explain in the light of Vienna Convention on Law of Treaties, 1969. (20)
- Q.No.4 What is the status of UN Charter? Is it just a piece of legislation or otherwise? Does the Charter fulfill the requirements of modern International law or need amendments? Give sound legal arguments. (20)
- Q.No.5 Critically evaluate different sources of International law in the light of Article 38 of the Statute of ICJ. (20)
- Q.No.6 Write a detailed note on the regime of Law of the Sea with reference to High Seas and Exclusive Economic Zone. (20)
- Q.No.7 Explain different methods of acquiring and losing territory under International law. (20)
- Q.No.8 Explain in detail amicable methods of settlement of international disputes. Justify your answer by giving relevant examples. (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

INTERNATIONAL RELATIONS

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 The rise of China is widely interpreted as a revival of balance of power politics, signaling a global shift toward multipolarity. Analyze the political, strategic and economic factors that are shaping the new international order. (20)
- Q.No.2 Critically evaluate the resilience of Indus Basin Treaty as a cornerstone of hydrological security in South Asia. To what extent can this agreement continue to safeguard water-sharing arrangements from broader geo political tension between India and Pakistan, particularly in an era of increasing water scarcity and climate change? (20)
- Q.No.3 Analyze the expansion of BRICS and Shanghai Cooperation Organization (SCO) through the lens of structural realism. Are these organizations best understood as nascent challengers to a US-led liberal international order, or their internal divisions too significant to pose coherent alternative? (20)
- Q.No.4 Abraham Accord has been described as re-aligning Middle East geopolitics. Critically assess the impact of this new diplomatic architecture on a viability of two-state solution for Israel-Palestine conflict. Does it create new leverage for peace or further marginalize the Palestinian issue? (20)
- Q.No.5 How does cross border terrorism affect regional stability? Critically assess Pakistan-Taliban security crisis. What are the implications of Taliban resurgence in Afghanistan for Pakistan external and internal security environment particularly in Baluchistan and Khyber Pakhtunkhwa? (20)
- Q.No.6 Evaluate the interplay of diplomacy and propaganda in shaping ties between states. To what extent do these tools serve as mechanisms of conflict resolution versus instruments of power projection in the modern international system? (20)
- Q.No.7 Critically evaluate the three main theoretical approaches to International Relations-Realism, Liberalism and Constructivism. Which approach best explains current global politics? (20)
- Q.No.8 Discuss the evolution of modern state system from the Treaty of Westphalia to present day. How has globalization challenged the principles of sovereignty and non-interference? (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

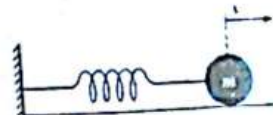
PHYSICS (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five complete questions.

- Q.No.1 (a) Define and explain the gradient of a scalar function, and prove that $\text{grad } S = \nabla S$. (10)
- (b) If F is a vector, prove that $\text{Div. Curl } \vec{F}$ (06)
- (c) We know the addition, subtraction, and multiplication of vectors. Why don't we discuss the division of vectors? Is it possible to define such an operation? (04)
- Q.No.2 (a) Explain relativity of simultaneity. (06)
- (b) Prove the relativistic energy relation $E^2 = p^2 c^2 + m_0^2 c^4$ where m_0 is the rest mass (08)
- (c) A Tevatron at the Fermi National Accelerator Laboratory accelerates protons to a kinetic energy of about 1 TeV (10^{12} eV). What is the speed of a proton? (06)
- Q.No.3 (a) State and explain Kepler's three laws of planetary motion. Show how the third law can be derived from Newton's law of gravitation. (10)
- (b) A satellite revolves around the Earth in a circular orbit at an altitude of 1000 km above the Earth's surface. Find the orbital period (T) of the satellite in minutes. (06)
- Use: $R_E = 6.37 \times 10^6$ m, $M_E = 5.97 \times 10^{24}$ kg, $G = 6.67 \times 10^{-11}$ N.m²/kg²
- (c) Explain why astronauts in an orbiting spacecraft feel weightless, even though they are under the influence of Earth's gravity. (04)
- Q.No.4 (a) State Simple Harmonic Oscillator. The kinetic energy and potential energy of simple harmonic oscillators is: (07)
- $E = K + U = \frac{1}{2}mv^2 + \frac{1}{2}kx^2$ where $x = A \cos(\omega t + \phi)$ Show graphically:
- (i) The variations of KE and PE with time
- (ii) The variations of KE and PE with displacement x .
- (b) Consider a mass of 0.80 kg is attached to a horizontal spring having spring constant $k = 180 \text{ Nm}^{-1}$. At time $t = 0$, the mass is observed to be 0.04 m from the wall than the equilibrium position and is moving away from the wall with velocity 0.5 ms^{-1} (07)



- Find the numerical values of amplitude (meter), phase angle (in radian) and angular frequency (radian per sec), also write the displacement of the mass in terms of the said numerical values.
- (c) Derive the one-dimensional wave equation for a stretched string and show that $y(x, t) = f(x \pm vt)$ is a solution of the wave equation. (06)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

GEOLOGY (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 Discuss the Internal structure of the Earth and critically analyze how the dynamics of Lithospheric plates influence major geological processes. (20)
- Q.No.2 Explain the origin, characteristics, and geological significance of primary sedimentary structures, and critically analyze how structural features in metamorphic rocks differ in terms of formation processes and tectonic implications. (20)
- Q.No.3 Discuss the classification of secondary geological structures with reference to their tectonic origin. How do folds, faults, joints and cleavage contribute to interpreting crustal deformation? (20)
- Q.No.4 Describe the morphology and evolutionary history of Foraminifera. Evaluate their geological distribution and significance in biostratigraphy, paleoenvironmental reconstruction, and petroleum exploration. (20)
- Q.No.5 Explain the major principles of stratigraphic correlation. Evaluate how these principles are applied to understanding the origin, evolution, and hydrocarbon potential of major sedimentary basins of Pakistan. (20)
- Q.No.6 Discuss the formation, texture, and mineralogical characteristics of plutonic and volcanic rocks. How do these features reflect differences in cooling history, tectonic setting, and magma chemistry? (20)
- Q.No.7 Examine the major sedimentary environments and associated depositional process. How do variations in energy conditions, climate, and basin dynamics influence the resulting sedimentary facies? (20)
- Q.No.8 Provide a detailed account of the principal types of metamorphic rocks. Discuss how temperature, pressure, fluids, and protolith composition control metamorphic mineral assemblages and textures. (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

GEOGRAPHY (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- | | | |
|--------|---|------|
| Q.No.1 | Describe the internal structure of the Earth and explain how seismic wave behavior provides evidence for the layering of the Earth's interior. Evaluate the scientific reliability of seismic methods in understanding deep Earth processes. | (20) |
| Q.No.2 | Explain the origin of ocean tides and critically examine the major theories proposed to explain tidal behavior. How do local coastal configurations influence tidal patterns? | (20) |
| Q.No.3 | Discuss the major forms of precipitation and the atmospheric mechanisms that produce them. Support your answer with suitable regional and local examples illustrating each type. | (20) |
| Q.No.4 | Analyze the formation and development of tropical weather systems with reference to hurricanes. Describe the weather patterns associated with hurricanes and the environmental factors influencing their intensity. | (20) |
| Q.No.5 | Explain the basis of the First Letter Classification in the Koppen Climate Classification System. Compare and contrast the Af (tropical rainforest) and Aw (tropical savanna) climates in terms of distribution, temperature-precipitation regimes, and ecological characteristics. | (20) |
| Q.No.6 | Discuss the environmental conditions necessary for the development of Karst Landscapes. Describe the major Karst Landforms and evaluate the processes responsible for their evolution. | (20) |
| Q.No.7 | Explain the principles behind the construction and interpretation of weather maps. How are modern weather forecasts generated, and what are the limitations of current forecasting technologies? | (20) |
| Q.No.8 | Describe the factors controlling salinity of sea water. Critically analyze the spatial and vertical variations in salinity across the world's ocean and explain their influence on ocean circulation and marine environments. | (20) |

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

CHEMISTRY (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 Discuss the development of quantum theory and its application to atomic structure. Derive and explain the Schrodinger wave equation for a particle confined in a one-dimensional box. Explain the quantum mechanical treatment of the hydrogen atom. (20)
- Q.No.2 Discuss the theory of strong electrolytes and derive the Debye-Huckel equation for activity coefficients. Explain how this theory helps in understanding ionic equilibria in dilute solutions. (20)
- Q.No.3 State and explain the First Law of Thermodynamics. Derive the relationship between internal energy, enthalpy, and work done during constant pressure and constant volume processes. Derive the expression for Gibbs free energy (ΔG) and show its significance in predicting spontaneity and chemical equilibrium. (20)
- Q.No.4 Write a comparative account of the oxides of carbon (CO and CO₂) with respect to preparation, properties, and toxicity. Discuss the chemistry of nitrides and oxides of nitrogen, giving structures, oxidation states, and environmental implications. (20)
- Q.No.5 Describe the metallurgical processes involved in the extraction of copper and aluminum from their ores. Discuss the principles, major steps (concentration, roasting / calcination, smelting, electrolysis), and important reactions involved in each process. (20)
- Q.No.6 Explain the composition, manufacturing process, types and applications of glass. (20)
- Q.No.7 Describe the nature of coordinate bond and the historical development of coordination chemistry. Apply Crystal Field Theory (CFT) to explain the structure, bonding, and properties of tetrahedral and octahedral complexes. (20)
- Q.No.8 Discuss the sources, types and control methods of water pollution. Explain the chemical and biological treatment processes for wastewater. (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

BOTANY (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 Differentiate between phycology and phycologist. How can you classify the algae on the basis of their structures? Elaborate your answer with suitable examples. (20)
- Q.No.2 Why is the seeds dispersal important for the reproduction of plants? How are these methods helpful to enhance the diversity of plants? (20)
- Q.No.3 How would you write and justify your answer on the topic of 'ontogeny of gymnosperm and its significant effects on environment'? (20)
- Q.No.4 Write down the evolution of sporophytes in the life cycle of bryophytes. Construct the life cycle of bryophytes to support your answer. (20)
- Q.No.5 What is secondary growth? Draw the labelled diagram of plant secondary growth. How would it become beneficial to plant life? Write down difference between normal and abnormal secondary growth in plants. (20)
- Q.No.6 Write down the salient features of modern trend in plant taxonomy. How can these trends change the mindset of the scientist in this era? (20)
- Q.No.7 Write down the evolutionary tendencies of Pteridophytes and describe the beneficial aspects of these tendencies in the life history of plants. (20)
- Q.No.8 Draw and label the detailed structure of the followings: (20)
- i. Monocot root.
 - ii. Dicot root.
 - iii. Monocot leaf.
 - iv. Dicot leaf.

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ZOOLOGY (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions in all selecting three questions from Part A and two questions from Part B. Draw neat and well-labeled diagrams where required.

PART-A

- Q.No.1 Describe the processes of conjugation and autogamy in Protozoa. How do these processes contribute to genetic variability? (20)
- Q.No.2 Explain in detail the canal system in Porifera and describe its significance in feeding and respiration. (20)
- Q.No.3 Discuss the medical importance of Nematodes with reference to diseases caused by Ascaris, Wuchereria, and Enterobius. (20)
- Q.No.4 Describe the structure and function of the water vascular system in Echinodermata. (20)

PART-B

- Q.No.5 Describe the biting mechanism of snakes, explaining the structural modifications of the skull, teeth, and venom apparatus. (20)
- Q.No.6 Compare the structure and function of the skeletal systems in different classes of Chordates. Use diagrams where appropriate to illustrate the differences. (20)
- Q.No.7 Describe the natural history and adaptations of various classes of Chordates. Discuss how these adaptations are related to their mode of life and ecological niches. (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

PHYSICS (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five complete questions.

- Q.No.1 (a) Write down Maxwell's equations in differential form and briefly explain the physical significance of each equation. Explicitly show that the electric and magnetic fields can be expressed in terms of the scalar potential ϕ and vector potential $\mathbf{A}$. (04)
- (b) Using Maxwell's equations, explicitly show that scalar and vector potentials satisfy the wave equation under Lorentz gauge condition:
 $\nabla \cdot \mathbf{A} + \mu_0 \epsilon_0 \frac{\partial \phi}{\partial t} = 0$ (10)
- (c) Derive the modified (Maxwell) form of Ampere's law in differential form. (06)
- Q.No.2 (a) State the Biot-Savart law. Derive the mathematical expression for the magnetic field $\mathbf{B}$ produced by a small current element $2i \, ds$ at a point P located a distance r away and explain the direction of field using the right-hand rule. (06)
- (b) Using the Biot-Savart law, derive an expression for the magnetic field $\mathbf{B}$ at a point P located on the central perpendicular axis of a circular current-carrying loop of radius R . (10)
- (c) State the principle of conservation of electric charge and derive the equation of continuity in its differential form. (04)
- Q.No.3 (a) For a series RLC circuit, derive the expressions for resonance frequency, current in the circuit and voltage across the inductor & capacitor at resonance. (10)
- (b) An AM radio receiver is tuned to a station broadcasting at a carrier frequency of 1 MHz. The receiver uses a super heterodyne system with an intermediate frequency (IF) of 455 kHz. Calculate the frequency of the local oscillator when it is tuned for high-side injection. If the tuning circuit uses an inductor of $10 \, \mu\text{H}$, find the required capacitance to tune the desired station at 1 MHz. (05)
- (c) In a common emitter transistor circuit, the base current (I_B) is $50 \, \mu\text{A}$, and the collector current (I_C) is 5 mA . Calculate the current gain (β) of the transistor. If the collector supply voltage is $V_{CC} = 10 \text{ V}$ and the collector resistor $R_C = 2 \text{ k}\Omega$, calculate the collector-emitter voltage (V_{CE}). (05)
- Q.No.4 (a) Explain the construction and working of a pentode vacuum tube. Describe its static and dynamic characteristics. (10)
- (b) Explain the Common Base (CB) configuration of a transistor with a neat circuit diagram. Discuss its input and output characteristics, derive the relation between I_E , I_C , and I_B , and define the current gain (α). (07)
- (c) A silicon diode ($V_\gamma = 0.7 \text{ V}$) is connected in series with a resistor $R = 1 \text{ k}\Omega$ to a DC supply of $V_s = 10 \text{ V}$. Calculate the current flowing through the diode. Determine the power dissipated by the diode. Assume the diode is ideal except for its forward voltage drop $V_\gamma = 0.7 \text{ V}$. (03)

- Q.No.5 (a) State the phenomenon of Compton scattering. Derive an expression for the change in wavelength (Compton shift) of a photon scattered through an angle θ by a free stationary electron. (10)
- (b) Monochromatic light of wavelength $\lambda = 400.0 \text{ nm}$ is incident on a metal whose work function is $\phi = 2.20 \text{ eV}$. Calculate the photon energy E_{photon} (in J and eV) and the maximum speed v_{max} of the emitted electrons (in m/s). (05)
- (c) State De Broglie's hypothesis and derive the mathematical expression for the De Broglie wavelength associated with a moving particle. Explain the physical significance of this hypothesis. (05)
- Q.No.6 (a) Use Schrodinger wave equation and derive the ground state eigenfunction for one dimensional harmonic oscillator. (10)
- (b) State the Heisenberg's uncertainty principle. If the position of an electron is $\Delta x = 1.0 \times 10^{-10} \text{ m}$ (atomic scale), then what would be the minimum uncertainty in its momentum? (03)
- (c) (c) State and explain Bohr's theory of the hydrogen atom. Derive the expressions for the radius and energy of an electron in the n^{th} orbit. (07)
- Q.No.7 (a) (a) What is beta decay and write its general form. Explain the types of beta decay with examples. Moreover, describe the role of neutrinos, the energy released (Q-value), and the conservation laws involved. (10)
- (b) (b) Explain the working of a mass spectrometer. Derive the expressions for the velocity of an ion, the radius of curvature of the ion's path in a uniform magnetic field B and the formula for the mass-to-charge ratio. (05)
- (c) (c) In a nuclear reactor, 1 gram of Uranium-235 undergoes fission. If each fission releases 200 MeV, calculate power generated if all fission occurs in 10 minutes. (05)
- Q.No.8 (a) Explain the radioactive decay law and derive the half-life of a nucleus. (04)
- (b) Write down the general nuclear reaction equation of alpha decay. Derive the expressions of the kinetic energy of the alpha particle in terms of Q-value and recoil energy of the daughter particle. (06)
- (c) Write down all the fundamental leptons, antileptons, quarks, antiquarks and gauge bosons, and also specify the electric charge of each particle type. (10)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

GEOLOGY (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- | | | |
|--------|--|------|
| Q.No.1 | Explain the major geological processes involved in formation of mineral deposits. Critically evaluate the metallogenic provinces of Pakistan with reference to their tectonic evolution and economic potential. | (20) |
| Q.No.2 | Discuss the constitution and classification of coal based on rank and grade. Analyze the geological framework of Pakistan's coal bearing formations and assess the energy significance of major coalfields. | (20) |
| Q.No.3 | Describe the geological control on groundwater occurrence and movement. Evaluate the different types of aquifers and their relevance to groundwater management in arid and semi-arid regions. | (20) |
| Q.No.4 | Explain the principles and techniques of geological mapping. Critically evaluate traditional prospecting methods and their continued relevance in modern mineral exploration. | (20) |
| Q.No.5 | Compare the geological, technical, and environmental considerations involved in open-pit mining versus subsurface excavations. Under what conditions is each method preferred? | (20) |
| Q.No.6 | Discuss the origin, geochemical behavior, and geological occurrence of radioactive minerals. What factors influence their concentration and how are they explored and evaluated? | (20) |
| Q.No.7 | Analyze the principles of photogeology and remote sensing in mineral exploration. How do modern satellite-based techniques enhance the accuracy and efficiency of geological investigations? | (20) |
| Q.No.8 | Explain the geological principles underlying the formation of geothermal energy. Discuss the methods of geothermal energy recovery and critically evaluate its current and potential uses in the context of global energy transitions. | (20) |

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

GEOGRAPHY (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- | | | |
|--------|--|------|
| Q.No.1 | Explain the concept of bridging the 'green' and 'brown' agendas in sustainable urbanization. Evaluate how integrated environmental and infrastructural planning can address the challenges of rapid urban growth in developing countries. | (20) |
| Q.No.2 | Discuss the physical, technological and socio-economic factors that influence agricultural patterns around the world. Assess the significance of mixed farming as an adaptive agricultural system in modern economies. | (20) |
| Q.No.3 | Analyze the major threats posed by overpopulation at global and national scales. Critically examine the demographic pressures facing Pakistan and their implications for economic development, resource management, and social stability. | (20) |
| Q.No.4 | Describe the global spatial distribution of tropical savanna forests. Evaluate their economic significance and discuss the environmental challenges associated with resource extraction in these regions. | (20) |
| Q.No.5 | Explain the geography of development and critically assess the factors responsible for regional disparities between developed and underdeveloped countries. How do these disparities influence global economic and political relations? | (20) |
| Q.No.6 | Evaluate the assertion that Pakistan is fundamentally an agro-based economy. Discuss the structural characteristics, strengths, weaknesses, and transformation potential of Pakistan's agricultural sector. | (20) |
| Q.No.7 | Discuss the spatial distribution, raw material base, and locational factors of chemical industries in Pakistan. Evaluate their role in national economic development and identify the major constraints hindering their expansion. | (20) |
| Q.No.8 | Explain the major economic indicators used to assess national development. Critically analyze Pakistan's performance in terms of GDP growth, employment, inflation, trade balance, and human development, highlighting the geographic factors that shape these outcomes. | (20) |

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

CHEMISTRY (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 Discuss Molecular Orbital Theory (MOT), explaining the concepts of bonding, non-bonding, and anti-bonding molecular orbitals. Use MOT to compare the bond order, stability, and magnetic behavior of O_2^{+2} , N_2 and F_2 . (20)
- Q.No.2 Define rate law, and derive the integrated rate equations for second-order reactions with same and different concentrations of reactants with suitable examples. (20)
- Q.No.3 Differentiate between physical adsorption and chemisorption. Explain Langmuir adsorption isotherm and Freundlich isotherm. (20)
- Q.No.4 Define conformational isomerism and its types. Explain conformational analysis of ethane, n-butane, cyclohexane and discuss how conformation affects their stability and reactivity. (20)
- Q.No.5 Classify organic halogen compounds. Differentiate between SN_1 and SN_2 reactions and discuss the role of nucleophile, electrophile, leaving group, substrate and solvent polarity. (20)
- Q.No.6 Compare and contrast the Cannizzaro reaction and aldol condensation in terms of reaction conditions, mechanism, and products formed. (20)
- Q.No.7 Discuss the structure of benzene with reference to Kekule structure, resonance concept, and molecular orbital theory. Explain how resonance energy accounts for benzene's unusual stability and lack of addition reactions. (20)
- Q.No.8 Discuss synthetic applications of the diazonium salts in the preparation of aromatic compounds through Sandmeyer and Gattermann reactions with mechanism. (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

BOTANY (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 How the essential mineral elements become fruitful for plants? Elaborate your answer through 'uptake & distribution' phenomena with reference to essential mineral elements of plants. (20)
- Q.No.2 Define Ecology and Ecologist. Write down the features of climatic influences on the growth of plants. Discuss the positive and negative impacts of climatic changes on the entire life of plants. (20)
- Q.No.3 What are the several strategic techniques which are being implemented mostly all over the world to conserve natural resources of environment? Write down the different methods to conserve the environmental natural resources. (20)
- Q.No.4 How would you define sex-linked genes? What is the crucial role of these genes in sex-linked inheritance? Why most of sex-linked genes are located on 'X' chromosome? (20)
- Q.No.5 What is adaptive mutation? Would it be good or bad for environment? How can you correlate adaptive mutation to study the evolutionary changes in environment? (20)
- Q.No.6 Differentiate between genes and genetic code. How can genetic code construct and work in the life of an organism? Write down various types of genetic codes with suitable example and the functional importance of genetic code. (20)
- Q.No.7 Why Neo-Darwinism is most acceptable than Darwinism? How Neo-Darwinism is building upon a modern insight and evidence? Briefly explain your supporting ideas with daily life examples. (20)
- Q.No.8 Draw the ring structures of the following carbohydrates: (20)
- i. Glucose + Glucose = Maltose
 - ii. Galactose + Glucose = Lactose
 - iii. Glucose + Fructose = Sucrose
 - iv. Starch

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ZOOLOGY (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions in all selecting ONE question from each part.
Draw neat and well-labeled diagrams where required.

PART-A

- Q.No.1 Discuss the process of protein synthesis in detail, highlighting the roles of DNA, mRNA, tRNA, and ribosomes. (20)
- Q.No.2 Describe the mechanism and significance of mitosis and meiosis, emphasizing their differences and importance in heredity and variation. (20)

PART-B

- Q.No.3 Describe the mechanism of respiration and explain how Oxygen and carbon dioxide are transported in the body. (20)
- Q.No.4 Describe the processes of digestion and assimilation of carbohydrates, proteins, and fats, and explain different modes of nutrition in animals. (20)

PART-C

- Q.No.5 Explain Mendel's laws of inheritance and their experimental verification using *Pisum sativum*. (20)
- Q.No.6 Describe sex determination and sex-linked inheritance with suitable examples. (20)

PART-D

- Q.No.7 Discuss the origin of life with reference to the Oparin-Haldane theory and Miller-Urey experiment. (20)
- Q.No.8 Explain the theories of organic evolution, comparing Lamarckism, Darwinism, and Neo-Darwinism. (20)

PART-E

- Q.No.9 Discuss the adaptations of animals to major habitats (aquatic, terrestrial, and aerial). (20)
- Q.No.10 Explain environmental pollution, its types, causes, and effects on living organisms. (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

PHILOSOPHY (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 Define an argument and distinguish it from other forms of discourse. (20)
Analyze the structure of arguments and evaluate the criteria for judging the strength and soundness of an argument.
- Q.No.2 Explain the nature and structure of a categorical syllogism. Discuss the rules (20)
of a valid syllogism and critically examine the common errors that lead to syllogistic fallacies.
- Q.No.3 Discuss the concept of vagueness, ambiguity, and emotive language in (20)
logical discourse. How do these linguistic features affect clarity, precision, and rational argumentation?
- Q.No.4 Define fallacy and classify the major types of logical fallacies. Evaluate their (20)
impact on reasoning and illustrate how fallacies function in everyday communication and public argument.
- Q.No.5 Explain Mill's methods of Experimental Inquiry and critically assess their (20)
effectiveness in establishing causal relationships. To what extent do these methods contribute to scientific investigation?
- Q.No.6 Discuss Ibn-e-Taimiyah's major criticisms of Aristotelian logic. How does (20)
his critique challenge the foundations of syllogistic reasoning and the epistemological assumptions underlying Greek logic?
- Q.No.7 Define scientific explanation and differentiate it from unscientific forms of (20)
explanation. Evaluate the criteria that make an explanation scientific, with reference to the role of laws, causality, and empirical verification.
- Q.No.8 Explain the concepts of validity and truth in logic. Analyze their relationship (20)
and show why a valid argument may not be true, and a true conclusion may arise from an invalid argument.

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

PSYCHOLOGY INCLUDING EXPERIMENTAL PSYCHOLOGY
(PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 Explain why Psychology is regarded as a science of behaviour. Discuss the scientific methods used in psychological research and evaluate their effectiveness in studying observable and non-observable aspects of human behaviour. (20)
- Q.No.2 Discuss the major types of personality tests, including objective and projective measures. Critically evaluate their reliability, validity, and usefulness in clinical, educational, and organizational settings. (20)
- Q.No.3 Differentiate between motivated and stimulated behaviour. Analyze Maslow's Hierarchy of Needs as a comprehensive framework for understanding human motivation, and as major criticisms of his theory. (20)
- Q.No.4 Describe the structure and functioning of the endocrine system. How do hormones influence behaviour, emotional responses, and psychological disorders? (20)
- Q.No.5 Explain the nature of learning and evaluate the role of reinforcement in shaping behaviour. Compare positive reinforcement, negative reinforcement, and punishment with suitable psychological examples. (20)
- Q.No.6 Define perception and discuss the factors that influence perceptual processes. How do sensory input, attention, context, and past experience contribute to perceptual organization? (20)
- Q.No.7 Examine the structure and functions of groups. Analyze factors influencing intergroup relations, including prejudice, competition, cooperation, and social identity. (20)
- Q.No.8 Discuss the nature, components, and formation of attitudes change and opinions. Evaluate the psychological processes involved in attitude change and the role of persuasion in shaping public opinion. (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

PHILOSOPHY (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 Define philosophy and discuss its major branches. Critically evaluate how philosophical inquiry shapes human thought, culture, and scientific development. (20)
- Q.No.2 Explain the central theme of Existentialism. Discuss how existentialist thinkers interpret human freedom, responsibility, and the search for meaning in an absurd world. (20)
- Q.No.3 Explain the pragmatic theory of Truth and discuss its major proponents. Evaluate the strengths and critiques of the pragmatic approach in determining what counts as true. (20)
- Q.No.4 Discuss the fundamental principles of Idealism. Compare the metaphysical and epistemological claims of major idealist philosophers and evaluate the strengths and limitations of idealist thought. (20)
- Q.No.5 Analyze the main doctrines of Ibn-e-Khaldun's philosophy, with reference to his concept of 'Asabiyyah' and theory of social change. How does his approach anticipate modern sociology? (20)
- Q.No.6 Explain the central theme of Asharite philosophy. Discuss how Asharism reconciles divine omnipotence with human action and its influence on Islamic theological thought. (20)
- Q.No.7 Examine Allama Iqbal's concept of Ijtihad as the principle of Movement in the structure of Islam. How does Iqbal reinterpret Islamic jurisprudence to respond to the challenges of modernity? (20)
- Q.No.8 Critically evaluate Sir Syed Ahmad Khan's rationalist approach to religion and education. How does his reinterpretation of Islamic thought contribute to intellectual reform in the subcontinent? (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

PSYCHOLOGY INCLUDING EXPERIMENTAL PSYCHOLOGY
(PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- | | | |
|--------|--|------|
| Q.No.1 | Define developmental psychology and discuss the major approaches used in the study of children, including psychoanalytic, behavioral, cognitive, and socio-cultural perspectives. Evaluate the strengths and limitations of each approach. | (20) |
| Q.No.2 | Describe the major stages of prenatal development and the significant developmental tasks of infancy. Analyze the biological and environmental factors that lead to developmental irregularities during these stages. | (20) |
| Q.No.3 | Explain the major concepts used to define abnormal behaviour. Discuss the principles and challenges of clinical diagnosis, highlighting the role of classification systems such as DSM and ICD. | (20) |
| Q.No.4 | Discuss the theoretical foundations of Rational-Emotive Behaviour Therapy (REBT) and Cognitive Therapy. Compare their techniques and effectiveness in modifying dysfunctional thoughts and behaviors. | (20) |
| Q.No.5 | Define mental retardation and discuss its major types, causes, and diagnostic criteria. | (20) |
| Q.No.6 | Explain the concept of character disorders (personality disorders). Analyze their major types, underlying psychological mechanisms, and challenges associated with assessment and treatment. | (20) |
| Q.No.7 | Discuss the role of psychological factors in shaping the working environment. Evaluate how motivation, leadership, organizational culture, and job satisfaction influence employee performance and well being. | (20) |
| Q.No.8 | Describe the psychological, biological, and social factors contributing to drug addiction. Critically examine major treatment approaches and discuss the challenges of relapse prevention. | (20) |

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

PURE MATHEMATICS (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions in all. Select THREE from section A and TWO from section B.

SECTION-A

- Q.No.1 (a) Find the inverse of matrix $A = \begin{bmatrix} 1 & 1 & 2 \\ 2 & 4 & -3 \\ 3 & 6 & -5 \end{bmatrix}$ using Cayley Hamilton theorem. (10)
- (b) Solve the following system of non-linear equations for x, y and z by Gauss Jordan Method (10)
- $$\begin{aligned} x^2 + y^2 + z^2 &= 6 \\ x^2 - y^2 + 2z^2 &= 2 \\ 2x^2 + y^2 - z^2 &= 3 \end{aligned}$$
- Q.No.2 (a) Examine whether the vector space of given polynomials in x are linearly dependent. (10)
- $p(x) = 1 + 2x + 3x^2$, $q(x) = 3 - x + 4x^2$, and $r(x) = 4 + x + 7x^2$
- (b) Find the Eigen values and corresponding Eigen vectors of matrix $A = \begin{bmatrix} 2 & 1 & 1 \\ 1 & 2 & 1 \\ 0 & 0 & 1 \end{bmatrix}$ (10)
- Q.No.3 (a) Show that the transformation $T : \mathbb{R}^3 \rightarrow \mathbb{R}^3$ define as $T(x_1, x_2, x_3) = (x_1 + 2x_2, -x_1 + x_3, 3x_2)$ is linear. Also find the Transformation matrix. (10)
- (b) Find an isomorphism between the vector spaces $\text{span}\{1, \sin x, \cos x\}$ and $\mathbb{R}^3$. (10)
- Q.No.4 (a) Let $C_{12} = \{1, b, b^2, b^3, \dots, b^{11} : b^{12} = 1\}$ be a cyclic group of order 12 generated by b . (10)
- Find all the generators C_{12} of other than b .
- (b) Find all $k \in \mathbb{Z}_3$ such that $\mathbb{Z}_3[x]/(x^3 + kx^2 + 1)$ is a field. (10)

SECTION-B

- Q.No.5 (a) Find the spherical coordinates equation for the sphere $x^2 + y^2 + (z - 1)^2 = 1$ (10)
- (b) Determine whether the given lines are parallel, intersect or are skew. If they intersect, find their point of intersection. (10)
- $L_1 : x = 2 + t, y = 2 + 3t, z = 3 + t$
 $L_2 : x = 2 + t, y = 3 + 4t, z = 4 + 2t$
- Q.No.6 (a) Find parametric equations for the line in which the planes $3x - 6y - 2z = 15$ and $2x + y - 2z = 5$ intersect. Find also the angle between the planes. (10)
- (b) Find the equation of the sphere passes through the points $(5, 3, 0)$ and $(-1, 4, 1)$ and its centre lies on the line $x = y = z$ (10)
- Q.No.7 (a) Find the total arc length of the cardioid $r = 1 + \cos \theta$ (10)
- (b) Find the area of the region that is inside of the cardioid $r = 4 + 4 \cos \theta$ and outside of the circle $r = 6$ (10)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

APPLIED MATHEMATICS (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions in all. Select **THREE** from section A and **TWO** from section B.

SECTION-A

- Q.No.1 (a) Find the rate of change of $\phi = xyz$ in the direction normal to the surface $x^2y + y^2x + yz^2 = 3$ at the point (1, 1, 1) (10)
- (b) If a vector field is given by $F = (x^2 - y^2 + x)i + (2xy - z)j$, is this field irrotational? If so, find its scalar potential. (10)
- Q.No.2 (a) Using Green Theorem, evaluate $\int_c (x^2y dx + x^2dy)$ where c is the boundary described counter clockwise of the triangle with vertices (0, 0), (1, 0) and (1, 1) (10)
- (b) If $u = x + y + z$, $v = x^2 + y^2 + z^2$ and $w = yz + zx + xy$, prove that grad u , grad v and grad w are coplanar vectors. (10)
- Q.No.3 (a) An 80 kg person is standing on a board inclined 20° horizontal. What is the gravitational component (i) normal to board (ii) parallel to board? (10)
- (b) A weight of 100 lb is suspended by a rope from a ceiling. A horizontal force pulls the weight until the rope makes an angle of 70° with the ceiling. Find the horizontal force H and the tension T in the rope. (10)
- Q.No.4 (a) Determine the centroid for the area bounded by the parabola $y^2 = 4ax$ and the lines $x = 0$, $y = b$ (10)
- (b) Four turns of a rope around a horizontal post will hold a 1000 lb weight with a pull of 10 lb. Determine the coefficient of friction between the rope and post. (10)

SECTION-B

- Q.No.5 (a) A 2kg mass falls 400cm. How much work was done on it by the gravitational force? How much potential energy did it lose? (10)
- (b) A projectile is shot upward from the earth with a speed of 20 m/s. How high is it when its speed is 8 m/s? (ignore air friction) (10)
- Q.No.6 (a) A 200 g mass vibrates horizontally without friction at the end of a horizontal spring for which $k = 7$ N/m. The mass is displaced 5 cm from equilibrium and released. Find (i) its maximum speed (ii) its speed when it is 3cm from equilibrium (iii) what is its acceleration in each of these cases? (10)
- (b) A uniform disc with $M = 2\text{kg}$ and $R = 0.5\text{m}$ is rotating about its centre with an angular velocity $\omega = 2$ rad/s. What is its rotational kinetic energy? (10)
- Q.No.7 (a) Compute the acceleration due to gravity at a place where a simple pendulum 150.3 cm long makes 100 cycles in 246.7 seconds. (10)
- (b) A sphere with mass $m_1 = 2\text{kg}$ and initial velocity $V_{1i} = 10\text{m/s}$ collide head -on a stationary sphere with mass $m_2 = 4\text{kg}$. The two spheres stick together after the collision. What is their final velocity? How much kinetic energy is lost in the collision? (10)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

STATISTICS

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions in all. All questions carry equal marks.

- Q.No.1 a) Write the application of statistics in daily life with examples? (07)
 b) Suppose 80 percent of the material received from vendor A is of exceptional quality, while only 50 percent of the material received from vendor B is of exceptional quality. However, the manufacturing capacity of vendor A is limited, and for this reason only 40 percent of the material purchased comes from vendor A. The other 60 percent comes from vendor B. An incoming shipment of material is inspected and it is found to be of exceptional quality. What is the probability that it came from vendor A? (07)
 c) The probability that a contractor will get a plumbing contract is $\frac{2}{3}$ and the probability that he will not get an electrical contract is $\frac{5}{9}$. If the probability of getting at least one contract is $\frac{4}{5}$, what is the probability that he will get both? (06)

- Q.No.2 a) The mean of a binomial distribution is 40 and standard deviation 6. Calculate n, p, and q? (06)
 b) Suppose a life insurance company insures the lives of 5000 persons aged 42. If studies show the probability that any 42 years old person will die in a given year to be 0.001, find the probability that the company will have to pay at least two claims during a given year? (07)
 c) A wholesale distributor of fertilizer products finds that the annual demand for one type of fertilizer is normally distributed with a mean of 120 tones and standard deviation of 16 tones. If he orders only once a year, what quantity should be ordered to ensure that there is only a 5 percent chance of running short? (07)

- Q.No.3 a) Every day, the number of network blackouts has a distribution (probability mass function) (10)

X	0	1	2
P(x)	0.7	0.2	0.1

A small internet trading company estimates that each network blackout results in a \$500 loss. Calculate expectation (average) and variance of this company's daily loss due to blackouts?

- b) There are 20 computers in a store. Among them, 15 are brand new and 5 are refurbished. Six computers are purchased for a student lab. From the first look, they are indistinguishable, so the six computers are selected at random. Find the probability that among the chosen computers, two are refurbished? (05)
 c) The following table lists the history of 940 orders for features in an entry-level computer product. (05)

		Extra Memory	
		No	Yes
Optical high Speed Processor	No	514	68
	Yes	112	246

Find the probability that an order requests an optional high-speed processor given that the order requests extra memory?

- Q.No.4 a) In a certain type of metal test specimen, the normal stress on a specimen is known to be functionally related to the shear resistance. The following is a set of coded experimental data on the two variables: (10)

Normal Stress 'x'	26.8	25.4	28.9	23.6	27.7	23.9	24.7	28.1	26.9	27.4
Shear Resistance 'y'	26.5	27.3	24.2	27.1	23.6	25.9	26.3	22.5	21.7	21.4

Calculate the Correlation between Normal Stress 'x' and shear Resistance 'Y'?

- b) A rocket motor is manufactured by bonding together two types of propellants, an igniter and a sustainer. The shear strength of the bond y is thought to be a linear function of the age of the propellant x when the motor is cast. Ten observations are shown in the table: (10)

Strength y (psi)	2159	1678.2	2316	2061	2208	1708	1785	2575	2358	2278
Age x (weeks)	15.5	23.75	8	17	5	19	24	2.5	7.5	11

- Estimate the least squares estimates of the slope and intercept in the simple linear regression model?
- Estimate the mean shear strength of a motor made from propellant that is 20 weeks old?

- Q.No.5 a) Differentiate between (10)
- Null hypothesis and Alternative Hypothesis
 - One tailed and two tailed tests
 - Statistics and Statistic.

- b) An experiment was performed to compare the abrasive wear of two different laminated materials. Twelve pieces of material 1 were tested by exposing each piece to a machine measuring wear. Ten pieces of material 2 were similarly tested. In each case, the depth of wear was observed. The samples of material 1 gave an average (coded) wear of 85 units with a sample standard deviation of 4, while the samples of material 2 gave an average of 81 with a sample standard deviation of 5. Can we conclude at the 0.05 level of significance that the abrasive wear of material 1 exceeds that of material 2 by more than 2 units? Assume the populations to be approximately normal with equal variances? (10)

- Q.No.6 a) Two levels (low and high) of insulin doses are given to two groups of diabetic rats to check the insulin binding capacity, yielding the following data: (10)

Low dose: $n_1 = 8$ $\bar{x}_1 = 1.98$ $s_1 = 0.51$

High dose: $n_2 = 13$ $\bar{x}_2 = 1.30$ $s_2 = 0.35$

Assume that the variances are equal. Give a 95% confidence interval for the difference in the true average?

- b) Test the hypothesis that the average content of containers of a particular lubricant is 10 liters if the contents of a random sample of 10 containers are 10.2, 9.7, 10.1, 10.3, 10.1, 9.8, 9.9, 10.4, 10.3, and 9.8 liters. Use a 0.01 level of significance and assume that the distribution of contents is normal? (10)

- Q.No.7 a) Six different machines are being considered for use in manufacturing rubber seals. The machines are being compared with respect to tensile strength of the product. A random sample of four seals from each machine is used to determine whether the mean tensile strength varies from machine to machine. The following are the tensile-strength measurements in kilograms per square centimeter $\times 10^{-1}$ (10)

Machines					
1	2	3	4	5	6
17.5	16.4	20.3	14.6	17.5	18.3
16.9	19.2	15.7	16.7	19.2	16.2
15.8	17.7	17.8	20.8	16.5	17.5
18.6	15.4	18.9	18.9	20.5	20.1

Perform the analysis of variance at the 0.05 level of significance and indicate whether or not the mean tensile strengths differ significantly for the six machines?

- b) Draw all possible sample of size 3 from the given population 6, 12, 3, 9, 15, and 21. Find sample mean and prove the following relationship, using usual notations (10)
- $E(\bar{x}) = \mu$
 - $V(\bar{x}) = \frac{\sigma^2}{n} \left(\frac{N-n}{N-1} \right)$

- Q.No.8 Write short note on any FOUR of the following:

- Analysis of Variance (ANOVA) and its assumption
- Multiple and Partial Correlation.
- Importance of Normal distribution
- Maximum likelihood estimation of the mean of a normal population.
- Comparison of Stratified and cluster Sampling schemes.
- Properties of a good estimator.

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

PURE MATHEMATICS (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions in all. Select THREE from section A and TWO from section B.

SECTION-A

- Q.No.1 (a) Evaluate (i) $\lim_{x \rightarrow 0} \frac{1 - \cos x}{x^2}$ (ii) $\lim_{x \rightarrow +\infty} \frac{x^{-4/3}}{\sin(\frac{1}{x})}$ (10)

- (b) Discuss the continuity of the function $f(x) = \begin{cases} 0, & x \leq 3 \\ \frac{x+3}{x^2-9}, & -3 < x < 3 \\ \frac{1}{x}, & x > 3 \end{cases}$ at $x = -3$ and $x = 3$ (10)

- Q.No.2 (a) Examine the function $f(x, y) = x^3 + 3x^2 + y^2 + 4xy$ for extreme values. (10)

- (b) Find the volume of the solid generated when the region between the graph of the equations $f(x) = 2 + x^2$ and $g(x) = x$ over the interval $[0, 2]$ is revolved about x-axis. (10)

- Q.No.3 (a) Find the asymptotes of the function $f(x) = \frac{x^2 - 5x + 6}{x - 2}$ and sketch the graph. (10)

- (b) Use Taylor's Series to evaluate the value of $\sin 85^\circ$. (10)

- Q.No.4 (a) Determine whether the following series converges or diverges. (10)

(i) $\sum_{n=1}^{\infty} \frac{3n-4}{n^3-2n+4}$ (ii) $\sum_{n=1}^{\infty} \frac{n}{2^n}$

- (b) Evaluate the following improper integrals. (10)

(i) $\int_0^1 \frac{1}{\sqrt{1-x}} dx$ (ii) $\int_0^{+\infty} \frac{\ln x}{x^2} dx$

SECTION-B

- Q.No.5 (a) Use De Moivre's Theorem to Simplify $\frac{(-1+i)^4(2+2\sqrt{3}i)^4}{(3-3i)^4}$ (10)

- (b) If $\sin(A+iB) = x + iy$, show that $\frac{x^2}{\sin^2 A} - \frac{y^2}{\cos^2 A} = 1$ (10)

- Q.No.6 (a) Find the values of a and b such that the function $f(z) = x^2 + ay^2 - 2xy + i(bx^2 - y^2 + 2xy)$ is analytic. (10)

- (b) Expand the function $f(x) = |x|$, $-1 \leq x \leq 1$ into Fourier Series. (10)

- Q.No.7 (a) Use Cauchy's integral formula to evaluate $\int_C \frac{z}{z^2-3z+2} dz$ where C is the circle $|z-2| = \frac{1}{2}$ (10)

- (b) Find the Laurent Series expansion of $f(z) = \frac{1}{(z-10)(z-2)}$ valid for $|z-1| > 1$ (10)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

APPLIED MATHEMATICS (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions in all. Select TWO from section A, ONE from section B and TWO from section C.

SECTION-A

- Q.No.1 (a) Form the ordinary / partial differential equations of the following relations by eliminating the arbitrary constants / functions. (10)
 (i) $y = e^x (A \cos 2x + B \sin 2x)$ (ii) $z = y f(x) + x g(y)$
 (b) Find the solution of the following second order non homogeneous differential equation. (10)
 $y'' + 6y' + 9y = 5e^{3x} + \sin 2x$
- Q.No.2 (a) Solve the following linear first order PDE's. (10)
 $X(z^2 - y^2)p + y(x^2 - z^2)q = z(y^2 - x^2)$
 (b) Solve the following linear homogeneous PDE with constant coefficient. (10)
 $\frac{\partial^3 z}{\partial x^3} - 2 \frac{\partial^3 z}{\partial x^2 \partial y} = 2e^{2x+y} + 3x^2y$
- Q.No.3 (a) Apply the method of separation of variable to find the solution of wave equation $\frac{\partial^2 y}{\partial t^2} = \frac{\partial^2 y}{\partial x^2}$ (10)
 (b) A tightly stretched string, with fixed end points $x = 0$ and $x = \pi$, is initially at rest in its equilibrium position. Find the displacement $y(x, t)$ at any point of the string at any time if it is set vibrating by giving to each of its points an initial velocity $\left(\frac{\partial y}{\partial t}\right)_{t=0} = 0.3 \sin x - 0.04 \sin 5x$ (10)

SECTION-B

- Q.No.4 (a) Show that every tensor can be expressed as the sum of two tensor, one is a symmetric and other skew-symmetric in a pair of covariant or contravariant indices. (10)
 (b) A covariant tensor has components $xy, 2y - z^2, xz$ in rectangular coordinate system. Find its covariant component in spherical coordinate. (10)
- Q.No.5 (a) Prove that (i) $[pq, r] = [qp, r]$ (ii) $\begin{Bmatrix} s \\ pq \end{Bmatrix} = \begin{Bmatrix} s \\ qp \end{Bmatrix}$ (10)
 (b) If $(ds)^2 = r^2 (d\theta)^2 + r^2 \sin^2 \theta (d\phi)^2$ Find the value of $[22, 1]$ and $[12, 1]$ (10)

SECTION-C

- Q.No.6 (a) Use Newton Raphson Method to find the roots of equation $3x - \cos x - 1 = 0$ (10)
 (b) Solve the following equation by Gauss Seidel Method accurate upto two decimal place. (10)
 $83x + 11y - 4z = 95$, $7x + 52y + 13z = 104$, $3x + 8y + 29z = 71$
- Q.No.7 (a) Apply Gauss-Jordan method to solve the following system of equations. (10)
 $x + y + z = 9$, $2x - 3y + 4z = 13$, $3x + 4y + 5z = 40$
 (b) The pressure p of a wind corresponding to velocity v is given by the following data. Estimate p by interpolation when $v = 25 \text{ m/s}$ (10)

v	10	20	30	40
p	11	2	4.4	7.9

- Q.No.8 (a) Evaluate $\int_0^b \frac{dx}{1+x^2}$ by using Trapezoidal rule. (10)
 (b) A factory owner purchased two types of machine A and B for his factory. The requirements and the limitation for the machine are as follows: (10)

Machine	Area occupied	Labour Force	Daily output (in units)
A	1000 m^2	12 men	60
B	1200 m^2	08 men	40

He has maximum area of 9000 m^2 available, and 72 skilled laborers who can operate both the machines. How many machines of each type should he buy to maximize the daily output?

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

COMPUTER SCIENCE

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five complete questions by choosing at least one question from each section. All questions carry equal marks.

Section – A

- Q.No.1 a) Explain the principles of Cache memory. Discuss the role and functioning of multi-level Cache hierarchies (L1, L2 and L3) in modern computer systems, highlighting their impact on processing speed and system performance. (10)
- b) Differentiate between CISC and RISC architectures. Evaluate their respective advantages, limitations, and current applications in processor design. (10)
- Q.No.2 a) Explain the concept and significance of system calls in operating systems. Discuss different categories of system calls with relevant examples, highlighting their role in use-kernel interaction. (10)
- b) Differentiate between swapping and paging as memory management techniques. Describe their working mechanisms and analyze their advantages and limitations in modern operating systems. (10)
- Q.No.3 a) Describe the major types of computer networks. Discuss their characteristics, advantages, and typical use cases. (10)
- b) Explain TCP/IP addressing techniques with reference to IPv4. Elaborate the major changes introduced in IPv6 and discuss how IPv6 overcomes the limitations of IPv4. (10)

Section – B

- Q.No.4 a) Explain the concept of function overloading. Discuss how it enhances programming efficiency and code reusability, with suitable examples. (10)
- b) Define enumeration in programming. Explain its purpose, advantages, and application with reference to data handling and code readability. (10)
- Q.No.5 a) Explain the concept of recursion. Discuss its advantages and write an example of solving a problem using and without using recursion for comparison. (10)
- b) Define a graph. Describe Breadth First Search (BFS) and Depth First Search (DFS) graph traversal algorithms, explaining their applications and operational differences. (10)
- Q.No.6 a) Differentiate between the Agile Software Development Method and traditional (waterfall or sequential) development models. Evaluate their advantages and limitations in modern software engineering. (10)
- b) Explain the importance of software testing. Differentiate between verification and validation, describing their roles in ensuring software quality. (10)

Section – C

- Q.No.7 a) Define a database transaction. Discuss the ACID properties and explain (10) their importance in ensuring data reliability and consistency.
- b) Explain the purpose of database normalization. Describe the (10) characteristics of First Normal Form, Second Normal Form, and third Normal Form with suitable examples.
- Q.No.8 a) Explain what is Web Link? Write the HTML scripts to solve the (10) following tasks:
- i) Making links to external pages.
 - ii) Making relative links to documents on your own server.
 - iii) Linking to a specific point in a page.
 - iv) Adding "mailto" and "tel" links.
 - v) Targeting new windows.
- b) Define forms and explain how forms work. Write HTML code to explain (10) the following concepts:
- i) The form element
 - ii) POST versus GET
 - iii) Variables and values
 - iv) Form controls
 - Text entry controls
 - Specialized text entry controls
 - v) Form accessibility features
 - Labels
 - Fieldset and legend
- Q.No.9 a) Explain the fundamental differences between 2D and 3D graphics in (10) terms of structure, coordinate systems, and data representation. Support your answer with suitable real-world examples.
- b) Discuss the Geometric Transformation Techniques used in computer (10) graphics such as translation, rotation, and scaling in both 2D and 3D environments. Illustrate your answer with diagrams or mathematical notations where appropriate.

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ACCOUNTANCY & AUDITING (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All carry equal marks.

Q.No.1 Anees Traders is the sole proprietor owned by Mr Anees Ali. Below are the financial details of the business as of April, 30,2024

- i. On April 01, 2024, Anees started business with Rs.100,000 and other transactions for the month are:
- ii. Purchase of Furniture for Cash Rs.7,000
- iii. Purchase of Goods for Cash Rs.2,000 and for Credit Rs.1,000 from Khalid Retail Store
- iv. Sold Goods to Khan Brothers Rs.12,000 and Cash Sales Rs.5,000
- v. Owner withdrew Rs.2,000 for personal use
- vi. Paid Khalid Retail Store Rs.500
- vii. Received Rs.10,000 from Khan Brothers
- viii. Paid Salaries Expenses Rs.8,000

Based on the above data:

- a) Prepare T-accounts for the above transactions. (10)
- b) Prepare the Trial Balance for Anees Traders as of April 30, 2024 using the information above. (10)

Q.No.2 Hamza Inc. is having transactions for the month of August 2024 as follow:

Aug: 01:	Hashim Khan, the owner, invested Rs.57,500 cash and Rs. 32,500 of photography equipment in the business
Aug: 04:	Paid Rs.3,000 cash for an insurance policy covering the next 24 months.
Aug: 07:	Services are performed, and clients are billed for Rs.10,000
Aug: 13:	Purchased office supplies for Rs.1,400. Cash paid Rs.400 and remaining outstanding
Aug: 20:	Received Rs.2,000 cash in photography fees earned previously
Aug: 24:	The client immediately pays Rs.15,000 for services to be performed later
Aug: 29:	The business acquires photography equipment. The purchase price is Rs.100,000, pays Rs.25,000 cash and signs a note for the balance
Aug: 29:	Hashim withdrew 5000 for personal use

Based on the above data:

- a) Prepare the journal entries for the above transactions. (10)
- b) Prepare a Balance Sheet as of August 30, 2024 (10)

Q.No.3 Asad Corporation, a merchandising company, is preparing its financial records for the year ended December 31, 2024. Below are the extracted balances from the general ledger:

Balances of the Items	Amount (in Rs.)
Cash	70,000
Accounts Receivable	200,000
Inventory (Beginning)	150,000
Purchases	500,000
Purchase Returns and Allowances	30,000
Sales Revenue	900,000

Sales Returns and Allowances	20,000
Office Supplies	10,000
Prepaid Insurance	24,000
Office Equipment	300,000
Accumulated Depreciation-Office Equipment	80,000
Accounts Payable	90,000
Salaries Payable	12,000
Bank Loan Payable (Non-current)	150,000
Salaries Expenses	100,000
Utilities Expense	45,000
Rent Expense	60,000
Depreciation Expense	30,000
Owner's Capital (January 1, 2024)	400,000
Owner's Drawings:	50,000

Additional Information for Adjustments

- Inventory at the end of the year in Rs.120,000.
- Office supplies used during the year are Rs.6,000.
- Insurance expired during the year amounts to Rs.8,000.
- Accrued salaries at year-end-are Rs.15,000.
- Depreciation on office equipment is recorded using the straight-line method over 10 years (no residual value).

Based on the above:

- Prepare an unadjusted Trial Balance as of December 31, 2024. (10)
- Incorporate the adjustments and prepare the adjusted Trial Balance. (10)

Q.No.4 Ayesha, Imran and Hassan formed a partnership business on January 1, 2024 under the name AIH Traders. The partners agreed to share profits and losses in the ratio 3:2:1 respectively. The following balances were provided at the end of the first year, December, 31, 2024:

Particulars	Amount in Rs.
Ayesha's Capital (Jan 1, 2024)	200,000
Imran's Capital (Jan 1, 2024)	150,000
Hassan's Capital (Jan 1, 2024)	100,000
Ayesha's Drawings	30,000
Imran's Drawings	20,000
Hassan's Drawings	10,000
Net Income for the year	120,000

Based on the above data:

- Distribute the Net Income of Rs.120,000 among the partners based on their agreed profit-sharing ratio of 3:2:1. (10)
- Calculate the adjusted capital balances for each partner after having profits and drawing. (10)

Q.No.5 ABC Traders is a medium-sized retail company. At the end of 2024, its financial statements show the following figures:

- Current Assets = 800,000
- Current Liabilities = Rs.500,000
- Inventory = Rs.200,000
- Net Sales (Revenue) = Rs.2,400,000
- Net Income = Rs.300,000
- Total Assets = Rs.1,500,000
- Shareholders' Equity = Rs.900,000

Calculate and interpret the following financial ratio to know the financial position of the company. Give your opinion on the results.

- Liquidity ratios (7)
- Return on Assets and Equity Ratios (7)
- Net profit margin Ratio. (6)

Q.No.6 Bright Star Enterprises maintains a Cash Book for bank transactions. On 31st July, 2024, the balance as per the Cash Book was Rs.50,000(Dr) while the Bank Statement showed a balance of Rs.46,500 (Cr). Upon comparison, the following differences were found:

- i. Cheques of Rs. 12,000 deposited on 30th July were not yet credited by the bank.
- ii. Cheques issued worth Rs.8,500 have not yet been presented for payment.
- iii. The bank credited Rs.1,200 as interest, which was not recorded in the Cash Book.
- iv. A cheque from a customer worth Rs.5,000 deposited earlier was returned by the bank for insufficient funds (NSF).
- v. The bank deducted Rs.200 as service charges, which were not recorded in the Cash Book.

Based on the above data:

1. Prepare a Bank Reconciliation Statement as on 31st July, 2024. (10)
2. Give explanation (reasons) of each adjustment made. (10)

Q.No.7 Moonlight Traders is a sole proprietorship. The following balances were extracted from its books on 31st December, 2024:

- i. Capital = Rs.150,000
- ii. Drawings = Rs. 20,000
- iii. Cash in hand = Rs.5,000
- iv. Bank Balance = Rs.50,000
- v. Accounts Receivable = Rs.40,000
- vi. Accounts Payable = Rs.30,000
- vii. Inventory (1st Jan 2024) = Rs.35,000
- viii. Purchases = Rs. 180,000
- ix. Sales Revenue = Rs.300,000
- x. Wages and Salaries = Rs.50,000
- xi. Rent Expense = Rs.24,000
- xii. Utilities Expense = Rs.6,000
- xiii. Furniture and Fixtures = Rs.60,000
- xiv. Equipment = Rs.80,000
- xv. Loan Payable (long-term) = Rs.70,000

Adjustments at year end:

- i. Closing Inventory valued at Rs.45,000
- ii. Depreciation: Furniture at 10% and Equipment at 12.5%.
- iii. Accrued Salaries = Rs.5,000
- iv. Prepaid Rent = Rs.4,000
- v. Interest on loan (not yet paid) = Rs.7,000

Using the above:

- a. Prepare the Income Statement for the year ended 31st Dec 2024. (10)
- b. Prepare the Balance Sheet as on 31st December, 2024. (10)

Q.No.8 Integrated Waste Management purchased new equipment on January 3, 2020 at a cost of \$240,000. The equipment had an estimated useful life of 8-years with an estimated residual value of \$24,000. (20)

Compute the annual depreciation expense (one full year) throughout 8-years life of equipment under the following methods of depreciation:

- a. Straight-line method.
- b. Sum-of-the years-digits.
- c. Double-declining-balance.
- d. MACRS accelerated rates for 8-years

Note: Round off depreciation for fractional periods.

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ECONOMICS (PAPER-I)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions selecting at least two from each part.

PART – A

- Q.No.1 Define Marginal Rate of Substitution (MRS_{12})? Show that at equilibrium of Indifference curve approach, the MRS is equal to the negative of the ratio of prices of both commodities? (20)
- Q.No.2 Using AD and AS approach, show how market equilibrium can be derived? Explain how the AD-AS model of Keynesians is different from that of Classical? What factors affect this equilibrium? Elaborate? (20)
- Q.No.3 Define and explain the following terms: (20)
- i. Marginal rate of technical substitution ($MRTS_{LK}$)
 - ii. Iso-cost and Iso-quant curves and their equilibrium
- Q.No.4 Explain how inflation is measured? What effects inflation? How does inflation affect an economy? (20)

PART – B

- Q.No.5 What is import substitution and export promotion? Elaborate the importance of trade for the economic development of any country? (20)
- Q.No.6 Define Protectionism? What are the methods of protectionism? What are the arguments against and in favour of the protectionism? (20)
- Q.No.7 Explain how monetary policy is conducted under the rules and under the central bank discretion? What are the tools of monetary policy? (20)
- Q.No.8 Define the term fiscal deficit? How the fiscal deficit of a government is financed? Which of the methods of deficit financing is least inflationary? (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

BUSINESS ADMINISTRATION

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt five questions in all by selecting at least ONE question from each part.

Part – I (Management)

- Q.No.1 Explain the nature and scope of management. Discuss how different schools of thought have contributed to the evolution of modern management practices. (20)
- Q.No.2 Describe the planning process and explain how planning tools can be used effectively in today's dynamic business environment. Also discuss the role of change management. (20)
- Q.No.3 Explain the major types of organizational structures and critically examine classical and modern theories of organization in the context of group dynamics and staffing. (20)

Part – II (Marketing)

- Q.No.4 Analyze the role of marketing in society and within an organization. How does marketing influence business strategy and consumer welfare? (20)
- Q.No.5 Evaluate the components of the marketing mix. Discuss how distribution channels, retailing, and promotional activities contribute to effective marketing. (20)

Part – III (Financial Management)

- Q.No.6 From the comparative financial data provided by A.I.S. Corporation Ltd., prepare statement of variation in financial position for the year 2024 using Cash and Net working capital basis. (20)

	2023	2024
Cash	\$20,600	\$35,000
Accounts Receivables	42,000	30,000
Inventory	80,000	75,000
Prepaid Expenses	2600	2,000
Fixed Assets	190,000	160,000
Accumulated Depreciation	115,000	100,000
Accounts Payables	24,200	12,000
Interest payables	3,400	2,000
Long Term Debts	70,000	50,000
Capital	120,000	120,000
Retained Earnings	2,600	18,000

- Q.No.7 Based on data provided in Q.No.6, compute and analyze the Trend and Common Size percentage? (20)
- Q.No.8 Prepare the statement of accounting for variation in gross margin for 2024 from the following information: (20)

	2023	2024
Net Sales	\$50,000	\$60,000
Cost of Goods Sold	42,000	44,000
Gross Margin	8,000	16,000
Units sold	1,000	1,300

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ACCOUNTANCY & AUDITING (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All carry equal marks.

- Q.No.1 a) Discuss the fundamental principles of auditing as per International Standards on Auditing (ISA). (20)
b) How do these principles guide the auditor in forming an opinion?

- Q.No.2 Mr Salman Khan is 62 years of age. He is currently employed as Chief Operating Officer (COO) in a private bank. His particulars for the year ended 30th June, 2024 are as follows: (20)
i. Basic Salary: Rs.45,000 per month
ii. Medical Allowance: Rs.12,000 per month
iii. Conveyance Allowance: Rs.8,000 per month
iv. Bonus (annual) Rs.60,000

Based on the above data:

Compute his tax liability for the year given the following tax rates:

- a) Upto Rs.400,000 – Exempted
b) Rs.400,000 to Rs.500,00 – 2% of the amount exceeding Rs.400,000
c) Rs.500,001 to Rs.750,000 –Rs.2,000 + 5% of the amount exceeding Rs.500,000.

~~By Per Hour Cost of the Product~~

- Q.No.3 Laam Manufacturing produces custom furniture. Below are the details for the month of November, 2024:

Accounting Activities/ Items	Amount in Rs.
Beginning Balances	
Raw Materials Inventory (Nov 1, 2024)	120,000
Work-in-Process (WIP) Inventory (Nov 1, 2024)	80,000
Finished Goods Inventory (Nov 1, 2024)	150,000
Transactions During November:	
Raw materials purchased during November (paid in cash)	350,000
Direct materials issued to production:	280,000
Indirect materials issued:	50,000
Total direct labour incurred: 80% paid in cash, 20% accrued	200,000
Total indirect labour incurred (paid in cash)	60,000
Total factory overhead incurred including:	250,000
• Depreciation on machinery: Rs.70,000	
• Utilities: Rs. 50,000	
• Other factory expenses: Rs.130,000	
Manufacturing overhead applied to production at 120% of direct labour cost	
Ending Balances	
Raw Materials Inventory (Nov 30, 2024):	140,000
Work-in-Process (WIP) Inventory (Nov 30,2024)	100,000
Finished Goods Inventory (Nov 30,2024)	180,000
Sales	650,000
Total finished goods transferred to cost of Goods Sold:	
Total sales for November (80% received in cash, 20% on account)	800,000

Based on the above data:

- a) Prepare the Raw Materials Inventory T-account, including purchases, usage, and ending balance. (10)
b) Calculate the total manufacturing costs added to production during November. (10)
- Q.No.4 Using the data from the Question No.3, calculate the following:
i. Prepare a Cost of Goods Manufactured Statement. (10)
ii. Prepare a Cost of Goods Sold Statement. (10)

- Q.No.5 a) Discuss in detail the characteristics of a Joint Stock Corporation. (10)
b) How joint stock corporations differ from partnership and sole proprietorship. (10)
- Q.No.6 a) Discuss in detail the principles and types of financing in Business.
b) Briefly explain role of financial institutions in financing.
- Q.No.7 XYZ Furniture Ltd. manufactures wooden chairs. The following standard costs were established for producing one chair:

Cost Component	Standard Rate	Standard Quantity Per Chair
Direct Materials	Rs.500 per unit	2 units
Director Labour	Rs.300 per hour	4 hours
Factory Overhead	Rs.100 per direct labour hour	Applied at a rate of 50% of direct labour cost

During November, 2024, the company produced 1,000 chairs, and the following actual data was recorded:

- i. **Materials:**
 - a. 2,100 units of direct materials were purchased and used.
 - b. Total cost of materials: Rs.1,120,000
- ii. **Labour:**
 - a. 3,800 hours of direct labour were worked.
 - b. Total labour cost: Rs.1,160,000.
- iii. **Factory Overhead:**
 - a. Actual overhead incurred: Rs.200,000.
 - b. Overhead applied at the standard rate based on actual direct labour hours.

Calculate and interpret the results of:

- i. The Material Price Variance and the Material Quantity Variance. (7)
- ii. The Labour Rate Variance and the Labour Efficiency Variance. (7)
- iii. The Overhead Spending Variance and the Overhead Efficiency Variance. (6)

- Q.No.8 Maphrica Enterprises presents before you the following information for the month of May, 2024: (20)

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Raw Material (1 May, 2024)	?	Labour Cost	55,000
WIP (1 May, 2024)	35,000	Indirect Material	12,000
Finished Goods (1 May, 2024)	55,000	Indirect Labour	15,000
Purchases (Raw Material)	305,000	Depreciation on Factory Assets	35,000
Purchase Return	5,000	Tools & Jig used	22,000
Transport-in	10,000	Other Factory Expenses	18,000
Power, Heat and Light	4,000	Raw Material (31 May, 2024)	25,000
Other Direct Expenses	14,000	WIP (31 May, 2024)	25,000
Miscellaneous OH	27,000	Finished Goods (31 May, 2024)	75,000

Using the above data:

- a. Prepare Cost of Goods Sold Statement for the given month in order to determine the Cost of Opening Raw Material, if the Cost of Goods Manufactured is Rs.620,000?.
- b. Assume that 5,000 units were produced during the year, then, what would be the Per Unit Cost?
- c. Determine Gross Profit/ Loss assuming that Sales Revenue is Rs.1,700,000?
- d. Determine Operating Profit/ Loss assuming that Operating Expenses are Rs.350,000?

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

ECONOMICS (PAPER-II)

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 Explain the concept of trade elasticities. Does currency depreciation necessarily result in positive exports and negative imports in Pakistan? (20)
- Q.No.2 Is Pakistan an investment friendly country and what are the basis for inviting Foreign Direct Investment (FDI)? Explain and critically evaluate the pattern of FDI in Pakistan. (20)
- Q.No.3 "Economic growth is a short run phenomenon while economic development is a long term process". Elaborate the statement. (20)
- Q.No.4 Critically evaluate the process of privatization in Pakistan for the development of the economy. Make a comparative analysis of privatization and nationalization. (20)
- Q.No.5 How can you relate income inequality with poverty? What policy measures can be taken to reduce poverty and income inequality in Pakistan? (20)
- Q.No.6 What is Balance of Payment (BoP). What are its major accounts? What measures are to be taken to improve the Balance of Payment deficit of Pakistan? (20)
- Q.No.7 Define electricity tariff design and briefly explain the electricity tariff categories in Pakistan. Give an insight on the Pakistan's electricity tariff structure and power sector challenges. (20)
- Q.No.8 Define the Green Revolution and critically analyze its impact on Pakistan's economic development. Discuss how agricultural modernization influenced productivity, rural livelihood, and industrial growth while also highlighting its social and environmental challenges. (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

PUBLIC ADMINISTRATION

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 Public administration is the backbone of a welfare state, but in Pakistan it has often failed to deliver welfare. Critically analyze this contradiction. (20)
- Q.No.2 Evaluate the strengths and weaknesses of Scientific Management, Human Relations, and System Theory in addressing Pakistan's governance crisis. Which theory is most relevant for reforms and why? (20)
- Q.No.3 Weberian bureaucracy emphasizes neutrality and rationality, but Pakistan's bureaucracy is often politicized and inefficient. Critically examine whether Weber's model can realistically function in Pakistan's administrative culture. (20)
- Q.No.4 Leadership in public administration is often the difference between reforms and stagnation. Critically assess whether Pakistan's bureaucratic leadership is transformational or status quo-oriented. (20)
- Q.No.5 Accountability in Pakistan's public administration is fragmented across judicial, legislative, and ombudsman mechanisms. Critically evaluate why these mechanisms have failed to curb corruption and misuse of power. (20)
- Q.No.6 Planning is considered a key driver of development. Critically analyze why Pakistan's planning machinery has failed to deliver effective outcomes despite repeated reforms and five-year plans. (20)
- Q.No.7 Weak organization and mismanaged personnel systems are at the root of Pakistan's governance failures. Discuss critically, with examples from federal, provincial, and corporate public institutions. (20)
- Q.No.8 Financial administration is often described as the 'lifeblood' of public administration. Critically analyze the weaknesses of budgeting, auditing, and capital expenditure in Pakistan and their impact on governance legitimacy. (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

MUSLIM LAW AND JURISPRUDENCE

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 Discuss the sources of Islamic Law (Quran, Sunnah, Ijma, Qiyas). How have Pakistani courts interpreted these sources in the modern legal system? (20)
- Q.No.2 Explain the categorization of acts in Islamic Law – obligatory (Farz), recommended (Mustahab), permissible (Mubah), disliked (Makruh), and forbidden (Haram). How do these categories influence legal judgements in Pakistan? (20)
- Q.No.3 Analyze the concepts of Sahih (valid), Batil (void), and Fasid (defective) contracts in Islamic Law. How are these principles incorporated into Pakistan's Contract Act and commercial jurisprudence? (20)
- Q.No.4 Critically evaluate the role of Fatwa and scholarly opinions in the administration of Islamic Law in Pakistan. How binding are they on courts? (20)
- Q.No.5 Discuss the scope and application of Muslim Personal Law in Pakistan. How does it regulate marriage, divorce, maintenance, and inheritance? (20)
- Q.No.6 Examine the Law of Waqf (Islamic endowments) in Pakistan. How are charitable trusts regulated under Islamic Law? (20)
- Q.No.7 Critically evaluate the role of the Federal Shariat Court. How does it ensure conformity of Pakistani laws with the injunctions of Islam? (20)
- Q.No.8 Examine the interplay between statutory law and Sharia law in Pakistan. How do courts reconcile conflicts between modern legislation and Islamic injunctions? (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

MERCANTILE LAW

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 Discuss the doctrine of frustration and impossibility of performance. (20)
How has Section 56 of the Contract Act been interpreted by courts in Pakistan?
- Q.No.2 Explain the law of pledge. How does a pledge differ from bailment and (20)
mortgage?
- Q.No.3 Critically discuss the rights and duties of an agent and principal. How do (20)
the rules of agency balance authority with accountability?
- Q.No.4 Explain the distinction between a sale and agreement to sell. How do (20)
these affect transfer of ownership and risk?
- Q.No.5 Define partnership and explain its essential elements. How does it differ (20)
from a company and Co-ownership?
- Q.No.6 Discuss the nature and scope of Contracts of indemnity. How do they (20)
differ from contracts of guarantee?
- Q.No.7 Analyze the difference between life, fire, and marine insurance. How (20)
does each type reflect a distinct commercial and legal purpose?
- Q.No.8 Discuss the object and scope of arbitration. How does arbitration serve as (20)
an alternative to civil litigation in commercial disputes?

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

SOCIOLOGY

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 The individual is a social product, yet society is shaped by individuals. Critically examine this paradox in light of cultural norms, values, and ethnocentrism in Pakistani society. (20)
- Q.No.2 Compare the perspectives of Ibn-i-Khaldun's theory of social change with Karl Marx's conflict theory. Which theory better explains class struggles and social immobility in contemporary Pakistan? Justify with examples. (20)
- Q.No.3 Sociological research often fails to penetrate sensitive social realities. Critically evaluate the limitations and ethical dilemmas of applying participant observation and case studies to study phenomena such as prostitution, drug abuse, and smuggling in Pakistan. (20)
- Q.No.4 Pakistan's biradari, tribal, and feudal systems are seen as barriers to modernization. Do you agree? Critically assess their role in shaping social interaction, mobility, and power structures. (20)
- Q.No.5 Social control is not merely about law and institutions; it is embedded in culture and daily life. Discuss critically how informal and formal means of social control operate in Pakistan, particularly in relation to poverty and deviance. (20)
- Q.No.6 With reference to rapid urbanization in Pakistan, critically evaluate whether urban institutions (family, education, religion) are evolving to meet new challenges or disintegrating under pressure. (20)
- Q.No.7 Social change in Pakistan is more a product of diffusion than invention. Critically analyze this statement with examples from media, technology, and cultural globalization. (20)
- Q.No.8 Pakistan is experiencing a youth bulge, migration pressures, and demographic transition. Critically evaluate whether these trends are a source of opportunity or a recipe for deepening social problems. (20)

KHYBER PAKHTUNKHWA PUBLIC SERVICE COMMISSION
WRITTEN EXAMINATION FOR THE POSTS OF PMS OFFICER / AETO BPS-17
(2025)

JOURNALISM

Time Allowed: 03 Hours

Total Marks: 100

Note:- Attempt any five questions. All questions carry equal marks.

- Q.No.1 Differentiate between oral and written communication in the context of journalistic practices. Discuss their respective strengths, limitations, and suitability for media dissemination. Analyze how communication barriers can affect both forms and suggest practical strategies to overcome them in professional journalism. (20)
- Q.No.2 Explain the concept of public opinion and discuss its significance in shaping media content and political decision-making. Evaluate the role of opinion leaders in influencing public perception, with reference to relevant communication theories and contemporary examples. (20)
- Q.No.3 Define journalism and critically analyze how it serves the informational, educational, and entertainment needs of society. Discuss how the balance among these functions affects journalistic standards and public perception, particularly in the context of digital media transformation. (20)
- Q.No.4 Define sub-editing and critically examine it as the art of selecting and perfecting journalistic material within a media organization. Discuss the skills required for effective sub-editing, and evaluate how editorial judgement influences accuracy, clarity, and credibility of news content. (20)
- Q.No.5 Describe Public Relations (PR) and critically examine it as a strategic function of managing communication between an organization and its stakeholders. Discuss the skill required for effective PR and assess how ethical handling of information influences public perception and organizational credibility. (20)
- Q.No.6 Discuss the historical evolution of magazine journalism in Pakistan and critically analyze its role in the country's cultural and social values. Evaluate how magazines have contributed to public awareness, literary development, and socio-political discourse across different eras. (20)
- Q.No.7 Explain the concept and purpose of a press conference. Discuss in detail the essential steps involved in conducting a professionally standard press conference, including planning media coordination, message development, and post-event reporting. (20)
- Q.No.8 Critically analyze the ethics of journalism in Pakistan and analyze how adherence or non-adherence to ethical principles affects the credibility of media. Discuss the challenges faced by journalists in maintaining accuracy, impartiality, and accountability, particularly in the era of digital media and political polarization. (20)
