## **Combined Competitive Examination, 2021**

## Economics (Paper-I)

Monday the 14<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

Note	Attempt any Five	questions. All questions carry equal marks.	

- 01 Explain price and output determination under monopoly. Why monopoly price is higher than perfect competition.
- 02 Explain the circular flow of national income in a Three Sector Economy.
- 03 Explain and draw IS-LM Curves to show general equilibrium in goods and money markets.
- 04 "Additional benefit that a person drives from given stock of anything diminishes with the growth of stock that he already has". Please discuss.
- 05 Central Bank is responsible for financial stability of a country. Discuss.
- 06 Critically examine Ricardian's theory of comparative advantage.
- 07 What are different instruments of credit control. Which one is more effective? Discuss.
- 08 Explain how equality of saving and investment brings equilibrium of national income. Explain with the help of a diagram.

## **Combined Competitive Examination, 2021**

## Economics (Paper-II)

Tuesday the 15<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

#### Note Attempt any Five questions. All questions carry equal marks.

#### **Question No.**

- 01 Do you believe that health, labour productivity, and income levels are all linked? Explain in the light of development models.
- 02 What exactly is meant by "Absolute Poverty"? What are the preferred measurements of income poverty among development economists? How do income poverty measures differ from the United Nations Development Program's Multidimensional Poverty Index? Why should we be worried about measuring poverty in emerging countries?
- 03 Explain balance of payment position of Pakistan. Also give reasons for disequilibrium in B.O.P. Suggest measures.
- 04 Explain import substitution policy and export led growth strategy in Pakistan.
- 05 World is moving towards renewable energy and much has been done so far in this perspective whereas the contribution of renewable energy is very low in total energy production in Pakistan compared to Europe and the other parts of the World. What do you think are our shortcomings and how can we improve the renewable energy production in Pakistan.?
- 06 Large-Scale Manufacturing (LSM) rose by a solid 68.07 percent in April 2021, demonstrating spectacular growth in industrial output for the third consecutive month in Pakistan. What are the reasons behind such phenomenal growth in LSM in Pakistan? Discuss.
- 07 Green economic growth required a paradigm shift. What are the challenges that Pakistan must confront in its attempt to become a green economy? Discuss in details.
- 08 According to the findings of a France-based market research firm Ipsos, Pakistan loses more than Rs300 billion yearly due to tax evasion in five economic sectors, with illicit auto lubricants and tyres trade causing the most damage to the exchequer of all. What are the social, economic, institutional and political factors responsible for such huge tax evasions? Discuss.

## **Combined Competitive Examination, 2021**

## Accountancy & Auditing (Paper-I)

Monday the 14<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm marks. 100

Maximum

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# NOTE: ATTEMPT ANY 05 QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

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Question No.

01 Why Accounting is referred to as "Business Language"? What are the Functions of Accounting?

- 02 What factors influence International Accounting practices? What forces are leading to the global convergence of accounting practices?
- O3 ABC Works Company uses a job-order costing system for its products, which pass from the Machining Department, to the Assembly Department, for finished-goods inventory. The Machining Department is heavily automated; in contrast, the Assembly Department performs a number of manual-assembly activities. The company applies manufacturing overhead by the use of machine hours in the Machining Department and direct-labour cost in the Assembly Department. The following information relates to the year just ended:

	Machining	Assembly
	Department	Department.
Budgeted manufacturing overhead	\$2,000,000	\$1,540,000
Actual manufacturing overhead	2,130,000	1,525,000
Budgeted direct-labour cost	750,000	2,800,000
Actual direct-labour cost	725,000	2,890,000
Budgeted machine hours	200,000	50,000
Actual machine hours	212,500	55,000

The data that follows pertain to job no: DC66, the only job in production at year-end.

	Machining	Assembly
	Department	Department.
Direct material	\$12,250	\$3,350
Direct labour	13,950	29,300
Machine hours	180	75

**Requirement:** (i) Determine the pre-determined overhead rates used in the Machining

Department and Assembly Department.

- (ii) Determine whether overhead was under or over applied during the year in each department.
- (iii) If company adjusts over or under applied overhead into cost of goods sold, would the company's cost of goods sold account increase or decrease? Explain.

<u>P.T.O.</u>

- 04 Explain the difference between the terms 'Liquidity' and 'Solvency' when used in Ratio Analysis?
- 05 ABDC Corporation has following inventory:

Beginning Inventory	100 units @	\$8.00 = \$ 800
Purchase # 1	200 units @ \$6.00	= 1,200
Purchase # 2	100 units @ \$12.00	= 1,200

 Total
 400 units \$ 3,200

Use the information to answer the following questions.

- (i) What is ending inventory under the average cost method?
- (ii) What is cost of goods sold under LIFO?
- (iii) What is cost of goods sold under FIFO?
- 06 Ali setup his own catering business on 1<sup>st</sup> July 2015. During the 12 months upto 30<sup>th</sup> June 2021 the following transactions occurred:
  - (i) John put \$10,000 of his own money into the business.
- (ii) He borrowed \$20,000 from the bank for one year at 5 percent per annum, with interest to

be paid at the end of the loan.

- (iii) He paid \$10,400 in wages and owed \$3000 in wages for work done.
- (iv) He bought catering equipment for \$6000, which has an expected useful life of three years.
- (v) He paid other expenses of \$12,300.
- (vi) John sent bills for \$60,000 to customers for work performed between 1<sup>st</sup> July 2015 and 30<sup>th</sup> June 2016.

By 30<sup>th</sup> June he had received \$45,000 and expected the other \$15,000 by August. Using the concepts of accrual accounting, calculate John's profit for the year ended 30<sup>th</sup> June, 2021

- 07 What is the best use for the cash on the Company's Balance Sheet? How does the Company plan to raise capital in order to fund future growth?
- 08 Write short notes on the following:
  - (i) Accounting Cycle.
  - (ii) Accrual Accounting.
  - (iii) Periodic Inventory System.

## **Combined Competitive Examination, 2021**

## Accountancy & Auditing (Paper-II)

Tuesday the 15<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

NOTE: Attempt any 05 question. All questions carry equal marks.

#### Question No.

Marks

- 01 Briefly explain the meaning of the term "Corporate Governance".
- 02 Why Auditors need sufficient appropriate audit evidences to support financial statements? What procedure is used to obtain these evidences?

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- 03 Explain the difference between the overall audit strategy and the audit plan and state the key contents of the overall audit strategy document.
- 04 ISA 620 using the work of an auditor's expert provides guidance to auditors on relying on work carried out by an auditor's expert.

#### REQUIRED.

- (i) List four examples of audit evidence that might be obtained from the use of an auditor's expert.
- (ii) Describe the factors that should be considered by the auditor when evaluating the work carried out be the expert.
- (iii) Explains the actions the auditor should take if they conclude that the results of the expert's work do not provide sufficient appropriate audit evidence or if the results are inconsistent with other audit evidence.
- 05 How the Auditors evaluate the internal control components to believe that system of control is strong?
- 06 How analytical review procedures are used to describe the analysis of significant ratios and trends including the resulting investigation of unusual fluctuations and items.
- 07 Describe the steps in audit planning process and how effectively execution of each step impact on outcome?
- 08 Write short notes on the following:
  - (i) Assurance Provision.
  - (ii) Ethical responsibility of Auditors.
  - (iii) Objectivity in Audit.
  - (iv) Risk Assessment.

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### Combined Competitive Examination, 2021

## **Agriculture and Forestry.**

Friday the 25<sup>th</sup> February, 2022. Time: 02:30 pm to 05: 30 pm

Maximum marks. 100

NOTE: Attempt any Five questions by selecting atleast Two questions from each Section. All Question carry equal marks.

#### Question No.

### **SECTION-I**

- 01 Describe basic concept of Integrated Agriculture. Enumerate components of natural resources as basis for Agriculture Production. Please explain land and water resources in detail.
- 02 What is role of Agriculture in Pakistan's Economy? Please discuss significance of Agro based Industries for uplifting the economy of Pakistan as well as job opportunities to local communities.
- 03 Discuss Climate Change as a global issue. What are the merits and demerits for global warming and green house effect? How climate change affects the agriculture and forest productivity in Pakistan?
- 04 Explain Rain fed and Irrigated Agriculture. What is the role of land tenure and land reforms to minimize land holding problems of Farming Community in Pakistan.

#### **SECTION-II**

- 05 Describe the importance of Mangrove Forests. Where these forests are found in Sindh and their role in economic uplift of the fishermen.
- 06 Compare and contrast between any Two of the following:
  - (i) Agro forestry V/s Social Forestry.
  - (ii) Soil Profile V/s Soil Horizon.
  - (iii) G Mos V/s Mutants.
  - (iv) Cropping Patter V/s Cropping System.
- 07 What is the scope of Farm Forestry, Range Lands and Wildlife in economy of Pakistan? Please discuss in detail.
- 08 What is socio-economic and ecological impact of manmade forests. Discuss role of Forests in prevailing climate change dilemma of Forests.

## **Combined Competitive Examination, 2021**

### ANTHROPOLOGY

Wednesday the 23<sup>rd</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

#### Note:- Attempt any Five Questions. All questions carry equal marks.

#### **Question No.**

- 01 While discussing the various agents of enculturation & socialization, analyze how they shape the worldviews directing the behavior of individuals. Substantiate your arguments with pertinent examples from your society.
- 02 Discuss the interlink of power, social control and various political structures of the societies and explain these frameworks specifically in the context of Pakistani society.
- 03 Explain the following concepts with examples:
  - (A) McDonaldization and Globalization.
  - (B) Assimilation and Acculturation.
- 04 Discuss the ways in which electronic and social media construct, deconstruct and/or reconstruct socio-cultural realities influencing the lives and worldviews of ordinary citizens in Pakistan. Substantiate your discussion with relevant examples and incidents from Pakistani media and society.
- 05 How can Anthropology assist in comprehending and proposing solution to Pakistan's multifaceted contemporary societal problems in order to facilitate social change and development?
- 06 What are the main five branches of Anthropology? Which one, in your opinion, is most intent on understanding Pakistani society and its intricate social relationships?
- 07 What is the difference between an Extended Family System and a Joint Family System? Why are these family systems collapsing in Pakistan day by day? What are the causes and repercussion for inhabitants of the Rural Pakistan?
- 08 Anthropologists conduct research into family, marriage and kinship. What are these social units and why are they significant in society? Since the majority of societies have some forms of incest taboo. Discuss the incest taboo in the context of kinship and social organization.

## **Combined Competitive Examination, 2021**

## **BUSINESS ADMINISTRATION.**

Wednesday the 16<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

<u>Note</u> <u>Attempt any Five questions. All questions carry equal marks.</u>

#### **Question No.**

- 01 What do you know about Organizational boundaries? Describe the characteristics of a boundary less organization structure. How do you think "tomorrow's" employee will accept these characteristics?
- 02 What is HR management? Illustrate the HR management responsibilities of the line and staff managers.
- 03 "Good interviewing is an Art as well as Science". If you were interviewing a promising candidate but he seemed nervous, what action might you consider to clam the candidate? Explain.
- 04 What is the role of cycle inventory in a supply chain? Identify managerial levers that reduce lot size and cycle inventory in a supply chain without increasing cost.
- 05 Ahmed is having two different saving plans options. The first plan would have his deposit Rs.10000 every six month, and he would received interest at an 8 percent annual rate, compounded semiannually. Under the second plan he would deposit Rs.20000 every year with a rate of interest of 8.5 percent, compounded annually. The initial deposit with plan 1 would be made six months from now and with Plan 2, one year hence.
  - (a) What is future value of first plan at the end of 5 years?
  - (b) What is future value of second plan at the end of 5 years?
- 06 A limited capital is composed of 5% ordinary shares, 3% of preference shares and 2% bond. The company paid 12% dividend to ordinary shares. The preference shares have a constant dividend rate of 14% p.a. and 10% interest is to bondholders by company. If the company is within 40% tax bracket, determine Weighted Average Cost of capital of the company.
- 07 Explain market-skimming and market-penetration pricing strategies. Why a marketer of innovative high-tech products would chose market skimming prices rather than market penetration pricing when launching a new product.
- 08 How consumers make purchasing decisions? Explain five stage model of consumer buying process.

## Combined Competitive Examination, 2021

## **<u>BOTANY.</u>**

Friday the 25<sup>th</sup> February, 2022. Time: 02:30 pm to 05: 30 pm

Maximum marks. 100

Note: Attempt any Five questions. All questions carry equal marks.

#### Question No.

- 01 Describe the plant microbe of interaction? And describe how bacteria are harmful and beneficial, explain with suitable examples?
- 02 Discuss in detailed discovery of Virus and define various steps during replication of viruses?
- 03 Discuss the role of Algae in sewage disposal and waste land reclamation? What's the role of Algae in water pollution?
- 04 Describe the growth regulatar? Explain the mechanism of action of abscisci acid, gibberellin, cytokinin and ethylene?
- 05 Discuss the role of fungi in food industry? Explain the commercial importance of Algae and bryphyta and historical background of the algae?
- 06 Describe the form and structure of plants growing in deserts. What peculiar features have helped them to succeed in such situations?
- 07 What do you understand by transcription and translocation of the genetic information contained in DNA? Describe the mechanism involved in these processes?
- 08 What are the polymines? Give their biological significance and metabolism in plants?

### **Combined Competitive Examination, 2021**

## **CHEMISTRY**

Thursday the 17<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

<u>Note</u>	Atten	npt any Five questions.	
==== Quest	tion No.	· · ·	===== Marks
01	(A) (B)	Write a detailed note on fuel cell, its, types and working of a fuel cell. Explain electrochemical series and describe its role in the construction of cell.	10 10
02	(A)	What are the different concept of Acids and bases? Discuss with suitable examples.	10
	(B) (C)	What is common Ion effect? Give its applications. What are Redox Indicators and adsorption Indicators? Explain.	05 05
03	(A)	Define first order reaction. Derive the Kinetic expression for the first order reaction.	12
	(B)	What is Pseudo-Unimolecular reaction? Discuss it with suitable examples.	08
04	(A)	Explain the term Quantum number. Give a brief account of the four quantum numbers.	12
	(B)	Discuss Valence Bond Theory of bonding in $H_2$ molecule. Point out his main limitations.	08
05	(A) (B)	Derive Schrödinger wave equation for the wave mechanical model of an atom What is Einstein Theory of Photoelectric effect? What conclusion can be drawn from this theory?	n. 08 06
	(C)	Derive de-Broglie's equation for the dual nature of matter. Apply this equation for microscopic and macroscopic properties of substances.	on <b>06</b>
06	(A) (B)	<ul> <li>What are necessary conditions for the absorption of IR region, and why?</li> <li>What is difference between: <ul> <li>(i) Choromphore and anxochrome</li> <li>(ii) Pyrolysis and cracking</li> <li>(iii) Optical rotation and specific rotation.</li> <li>(iv) Anti staggered and gauche-staggered.</li> </ul> </li> </ul>	08 12
07	(A) (B)	Discuss the Raw material used for the production of Glass Industry. Discuss the manufacturing of soap by continuous process with the help of flow sheet diagram.	10 10
08	(A)	Write down the reaction and mechanism of Friedel-Craft alkylation and acylation of benzene.	10
	(B)	Define Aromaticity. What is Huckle rule? Explain with examples?	10

## **Combined Competitive Examination, 2021.**

## **Computer Science (Paper-I)**

Monday the 14<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

Quest	ion No.		arks
Note:		<u>SECTION-A</u> ection carries Total 50 marks. Attempt any Three questions from this Section ng Two questions of 20 marks and 01 question of 10 marks.	<u>by</u>
01	(A)	Discuss the role of structured and procedural languages in the genealogy	10
	(B)	of object-oriented languages. Compare and contrast compilation and interpretation as software translation processes.	10
02		s the term Array and its types: Linear and Multidimensional Arrays g suitable coding examples.	20
03		e following with the help of programming examples:	20
	(i) (ii) (iii) (iv)	Encapsulation Inheritance and its types (Public, private and protected. Polymorphism Operator Overloading	
04	In what	ways can configuration information be represented on a Computer?	10
05	Explair	the importance of finally block in Java?	10
Note:		<u>SECTION-B</u> ection carries Total 50 marks. Attempt any Three questions from this Section ng Two questions of 20 marks and 01 question of 10 marks.	<u>ı by</u>
06	Explain (i) (ii) (iii) (iv)	n the following in context of Software project: Reusable Software Recourses Project Management Skills. Role of 4Ps in achieving software quality. Capability Maturity Model Integration (CMMI)	20
07	(A)	Discuss how Software Testing relates and ensures Software Quality.	10
	(B)	How much testing is considered enough for quality software products? Differentiate between Black Box and White Box Testing techniques.	10
08	Explair	the different phases of Computer design with the help of suitable diagrams.	20
09	Explair	the fundamental differences in the Abstract Syntax Trees and Parse Trees.	10
10	What is	s Lexical Analysis and describe role of Lexical Analysis in compiler constitution.	10

## **Combined Competitive Examination, 2021.**

## **Computer Science(Paper-II)**

Tuesday the 15<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100 \_\_\_\_\_

Quest	ion No	). N	lark
<u>Note</u> :		<u>SECTION-A</u> Section carries Total 50 marks. Attempt any Three questions from this Sectioning Two questions of 20 marks and 01 question of 10 marks.	on by
01	Discu conve	ss the role of session support also discuss the role of internal representation rsion.	20
02	(A) (B)	Explain different file allocation methods with the help of diagrams. Discuss and explain why does fixed portioning suffer from internal fragmentation whereas dynamic partitioning suffers from external fragmentation. Illustrate the reason with suitable examples.	10 10
03	(A) (B)	Discuss the role of each layer in the OSI network model. Describe the feature operation and use of well-known TCP/IP network layered services.	10 10
04	What	is Preemptive Multitasking?	10
05		rate the term Machine instruction. Discuss the different characteristics chine instruction.	10
<u>Note:</u>	<u>This</u> (	<u>SECTION-B</u> Section carries Total 50 marks. Attempt any Three questions from this Section	n by
	<u>select</u>	ing Two questions of 20 marks and 01 question of 10 marks.	
06	What	is the role of edge detection in image segmentation.	20
07	(A)		10
		Discuss with appropriate examples the error reporting functionality using MySQL functions to report errors.	10
	(B)		10 10
08	(B) (A)	using MySQL functions to report errors. Write a program to connect PHP with MySQL using mysqli connect(). List out the database operations. Describe using suitable example the dilation and erosion	
08		using MySQL functions to report errors. Write a program to connect PHP with MySQL using mysqli connect(). List out the database operations.	10
08 09	(A) (B)	<ul><li>using MySQL functions to report errors.</li><li>Write a program to connect PHP with MySQL using mysqli connect().</li><li>List out the database operations.</li><li>Describe using suitable example the dilation and erosion morphological transformations on a binary image.</li><li>Explain the concept of edge detection in digital image processing. Discuss</li></ul>	10 10

## **Combined Competitive Examination, 2021**

## **Comparative Study of Major Religions (For Non Muslim)**

Saturday the 12<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

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#### Question No.

- 01 Religion creates the harmony among followers. Discuss its significance and evolution through different ages.
- 02 Hinduism is considered the oldest Religion. Discuss its background, sacred books, festivals and different movements.
- 03 Discuss the term Religion in detail and describe its kinds and divisions.
- 04 Highlight the main teachings of Buddhism including four noble truths and eight noble paths.
- 05 Discuss the background of Judaism and give the life sketch of its founder.
- 06 What is Prophethood in Islam and why did God send the Prophets to every nation and tribe?
- 07 What are the basic human rights in different world religions?
- 08 Give life sketch of Jesus Christ and his ethical teachings. Also discuss the socio-religious conditions before the birth of Jesus Christ.

## **Combined Competitive Examination, 2021**

## Constitutional Law.

Saturday the 26<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

Note:	Attempt any Five questions. All questions carry equal marks.		
Questi	on No.		
01	Discuss in detail the writ jurisdiction of High Courts and its limitations under Art. 199 of the Constitution of Pakistan?		
02	What are the powers of Supreme Judicial Council? Specify your answer with relevant provisions.		
03	Under the constitution of Pakistan 1973, through which stages a "Bill" passes by for becoming an "Act" of the Parliament and further to become a "Law"? Briefly explain the process and procedure of law-making in the Senate.		
04	Describe the process of law making in the U.S congress.		
05	Discuss elaborately the independence of Judiciary in England.		
06	Critically examine the salient features of the Government of India Act 1935 and its short comings.		
07	<ul> <li>Write short notes on any two of the following:</li> <li>(i) Election procedure of President under the Constitution of France.</li> <li>(ii) Enforcement of Human Rights in the Russian Constitution.</li> <li>(iii) The theory of Separation of Powers.</li> </ul>		
08	<ul> <li>Write short notes on any Two of the following:</li> <li>(i) Lord Chancellor</li> <li>(ii) Privy Council</li> <li>(iii) Magna Carta</li> <li>(iv) Act of State.</li> </ul>		

## **Combined Competitive Examination, 2021**

## Criminology.

Saturday the 26<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

NOTE:	Attempt any Five Questions by selecting at least 01 Question from each Section.
	All questions carry equal marks.

Question No.

## **SECTION-I**

- 01 How Crime is different from deviance? Explain elements of Crime with suitable examples.
- 02 Define Psychopathy. What extent do you believe psychopathic characteristics contribute to adopting violent criminality?

## **SECTION-II**

- 03 Define rationale of Probation as an alternative to imprisonment. Critically examine the Probation process along with its advantages and disadvantages.
- 04 What is Penology? Discuss the importance and scope of Penology in the administration of Criminal justice system.

## **SECTION-III**

- 05 What type of forensic knowledge that a modern-day investigator must achieve to become an effective investigator?
- 06 Police in Pakistan is alleged to have been involved in corrupt practices, what will you suggest to reform their performance as criminal justice can prevail in our society?

## **SECTION-IV**

- 07 What particular social conditions do you observe that promote violence against women in our society?
- 08 Write brief notes on any Two of the following:
  - (A) Transitional Money Laundering (TML).
  - (B) National Action Plan (NAP).
  - (C) Community Policing.
  - (D) Cyber Crime.

## **Combined Competitive Examination, 2021**

## **GENDER STUDIES**

Friday the 25<sup>th</sup> February, 2022. Time: 02:30 pm to 05: 30 pm

Maximum marks. 100

#### Note: Attempt any Five questions. All questions carry equal marks.

Question No.

- 01 What is Feminism? And what is the Post-modern Feminist Theory? Elaborate in detail.
- 02 Do you think that First, second and third wave of Feminists' movements objectives have been achieved or achievable in Pakistan? If yes, how? If not why?
- 03 How do you see that Globalization potentially contributing to greater Gender equality or not? Discuss in detail.
- 04 How would you define Gender and Gender Roles as a process of Social Constructionism?
- 05 Does 'Queer-Theory' reject the traditional approach of Gender and Sexuality? Analyze and discuss.
- 06 What are the current integration debates in 'Gender Studies Versus Autonomy' define with suitable references?
- 07 How do you define Gender-based violence in general and domestic violence in Pakistani context, and suggest some policy measure and strategies to eliminate violence against women?
- 08 Identify the gaps in Gender/Women and employment and suggest how this gap can be constricted in Pakistani society in formal sectors.

## **Combined Competitive Examination, 2021**

## HISTORY OF USA.

Thursday the 24<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

<u>Note</u> <u>Attempt any Five questions. All questions carry equal marks.</u>

#### **Question No.**

- 01 Critically evaluate the formation and structure of the USA Constitution.
- 02 What do you know about the Water Gate Scandal? What lesson the American nation had learned from it?
- 03 Even though Great Britain and the United Sates of America fought a Revolutionary War in the 1770s and the War of 1812, how did the two powers come closer in the later parts of the nineteenth and the twentieth centuries? Elaborate.
- 04 Discuss in detail the causes and effects of the Great Depression on the people and society of the United States of America.
- 05 What were the causes which led the United States of America to enter the Second World War?
- 06 Critically evaluate the presidency of Franklin D. Roosevelt about his accomplishment and failure.
- 07 Evaluate the US invasion of Iraq in 2003. How far have the American policymakers remained successful in achieving their goals?
- 08 Write short notes on any Two of the following:
  - (i) George Washington.
  - (ii) The issue of slavery.
  - (iii) Monroe Doctrine.
  - (iv) Pakistan and USA Relations after 9/11.

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## **Combined Competitive Examination, 2021**

## ENGLISH LITERATURE

Friday the 25<sup>th</sup> February, 2022. Time: 02:30 pm to 05: 30 pm

Language".

Maximum marks. 100

======================================		Attempt any Five questions. All questions carry equal marks.
Question No.		
01	(A)	Emerson's "Self-Reliance" is one of the most important statements of transcendentalist beliefs and how they apply to everyday life. Elaborate.
	(B)	Write an analysis of George Orwell's "Politics and the English

- 02 Mention, in detail, the impact of Renaissance on the development of English Literature.
- 03 Write a critical account on story, plot and characterization of 'Long Day's journey into Night' by Eugene O' Neil.
- 04 Write a note on dramatic excellence of William Shakespeare with special regard to his famous tragedies.
- 05 "20<sup>th</sup> century novel is a vast canvas to draw the issues of the contemporary life with different colours". Elaborate.
- 06 T.S. Eliot's 'The Waste Land' is a glaring example of modern man's hollowness in many walks of life such as religion, morals, physical, ethics, character and artificial life. Discuss.
- 07 'Under the Net' by Iris Murdrich is the most Light-hearted London Picaresque, largely a series of comic set-pieces loosely structured novel. Elucidate.
- 08 Write notes on any Three of the following literary theories:
  - (i) Feminism.
  - (ii) Psychoanalysis.
  - (iii) Structuralism.
  - (iv) Marxism.
  - (v) Postcolonialism.

## **Combined Competitive Examination, 2021**

## **English Essay**

Monday the 07<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

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**Note:** Write an Essay on any 01 (One) of the following topics. You are required to write an outline of the Essay, a clearly articulated thesis statement in the introductory paragraph and topic sentences in the body paragraphs. The Essay should present a tangible and coherent argument. You are encouraged to use simple English and quote reference where applicable.

#### **Question No.**

- 01 Global Vaccination Politics post Covid-19.
- 02 Future of Remote Learning.
- 03 Oil Markets and Geo-politics of the Middle East.
- 04 Revival of International Cricket in Pakistan.
- 05 Absentee landlords and their impact on Pakistan's Economy
- 06 National Identity, its importance for people of a country.
- 07 Importance of Language in a Multilingual State.
- 08 'We give the public what it wants'. Discuss this view with reference to the television programmes in a country.
- 09 Rights, duties and ethics of a successful Journalist.

## <u>SINDH PUBLIC SERVICE COMMISSION, HYDERABAD.</u> <u>Combined Competitive Examination, 2021.</u>

## **GOVERNANCE & PUBLIC POLICIES.**

Wednesday the 16<sup>th</sup> February, 2022. Time: 02:00 pm to 0: 00 pm

Maximum marks. 100

Note	Attempt any Five questions. All questions carry equal marks.
Ouest	
01	Discuss the various theoretical framework of Governance. Do you think the concept of Governance is still blurry in Pakistan's context, explain it logically.
02	Sustained Economic Policies are pillars of Economic Growth. Please elaborate the subsidies and protection instruments implication s on Economic Development.
03	Analyze the role of Pakistan Bureaucracy in Public Policy Perspective and the various elements responsible in crafting the Public Policies.
04	Elaborate Policy making process with an overview of the different stages focusing the societal problems. Please discuss the Policy Problem(s) and its implications.
05	What is Political Economy; please discuss the role of Political institutions responsible for addressing the public issues in Pakistan' Economy.
06	The Planning process is fundamental for the Socio-Economic development of the country; please highlight the role of planning commission or provincial planning department and define the elements of project planning process in Pakistan.
07	How the Rational Choice Theory is relevant with Public Governance? Please articulate your argument considering; rational stakeholders, individual interest and pressure group/ lobbyist.
08	Why Local Government System is important in the three tier governance system in

08 Why Local Government System is important in the three tier governance system in Pakistan and also highlight the key challenges and way forward for an effective functioning of local government system in addressing community based local issues.

## **Combined Competitive Examination, 2021**

## General Science & Ability.

Friday the 11<sup>th</sup> February, 2022.

Time: 02:30 pm to 05: 30 pm

Maximum marks. 100

Note: Attempt any two questions from each Section. Question No. 01 is compulsory. (Total 05 questions)

#### Question No.

<u>Marks.</u>

## 01 Choose the correct Answer from the following options 20

- (i) Which scale is used to measure the intensity of Earth Quake:
  - (A) Richter (B) Meter (C) Centigrade (D) Newlow
- (ii) Among the following planets, which is the brightest planet?
  - (A) Mercury (B) Venus (C) Mars (D) Jupiter

(iii) Which of the following energy has the greatest potential among all the sources of renewable energy?

(A) Solar Energy (B) Wind Energy (C) Thermal Energy (D) Hydro-electrical

Energy.

- (iv) AIDS is caused by: (A) Fungus (B) Virus (C) Bacterium (D) Helminth.
- (v) Which of the following gas is more in percentage in the air?
  - (A) Oxygen gas (B) Nitrogen gas (C) Water vapour (D) Carbon dioxide gas.
- (vi) A substance needed by the body for growth, energy, repair and maintenance is called

a:

- (A) Nutrient (B) Carbohydrate (C) Calorie (D) Fatty acid
- (vii) Ohm: Watt: Volt. (A) Light (B) Electricity (C) Hour (D) Ampere
- (viii) 1, 4, 9, 16, 25 (\_\_\_\_): (A) 35 (B) 36 (C) 48 (D) 49
- (ix)  $5005 5000 \div 10 = ?$  (A) 0.5 (B) 50 (C) 5000 (D) 4505
- (x) Which is the smallest unit of Data in computer: (A) Bit (B) Byte (C) Kilobyte (D)

Mini byte

(xi) CNG stands for:

(A) Converted natural gas (B) Conduced natural gas (C) Compressed natural gas (D) Clean natural gas.

- (xii) Urine is produced in: (A) Kidney (B) Lungs (C) Large Intestine (D) Liver.
- (xiii) Meteorology is study of: (A) Rain (B) Iron (C) Winds (D) Atmospheric science.
- (xiv) HTML is an abbreviation for : (A) Hi Tech meaningful language (B) Hypertext Markup Language (C) Hi Tech markup language (D) Hypertext makeup language.
- (xv) Solar eclipse occurs when: (A) Earth comes between sun and moon
   (B) Moon is at right angle to the earth (C) Moon comes between sun and earth
   (D) Sun comes between moon and earth.
- (xvi) Permanent hardness of water cannot be removed by:
  - (A) Boiling (B) Adding caustic soda (C) Distillation (D) Adding soda.
- (xvii) The function of liver is to: (A) Promote digestion of food (B) Promote

respiration

(C) Store glucose as glycogen (D) None of these

(xviii) Speed of light is:

- (A) Eight hundred fifty miles per second (B) Two hundred miles per second(C) One lac eighty six thousand miles per second (D) One thousand miles per second.
- (C) One fac eighty six thousand times per second (D) One thousand times per second (D) Fight zero (R) Six zero (C) Seven zero (D) Fight zero
- (xix) Million has got: (A) Five zero (B) Six zero (C) Seven zero (D) Eight zero.

(**xx**)

Carbon dating is used for: (A) Collecting carbon (B) Finding the age (C) Hardening the diamond (D) Melting steel.

**P.T.O.** 

### **SECTION-I**

02	(A)	What is global warming and its effects on our Agriculture Sector. 10
	(B)	What are green house gases and its effects. 10
03	Please	explain the following with suitable examples: 20
	(i) Art	ificial Intelligence (ii) Augmented Reality (iii) Virtual reality (iv) Robotics.
04	(A)	What is different between Climate and Weather? Please explain. <b>10</b>
	(B)	How Altitude and Latitude impact the climate? Do following parameters can be <b>10</b>
		impacted by them: i.e. Temperature, Pressure and Air Circulation.
05	(A)	Define the following and differentiate: 10
Galaxy		(i) Solar and Lunar Eclipses (ii) Rotation and Revolution (iii) Universe and
year	(B)	<ul><li>(iv) Precipitation and Humidity</li><li>What is light year? Why do Astronomers' measure distance in light years? Can light</li><li>10</li></ul>
<i>j</i> •		be used to measure time? Discuss with examples.
		SECTION-II
06.	(A)	A Bat and Ball cost Rs. 1.10 in total. The bat costs one Rupee more than the ball. <b>05</b> How much does the Ball Cost?
	(B)	A camera costs Rs.180 in a 10% sale. What was the pre-sale price? 05
	(C)	(i) Rs.200 (ii) Rs. 300 (iii) Rs.400 (iv) None of these. What percent of 12 is 84? (i) 800% (ii) 600% (iii) 700% (iv) None of these. 05
	(D)	If 200% of a number is 90, then what is the 80% of that number? 05
		(i) 48 (ii) 36 (iii) 24 (iv) None of these.
07 deducti	(A) ve	What is logical reason and how one can answer logical reasoning questions? Present <b>10</b>
	(B) giv	and inductive reasoning examples: From a group of seven candidates ( A, B, C, D, E, F and G), four will be selected to
	giv	<ul> <li>A presentation for recruitment. The following must be met:</li> <li>(i) Either A or B must be selected, but A and B cannot both be selected.</li> <li>(ii) Either E or F must be selected, but E and F cannot both be selected.</li> <li>(iii) E cannot be selected unless C is selected.</li> <li>(iv) G cannot be selected unless B is selected.</li> </ul>

If we know that F is not selected to present, how many different groups of four can be made,

following the above criteria?

(I) One; (II) Two; (III) Three; (IV) Four; (V) Five

(A) What number comes next? **05** 9, 15, 13, 19, 17, 23....

08

(A) Aftab leaves his house at 20 minutes to seven in the morning reaches Akbar's house 10

which takes another 35 minutes. At what time do they leave Akbar's house to reach their office?

(i) 7.40 a.m (ii) 7.20 a.m (iii) 7.45 a.m (iv) 8.15 a.m

(B) Yousif left home for the bus stop 15 minutes earlier than usual. It takes 10 minutes to **10** 

reach the stop. He reached the stop at 8.40 a.m. What time does he usually leave home.

(i) 8.30 a.m (ii) 8.45 a.m (iii) 8.55 a.m (D) None of these.

09 Differentiate what is a dam, a carryover dam and a barrage. Also, write short note on their importance 20

for Pakistan.

## Combined Competitive Examination, 2021

## **GEOGRAPHY.**

Wednesday the 23<sup>rd</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

<u>Question No.</u> <u>SECTION-I</u> <u>Note: This Section carries Total 50 marks. Attempt any Three questions</u> <u>by selecting Two questions of 20 marks and 01 question of 10 marks.</u> 01 Explain the statement that 'Climate shapes is huge tall of extreme weather 20

01	Explain the statement that 'Climate change is huge toll of extreme weather disasters in 2021'.	20			
02	What do you understand by the Plate Theory? What has it to do with (a) the formation of mountain, (b) earthquakes, (c) volcanoes?	20			
03	How do ocean currents affect climate in northern latitude?	20			
04	Describe the concept of fluvial erosion cycle and elaborate the pane plain concept of William Morris Davis in detail.				
05	Differentiate between hazards and disasters. Discuss the role of human being in the severity of different hazards. <b>SECTION-II</b>	10			
	Note: This Section carries Total 50 marks. Attempt any Three questions by selecting Two questions of 20 marks and 01 question of 10 marks.				
06	'Current strategies for controlling the spread of infectious disease are generally effective but will have to change in future as a consequence of environmental change'. How far do you agree with this statement?	20			
07	Concerning population size and population density, explain one way each of the terms differ from each other, in relation to their.	20			
08	What are the 05 causes of drought? What are the effects of drought on the environment?	20			
09	Agriculture faces a number of problems in the developing countries of the world. Give workable suggestions for the sustainability of agriculture in the development counties of the world.	10			
10	The developed countries of the world has a monopoly on the tourism and recreation industry. With reference to this statement discuss the factors affecting the uneven distribution of tourism and hospitality industry of the world.	10			

## **Combined Competitive Examination**, 2021

## **Environmental Sciences.**

Friday the 25<sup>th</sup> February, 2022. Time: 02:30 pm to 05: 30 pm

Maximum marks. 100

Note	: Atte	mpt any Five questions. All questions carry equal marks.				
Question No.						
01	(A) (B)	Discuss the history of famous Global Environmental Movements. Explain the nexus between Environmental degradation and poverty.				
02	(A) (B)	What is climate smart agriculture and how it can be implemented? What are the challenges faced by Pakistan to achieve SDGs?				
03	(A)	Discuss the control measures to curb smog pollution in the Punjab Province?				
	(B)	What are the constructed wetlands and how it can help to trea Wastewater?				
04	(A) (B)	What is Eutrophication? Describe its causes and Mitigation steps. What is Desertification? Explain its causes, effects and control measures				
05	(A) (B)	How the Phytoremediation can help to clean up contaminated soils? Discuss the difference between greenhouse gas effect and Globa Warming.				
06	(A) (B)	What is climate change adaptation and mitigation? Briefly discuss the clean development mechanism and REDD+.				
07	(A) (B)	What is geographical information system (GIS) and remote sensing? What is participatory natural resources management?				
08	(A) (B)	What are the technological approaches to solid waste management? How the national food security can be safeguarded through sustainable agriculture?				
		*****				

## **Combined Competitive Examination, 2021**

#### **English (Précis and Composition)**

Tuesday the 08<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm Maximum marks. 100

\_\_\_\_\_

#### Note: Attempt all Questions.

\_\_\_\_\_\_

#### **Question No.**

<u>Marks.</u>

#### 01 Make a précis of the following passage and give a suitable title: 20

Things change with the passage of time. There have been great many changes in the world. Most of thickly populated cities and towns that existed centuries ago are reduced to ruins and give a deserted look now. Cities and towns that were destroyed by natural calamities or razed to the ground by invaders long ago have again been populated thickly and become great trading centers and tourist places. Some of them afford breath-taking scenes and wonderful places ever seen on the earth. Small towns have been developed to be big cities and deserted places have become worth-seeing places. This all happens because change is a constant course of life.

It is but natural that man is attracted by innovations, discoveries, inventions, new creations and change in his life. That is why he has created wonderful things for his ease and comfort. Wonderful, magnificent and sky-high buildings reflect his tendency to high life, luxurious living and glorious and glamorous station of life. Gone are the days when man used to light oil lamp and cooked food by burning firewood and coal. Means of transport, communications and routes of conveyance have drastically changed. Modern inventions have brought wonderful change in our life-style and made our mobility frequent and speedy, and living amazingly convenient.

Some drastic and violent changes were brought by cruel and wicked invaders who not only plundered wealth and precious things, but also put tens of thousands of innocent people to sword. Genghis Khan and Hulagu Khan of Mongol stock are the worst examples of tyranny, scourge, mass killing of Muslims and hostility and ill-will towards Islam. They laid cities, crops and bazaars waste and set libraries and properties of Muslims on fire and reduced magnificent buildings to debris and dust and burnt thousands of precious and rare books to ashes. Their invasions came as wrath of God to teach transgressors a lesson.

Baghdad and Delhi are two glaring examples of brutality and maltreatment to innocent people whom attackers caught unawares and put them to sword mercilessly. However, things change with the passage of time. Desolate and destructed places were populated again. Life returned to these places. Markets bustling with life remained open for longer hours and sold wonderful things. Places of entertainment, show business, cinemas and theaters attracted more audience, spectators and visitors than ever. Culture, civilizations, old traditions and life were revived to afford the people an opportunity to enjoy exuberance, beauties of nature, insight, profound knowledge and innumerable worldly and divine blessings.

#### 02 Read the following passage carefully and answer the questions set below it.

We human beings are often too hasty to use our brains. Even in most important matters and critical junctures, we take <u>a leap in the dark</u>. We <u>merely</u> embark upon most important ventures without proper deliberation and planning. Sometimes we are least careful and forget a best proverb, "Slow and steady wins the race." Like many <u>hit and run drivers</u>, we commit blunders and hurt ourselves and other innocent people. It is because of certain reasons. First, like a blacksmith, we have so many irons in the fire. We are <u>overtaken</u> by worldly affairs, and <u>the world is too much with us</u>. We are too busy to look behind and <u>to and fro.</u> Like a reckless driver, who just pulls out to gain a few minutes out of the required time, we hasten to do several things in a short time. Ambitions have <u>overtaken</u> us, and we feel <u>overcome</u>, lost and hollow. Second, we think that we can make most of our time by hurrying from our schedule. Third, there are many things that we miscalculate or underestimate. They take their due time to materialize. Nature has its own course, and when we humans go against it, suffer deservedly. Nature has its own laws, order and principles for we people to abide by. In most cases, we go against them or ignore them <u>altogether</u>. Fourth, we are too impatient to wait and <u>see what way the wind blows</u>. We become too optimistic to know

the hard realities of life and hidden dangers lying in wait in our way. In addition, we don't observe the things with clear head and observant eyes, and as a result, <u>we are caught unawares</u> in most of the things we do. Absence of proper deliberation leads us to limbo, chaos and confusion. Last, ignorance about dangers around, wishful thinking and <u>building castles in the air</u> come in our way and <u>leave us in the lurch.</u>

(i) In your own words mention some of the reasons why we face problems and failures in practical life? **04** 

(ii) Keeping in view the ideas mentioned in the passage, suggest some wise steps from your own knowledge 04

for success and making our dreams come true.

(iii) In the above passage the words in Italics, 'overtaken' has been used twice, 'overcome' has been used once. 02

Are these words used subjectively or objectively? Write your answers separately for each word. **P.T.O.** 

- (iv) Identify the underlined words(In bold) 'merely', 'altogether' as words / parts of speech.02
- (v) Define (give meanings) of the eight underlined proverbs, phrases, idioms and sentences in the 08 passage above.

#### 03 (A) Write appropriate Synonyms for any Five of the following words: 05

	(i)	Apprehension	(ii)	Sniff		(iii)	Althoug	h	(iv) Persu	ade
(v)	Annoy	(vi)	Sympl	nony	(vii)	Decrep	oit	(viii)	Devastati	ng
	(B) Write	e appropriate A	Antony	ms for a	ny Fiv	e of the	e followi	ng:		
	05									
	(i)	Commission	(ii)	Infer		(iii)	Alien		(iv)	
	Befriend									
	(v)	Persuade	(vi)	Resolut	ion	(vii)	Dorman	t	(viii)	
	Deceased									
	(ix)	Procrastinate	(x)	Chaos						

#### 04 (A) Do as directed:

- 20
- (i) He is the tallest of all the other boys in the class.
- (Change to positive degree keeping the sense of comparison intact).
- (ii) Despite of hard work, she failed the English once more again.
- (Rewrite the sentence omitting words that render it incorrect).
- (iii) We \_\_\_\_\_ the founder of the nation's death anniversary regularly. (Insert appropriate verb)
  - (iv) It has \_\_\_\_\_ a long time since we \_\_\_\_\_ last. (Insert appropriate verbs)
  - (v) Whats your name dear (Use punctuations marks)
  - (vi) \_\_\_\_\_ owner and \_\_\_\_\_ manager of \_\_\_\_\_ firm are in their offices. (Insert appropriate article(s)
  - (vii) My father left me the house \_\_\_\_\_ his will. (Use appropriate preposition).
  - (viii) JUI-Fazal \_\_\_\_\_ amid dismal PTI show in KPK Polls. (Use a phrasal verb and a

noun)

- (ix) We listened eagerly, \_\_\_\_\_ he brought news of our families. (Use conjunctions)
- (x) We cultivate some pieces of <u>arable</u> land. (Write synonym and antonym of the

underlined word)

## 05 Give meaning of any Five of the following pairs of words and use them in your sentences. 10

Use each word of the pair separately. (In all ten sentences)

(i) Bolster (v), prop (v) (ii) Amateur, professional (iii) Sinecure, honorary (iv) Alteration, altercation

(v)Deface, efface(vi)Moonlight, moonshine(vii)Martial (adj), marshal (N)(viii)Croak (V), crook (N)(ix)Creak (V+N), creek (N)(x)Affluent, effluent.

#### 06 Correct any Five of the following sentences: 10

(i) Children enjoy to play under the sun.

(ii) She watched me stealing from her purse and sneaking.

(iii) The khan Liaquat Ali khan first prime minister of Pakistan was assassinated in the Liaquat bagh

Rawalpindi.

- (iv) Above all you are my pal brother in law business partner and neighbour.
- (v) Last, but not the least I'd like to thank all the catering staff.
- (vi) After night came it started to rain a wall of our house fell and the roof of our room came

down.

(vii) Having arrived there I found door stood open and valuable stole.

### Combined Competitive Examination, 2021

## <u>GEOLOGY</u>

Thursday the 17<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

\_\_\_\_\_

NOTE: Attempt any Five questions. All questions carry equal marks.

\_\_\_\_\_

#### Question No.

- 01 What is the difference between Petrology and Petrography. Also explain the three types of rocks with their classification?
- 02 How will you explain the Rocks as a construction material in different civil structures, write down the different types of rocks used in construction industry?
- 03 What are the different types of Glacier? How Glacier form? What type of glacier is present in Pakistan? Also describe various landforms produced by Glacial Erosion.
- 04 Discuss the collision of Indian plate with the Eurasian plate about 50 Ma and their subsequent convergence, which has produced a spectacular example of active continent-continent collision.
- 05 (A) What is Flood. How does Hydrograph helps predict floods. What was the effect of the Pakistan 2010 flood?
  - (B) What are the processes involved in Coastal Degradation? How do they affect the life of coastal dwellers?
- 06 (A) Discuss the various types of cements in sandstones. Explain the porosity enhancement and reducing processes during sandstone lithification.
  - (B) Enlist the Sediment deposits of the various transporting agents. Give a comparative analysis of the gravity and glacial processes of the Sediment transport.
- 07 Evaporates are popularly regarded as "Table Salt"; what importance does satlt (evaporate) play in the structural style of sedimentary basins.
- 08 Natural hazards can be classified into several broad categories, highlights there effects on Environment and society?

## **Combined Competitive Examination, 2021**

## **EUROPEAN HISTORY.**

Thursday the 24<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

Ques		 Iarks
	<u>SECTION-I</u> <u>Note: This Section carries Total 50 marks. Attempt any Three questions from thi</u> <u>Section by selecting Two questions of 20 marks and 01 question of 10 mark</u>	
01	Critically evaluate the importance of Napoleonic Wars in the European History.	20
02	"O Liberty! What crimes are committed in Thy name". (Madam Roland). Comment on this statement in the light of reign of Terror.	20
03	How does the Eastern Question relate politically, economically and diplomatically to the "Sick Man of Europe"?	20
04	What did necessitate the forming of Alliances and as a counter move, the Counter-Alliances in Europe in the last half of 19 <sup>th</sup> century and in the beginning of 20 <sup>th</sup> Century?	10
05	How did the Balkan War affect the Geo-politics of Europe?	10
	<u>SECTION-II</u> <u>Note: This Section carries Total 50 marks. Attempt any Three questions from thi</u> <u>Section by selecting Two questions of 20 marks and 01 question of 10 mark</u>	
06	Why the Versailles Settlement proved to be "A ceasefire for 20 years"? Comment argumentatively.	20
07	Was the rapid industrialization of the USSR worth the human cost of Stalinism?	20
08	Does the history of the period 1914-1960 offer any basis for optimism with regard to the prospects of World peace in the future?	20
09	Evaluate the achievements and drawbacks if any, of the European Common Market.	10
10	What is your personnel assessment that whether or nor the War Against Terrorism achieve the desired results?	10

## **Combined Competitive Examination, 2021**

## **HISTORY OF PAKISTAN & INDIA**

Thursday the 24<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

# **Note Attempt any Five questions. All questions carry equal marks.**

#### Question No.

- 01 Describe the Character of Mehmood of Ghazna according to the views of different Historians.
- 02 Give a comprehensive account of Mughal administration and its Mansabdari system, with special reference to Sindh.
- 03 "Second Battle of Tarain proved to be turning point for the establishment of Muslim Rule in Sub-continent." Discuss.
- 04 Under what circumstances the three Karnataka wars were fought? Why East India Company turned out to be successful?
- 05 Discuss main points of Montagu-Chelmsford Reforms.
- 06 Enumerate the fourteen points of Quaid-i-Azam and their importance in the history of Indo-Pak.
- 07 Elucidate various attempts at Constitution making from 1947 till 1956.
- 08 "The fall of Dhaka was a great tragedy in the History of Pakistan". How far do you agree with this statement?

# **Combined Competitive Examination, 2021**

## **Islamic Studies**

Saturday the 12<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

	Attempt any Five Questions. All questions carry equal marks.
Ouestion No.	

- 01 Muslims believe that the day of Day of Judgment will occur. Discuss its importance, reasons for its occurrence and effects of its belief on the believers' life.
- 02 Hajj is the finest institution of worship. How do you define the term Hajj? Discuss its simple procedures and benefits.
- 03 What is the concept of Jihad in Islam? Discuss its importance and kinds. Also distinguish between the Jihad and Qital (War).
- 04 Islam urges the good morality / conduct. Elaborate the ethical teachings of Islam in the light of Quran and Hadith.
- 05 Islam has given complete rights to women as compared to other religions and civilizations of the world. Discuss in detail.
- 06 Islam is the religion of peace and there is no room for extremism. Discuss in detail assessing present scenario.
- 07 Islam is the complete code of life. Discuss its Social, political, economic, judicial and administrative system.
- 08 State the Supreme honour bestowed on Holy Prophet (SAW) in the light of the Quran and Hadith. Also describe the importance of finality of Prophethood and the characteristics.

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## **Combined Competitive Examination, 2021**

## Muslim Law & Jurisprudence.

Saturday the  $26^{\text{th}}$  February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

Note: Attempt any Five questions. All questions carry equal marks.

#### Question No.

- 01 Qisas is said to be the way of maintaining equality and justice within the weaker and powerful Muslim population. How equality and justice can be achieved through enforcing equal measures of punishment with reference to Qisas?
- 02 Explain with historical examples, how Sunnah has helped Muslim jurists develop laws for making peaceful and sacred life in society.
- 03 How does protecting the rights of women serve to maintain gender equality in any society? Which specific Islamic school of thought solves the problems of women and protects their basic rights?
- 04 Explain the significance of Ijtihad (legal reasoning) as the key source of making Islamic laws. Do you believe Ijtihad can better way be used to find a solution to a problem if not found within the sources of the Quran and the Sunnah of the Holy Prophet?
- 05 Explain through Islamic Family Law how marriage can be made legal and why marriage is a necessary part of individual life in our society.
- 06 Why Maslahah Mursalah (Considerations of Public Interest) as part of the principles of Islamic Jurisprudence is given high importance for helping to explain how social and legal values are violated by mafsadah (evil) within a society?
- 07 Do you believe that Islamic Laws are equally enforced in Muslim nations? Explain the role of Islamic Schools of thought and their impact on making different laws for society.
- 08 Write a short and comprehensive note on any 02 of the following:
  - (i) Post-Divorce Maintenance
  - (ii) Child Custody
  - (iii) Islamic Law of Contract

## **Combined Competitive Examination, 2021**

## HISTORY OF USA.

Thursday the 24<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

\_\_\_\_\_

Note Attempt any Five questions. All questions carry equal marks.

#### 

- 01 Critically evaluate the formation and structure of the USA Constitution.
- 02 What do you know about the Water Gate Scandal? What lesson the American nation had learned from it?
- 03 Even though Great Britain and the United Sates of America fought a Revolutionary War in the 1770s and the War of 1812, how did the two powers come closer in the later parts of the nineteenth and the twentieth centuries? Elaborate.
- 04 Discuss in detail the causes and effects of the Great Depression on the people and society of the United States of America.
- 05 What were the causes which led the United States of America to enter the Second World War?
- 06 Critically evaluate the presidency of Franklin D. Roosevelt about his accomplishment and failure.
- 07 Evaluate the US invasion of Iraq in 2003. How far have the American policymakers remained successful in achieving their goals?
- 08 Write short notes on any Two of the following:
  - (i) George Washington.
  - (ii) The issue of slavery.
  - (iii) Monroe Doctrine.
  - (iv) Pakistan and USA Relations after 9/11.

## **Combined Competitive Examination, 2021**

## International Relations. (Paper-I)

Monday the 14<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

### Note Attempt any Five questions. All questions carry equal marks.

- 01 Analyze the relevance of realist theory in the post-Cold War Era. Do you agree that the traditional security aspect still dominates the inter-state relations in the post-Cold War Era?
- 02 What is the role of sanctions in foreign policy implementation? In which circumstances the sanctions produce the desired outcome and in some cases why does these fail to bring expected outcome?
- 03 Write short notes any Two of the following:
  - (i) Internationalism in practice.
  - (ii) Food security as a non-traditional security threat in IR.
  - (iii) Global health as a major issue in IR.
- 04 Analyze Pakistan-India relations by applying any one of the following theoretical Frameworks:
  - (A) Power-Realism; (B) Liberalism.
- 05 Do you think that nuclear weapons have diminished the prospects of a full-fledged war between Nuclear-Weapon-States (NWS)? To what extent, in your opinion limited wars are the only option left for the NWS?
- 06 Is 'Liberal democracy' a necessary precondition for 'development'? Can development be achieved in an authoritarian regime?
- 07 Critically examine the role of the UN in establishing peace in the world. In your opinion, what are the hurdles faced by the UN in achieving its objectives?
- 08 Is Globalization an irreversible process? Do states have the capacity to resist the forces of globalization or their survival and economic benefits require an unconditional submission?

## **Combined Competitive Examination, 2021**

### **International Relations.(Paper-II)**

Tuesday the 15<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

\_\_\_\_\_

Note Attempt any Five questions. All questions carry equal marks.

- 01 Analyze Pakistan-US relations in the aftermath of the 9/11 incident. How do you see the prospects for cooperation between Pakistan and the US particularly after the change of Government in Afghanistan?
- 02 Examine the importance of Central Asian region with particular reference to "New Great Game". Also identify and analyze major challenges/problems, which you think, may cause intra-region political and economic instability in Central Asia?
- 03 Arms race and Nuclear weapons thought characterized the cold war era yet both the power blocs' averted direct confrontation. Comment the role of 'Balance of Terror' in this aversion?
- 04 Analyze the growing Sino-US rivalry in the South-China Sea region.
- 05 The European powers are considered to have introduced state secularism through the Westphalian Nation State system, however the contemporary policies reflecting Islamophobia seems to be contradictory. What in your opinion needs to be done to strengthen the Westphalian system?
- 06 Terrorism is a relative term: 'One man's terrorism is another man's freedom fighting. Analyze various factors behind this relativity of the term, and in what ways terrorism be countered at the domestic, regional and international levels.
- 07 Differentiate between globalism and regionalism? Highlight the prospects and challenges of regionalism in South Asia in the aftermath of failure of SAARC.
- 08 Analyze the impact of India's action of revoking Article 370 and 35-A in its Constitution in August 2019 on the nature of the Kashmir conflict.

## Mercantile Law.

Saturday the 26<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

Note:	Attempt any Five questions. All questions carry equal marks.
Question No.	

- 01 Define Contract. Explain the contracts which need not to be performed.
- 02 Contract Act 1872 has expressly declared certain agreements as void. What are those arguments? Discuss in detail.
- 03 Discuss the importance of free consent in contracts. What do you think consent is said to be "not free" and what effect will such consent have on contract?
- 04 What do you understand by implied authority of a partner as an agent of the firm? Are there any acts which he can not do under his implied authority?
- 05 Describe the features of partnership and the legal status of a minor partner in a partnership.
- 06 Discuss in detail remedies for breach of a contract given to a seller against the buyer in the sale of Goods Act.
- 07 Distinguish negotiable instruments by statute and explain the liability of parties to these instruments.
- 08 Write a comprehensive note on establishment, functions, and powers of the competition commission of Pakistan.

## **ISLAMIC HISTORY & CULTURE.**

Thursday the 24<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

Ques	tion No.	Marks
	<u>SECTION-I</u> <u>Note: This Section carries Total 50 marks. Attempt any Three questions from</u> <u>Section by selecting Two questions of 20 marks and 01 question of 10 ma</u>	
01	How can you explain that "Islam is complete code of life" and what do you know about "Inherent" and "Voluntary" Injections of Islam? Explain with examples.	20
02	Explain the impact of Mithaq-e-Madina in that divergence living state of society of Medina and how it can be employed now? Discuss.	20
03	How were the rightly guided Caliph elected? To what extent their system of Government be regarded as democratic?	20
04	How did the Shura work in early period of Islam and how did this consultive body deteriorate under Ummayyad Caliphs?	10
05	Islamic concept of Vicegerency is different than western democracy. Comment and explain the salient features of Modern Islamic State.	10
	<u>SECTION-II</u> <u>Note: This Section carries Total 50 marks. Attempt any Three questions from</u> <u>Section by selecting Two questions of 20 marks and 01 question of 10 ma</u>	
06	Describe the ways and means through which a bridge may be made between the Muslim and the Western societies for Co-existence.	20
07	In the present era Muslim Ummah has all the resources but is suffering from disorganization and disunity. Analyze the reasons for this incoherence and suggest the measures to create harmony among Ummah.	20
08	Highlight the main reasons and causes of Ottomans Empire for their expansion and service towards Islam after the fall of Baghdad. And critically evaluate the Ottoman's administrative reforms with special reference to Tanzimat.	20 e
09	Estimate the colonial impact on Muslim society under European rule.	10
10	How did Islam penetrate in North Africa? Also give a brief introduction of North African Muslim Countries.	10

## **Combined Competitive Examination, 2021**

## LAW

Saturday the 26<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

## Note: Attempt any Five questions. All questions carry equal marks. Question No.

- 01 Discuss the stages of Criminal Procedure relating to the offences. Explain the rules which guide Police custody?
- 02 Explain the Burden of Proof and its standard when burden is on Prosecution. What is the "Reasonable Doubt"?
- 03 Discuss the significance of statement of accursed under Section 342 Cr.P.C recorded during trial. What are the effects of failure to comply with Section 342 Criminal Procedure Code, 1898?
- 04 Explain the Revisional Powers of the High Court and the Court of Session?
- 05 Write short notes on the following:
  - (i) Estoppel.
  - (ii) Res Judicata.
- 06 Discuss the Interpleader Suit. What are the basic rules of pleadings?
- 07 In time barred suits, merits need not to be gone into. Discuss?
- 08 Discuss the grounds on which Review lies under the Civil Procedure Code, 1908. Who can file review?

## **Combined Competitive Examination, 2021**

## **International Law.**

Saturday the 26<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

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Note: Attempt any Five questions. All questions carry equal marks. Question No.

- 01 Discuss in detail the implementation of IHL(International Humanitarian Law) in international armed conflict and what is meant by Omnes clause and its impact upon belligerent state being non party to Geneva Conventions?
- 02 What is meant by proportionate attack? Can the protected zones be targeted if those don't fulfill the ingredients provided under the Geneva conventions and agreements?
- 03 Write short note on the following:
  - (i) Spies & Mercenaries
  - (ii) Protecting Powers.
  - (iii) Prize Courts
  - (iv) ICRC.
- 04 What is the difference between neutrality and Quasi neutrality, when a state can be considered as neutralized state. Elaborate the rights and duties of neutral state.
- 05 What are the organs of an International Organization. Elaborate the constitution of an International Organization?
- 06 Describe International Environmental Law with reference to case between USA and Canada?
- 07 How National water differs from Territorial water and also discuss the classification of Rivers with detail account of the principles regarding International River ways?
- 08 What is meant by State Succession and how it differs from Succession of Government. Also give detailed note on transfer of rights and obligations in state succession to Treaties as well as in case of Public debt?

## **Combined Competitive Examination, 2021**

#### JOURNALISM AND MASS COMMUNICATION

Wednesday the 23<sup>rd</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

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#### Note:- <u>Attempt any Five Questions. All questions carry equal marks.</u>

# \_\_\_\_\_Question No.

- 01 Today Social Media has taken centre stage role in the daily life of the youth in our society; give your comments on this statement in the light of the Dependence Theory by Sandra Ball and Melvin Defleur.
- 02 Describe the Theory of Diffusion of Innovation in context of Globalization.
- 03 Suppose you have to publish a new radical magazine, what type of research would you conduct? Enlist strategies for successful gate-keeping.
- 04 Define Haberma's 'Public Sphere', and how capitalism has reduced access of information to the public.
- 05 'During the war period, it came to be recognized that the mobilization of man and mean was not sufficient; there must be mobilization of opinion', interpret the importance of above notion in the context of International Communication and Propaganda.
- <sup>06</sup> 'Media Laws in Pakistan are a hindrance in the way of free media', give your arguments for or against the above comment keeping in view the current laws and ordinances relating to electronic media in Pakistan.
- 07 Enumerate the historical development of Public Relations from traditional mechanism to modern era.
- 08 "The Development Support Communication is vital for under developed world because it provides ample opportunities to the less developed areas in term of raising the standard of living". Discuss.

## ZOOLOGY

Friday the 25<sup>th</sup> February, 2022. Time: 02:30 pm to 05: 30 pm

Maximum marks. 100

Note: Attempt any Five questions. All questions carry equal marks.

#### Question No.

- 01 Define Nutrition? Discuss the various modes of nutrition in protozoans.
- 02 What is canal system? Describe the significance of canal system in sponges.
- 03 Classify Platyhelminthes up to class level. Describe the distinguishing characters and medical importance of any one class.
- 04 Why are insects recognized as successful animals? Write a comprehensive note in favour of the above statement.
- 05 What is meant by Torsion and Distortion? Discuss the economic importance of Molluscs.
- 06 What is meant by Chambered Heart? Give a detailed account of double circuit plan of gaseous transport found in mammals with the help of a suitable illustration.
- 07 Birds are known as glorified reptiles. Explain this statement in terms of evolutionary prospects.
- 08 Write short notes on the followings:
  - (A) Write an essay on the mechanism of respiration in amphibians.
  - (B) Type of cell division that maintains the constant number of chromosomes in species.

## Philosophy.

Saturday the 26<sup>th</sup> February , 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

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#### Question No:

- 01 Elaborate social contract theory, optimize its pros and cons of social contract theory.
- 02 Describe an Ontological Argument and elaborate its classic versions?
- 03 Berkeley and Locke are classified as an "Empiricists" philosopher. Critically analyze the Berkeley's Theory of 'Esse is Percipi'.
- 04 Discuss in detail post-Deweyan pragmatism and explain why Lyotard abandoned the term 'Paganism' in favour of 'Postmodernism'?
- 05 Discuss rationalism and empiricism. Critically analyze either Descartes's dream conjecture or his evil demon conjecture.
- 06 Elaborate the concept of 'Khudi' and 'The reconstruction of religious thought in Islam' in accordance with philosophical thoughts of Iqbal.
- 07 Discuss in detail the concept of philosophy and margined the tools of philosophy.
- 08 A brief discussion on the following
  - (i) Utilitarianism.
  - (ii) Objections to Virtue Ethics.

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### Combined Competitive Examination, 2021

#### **English (Précis and Composition)**

Tuesday the 08<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm Maximum marks. 100

#### Note: Attempt all Questions.

#### 

Things change with the passage of time. There have been great many changes in the world. Most of thickly populated cities and towns that existed centuries ago are reduced to ruins and give a deserted look now. Cities and towns that were destroyed by natural calamities or razed to the ground by invaders long ago have again been populated thickly and become great trading centers and tourist places. Some of them afford breath-taking scenes and wonderful places ever seen on the earth. Small towns have been developed to be big cities and deserted places have become worth-seeing places. This all happens because change is a constant course of life.

It is but natural that man is attracted by innovations, discoveries, inventions, new creations and change in his life. That is why he has created wonderful things for his ease and comfort. Wonderful, magnificent and sky-high buildings reflect his tendency to high life, luxurious living and glorious and glamorous station of life. Gone are the days when man used to light oil lamp and cooked food by burning firewood and coal. Means of transport, communications and routes of conveyance have drastically changed. Modern inventions have brought wonderful change in our life-style and made our mobility frequent and speedy, and living amazingly convenient.

Some drastic and violent changes were brought by cruel and wicked invaders who not only plundered wealth and precious things, but also put tens of thousands of innocent people to sword. Genghis Khan and Hulagu Khan of Mongol stock are the worst examples of tyranny, scourge, mass killing of Muslims and hostility and ill-will towards Islam. They laid cities, crops and bazaars waste and set libraries and properties of Muslims on fire and reduced magnificent buildings to debris and dust and burnt thousands of precious and rare books to ashes. Their invasions came as wrath of God to teach transgressors a lesson.

Baghdad and Delhi are two glaring examples of brutality and maltreatment to innocent people whom attackers caught unawares and put them to sword mercilessly. However, things change with the passage of time. Desolate and destructed places were populated again. Life returned to these places. Markets bustling with life remained open for longer hours and sold wonderful things. Places of entertainment, show business, cinemas and theaters attracted more audience, spectators and visitors than ever. Culture, civilizations, old traditions and life were revived to afford the people an opportunity to enjoy exuberance, beauties of nature, insight, profound knowledge and innumerable worldly and divine blessings.

#### 02 Read the following passage carefully and answer the questions set below it.

We human beings are often too hasty to use our brains. Even in most important matters and critical junctures, we take a leap in the dark. We **merely** embark upon most important ventures without proper deliberation and planning. Sometimes we are least careful and forget a best proverb, "Slow and steady wins the race." Like many hit and run drivers, we commit blunders and hurt ourselves and other innocent people. It is because of certain reasons. First, like a blacksmith, we have so many irons in the fire. We are overtaken by worldly affairs, and the world is too much with us. We are too busy to look behind and to and fro. Like a reckless driver, who just pulls out to gain a few minutes out of the required time, we hasten to do several things in a short time. Ambitions have overtaken us, and we feel overcome, lost and hollow. Second, we think that we can make most of our time by hurrying from our schedule. Third, there are many things that we miscalculate or underestimate. They take their due time to materialize. Nature has its own course, and when we humans go against it, suffer deservedly. Nature has its own laws, order and principles for we people to abide by. In most cases, we go against them or ignore them **altogether.** Fourth, we are too impatient to wait and see what way the wind blows. We become too optimistic to know the hard realities of life and hidden dangers lying in wait in our way. In addition, we don't observe the things with clear head and observant eyes, and as a result, we are caught unawares in most of the things we do. Absence of proper deliberation leads us to limbo, chaos and confusion. Last, ignorance about dangers around, wishful thinking and building castles in the air come in our way and leave us in the lurch.

(i) In your own words mention some of the reasons why we face problems and failures in practical life? 04

(ii) Keeping in view the ideas mentioned in the passage, suggest some wise steps from your own 04 knowledge

for success and making our dreams come true.

(iii) In the above passage the words in Italics, 'overtaken' has been used twice, 'overcome' has been used once. 02

Are these words used subjectively or objectively? Write your answers separately for each word.

- (vi) Identify the underlined words(In bold) 'merely', 'altogether' as words / parts of speech. 02
- (vii) Define (give meanings) of the eight underlined proverbs, phrases, idioms and sentences in the 08 passage above.

#### 03 Write appropriate Synonyms for any Five of the following words: (A) 05

- (i) Apprehension Although (iv) Persuade (ii) Sniff (iii) (v) Annoy (vi) Symphony (vii) Decrepit (viii) Devastating **(B)** 
  - Write appropriate Antonyms for any Five of the following:
  - 05

05						
(i)	Commission	(ii)	Infer	(iii)	Alien	(iv)
Befriend						
(v)	Persuade	(vi)	Resolution	(vii)	Dormant	(viii)
Deceased						
(ix)	Procrastinate	(x)	Chaos			

#### 04 Do as directed: (A)

#### 20

(i) He is the tallest of all the other boys in the class.

(Change to positive degree keeping the sense of comparison intact).

- Despite of hard work, she failed the English once more again. (ii)
- (Rewrite the sentence omitting words that render it incorrect).
- We the founder of the nation's death anniversary regularly. (Insert (iii) appropriate verb)
  - \_\_\_\_\_ a long time since we \_\_\_\_\_\_ last. (Insert appropriate verbs) (iv) It has
  - Whats your name dear (Use punctuations marks) (v)
  - \_ manager of \_\_\_\_\_ firm are in their offices. (vi) \_ owner and \_
  - (Insert appropriate article(s)
  - My father left me the house \_\_\_\_his will. (Use appropriate preposition). (vii)
  - JUI-Fazal amid dismal PTI show in KPK Polls. (Use a phrasal verb and a (viii)

noun)

We listened eagerly, \_\_\_\_\_ he brought news of our families. (Use conjunctions) (ix) (x) We cultivate some pieces of arable land. (Write synonym and antonym of the

underlined word)

#### 05 Give meaning of any Five of the following pairs of words and use them in your sentences. 10

Use each word of the pair separately. (In all ten sentences)

Bolster (v), prop (v) (ii) Amateur, professional (iii) Sinecure, honorary (i) (iv) Alteration, altercation

(v) Deface, efface (vi) Moonlight, moonshine (vii) Martial (adj), marshal (N)

(viii) Croak (V), crook (N) (ix) Creak (V+N), creek (N) (x) Affluent, effluent.

#### 06 **Correct any Five of the following sentences:**

#### 10

- Children enjoy to play under the sun. (i)
- (ii) She watched me stealing from her purse and sneaking.
- The khan Liaquat Ali khan first prime minister of Pakistan was assassinated in the (iii) Liaquat bagh

Rawalpindi.

(iv) Above all you are my pal brother in law business partner and neighbour.

- (v) Last, but not the least I'd like to thank all the catering staff.
- (vi) After night came it started to rain a wall of our house fell and the roof of our room came

down.

(vii) Having arrived there I found door stood open and valuable stole.

## **Combined Competitive Examination, 2021**

## PHYSICS.

Thursday the 17<sup>th</sup> February, 2022.

Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

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#### Note <u>Attempt any Five questions. All questions carry equal marks.</u>

Question No.

- 01 (A) What are the mass and weight of (a) a 1420 lb snow mobile and (b) a 412 kg heat pump?
  - (B) What is the net force acting on a 3900 lb automobile accelerating at 13  $ft/s^2$ ?

- 02 (A) Explain the difference between Longitudinal and Transverse waves also derive the relation for the different modes of the standing waves.
  - (B) Standing wave is established in a 120 cm long string fixed at both ends. The string vibrates in four segments when driven at 120 Hz (i) determine the wavelength (ii) what is the fundamental frequency.
- 03 (A) Explain the working principle of Carnot Engine.
  - (B) Determine the average value of the Kinetic Energy of the particles of an ideal gas at  $0^{0}$ C and at  $50^{0}$ C.
- 04 (A) What is the center of mass and center of gravity? How to calculate the center of mass of the different shapes? Also discuss the conservation of momentum in the system of particles.
  - (B) Consider a rocket at rest in empty space. What must be its mass ratio (Ratio of initial to final mass) in order that after firing its engine the rockets speed is (i) Equal to the exhaust speed and (ii) Equal to twice the exhaust speed.
- 05 (A) Why does the normal Zeeman effect occurs only in the atoms with an even number of electrons.
  - (B) Calculate the Zeeman splitting for the  ${}^{3}S_{1/2}$  and  ${}^{2}P_{1/2}$  states of sodium in the external magnetic field of 2 T.
- 06 (A) Discuss the deBroglie hypothesis, and also explain the Davison-Germer experiment.
   (B) Explain the position-momentum and time-energy uncertainty principle.
- 07 (A) Describe and compare the operations of a centre-tapped full wave rectifier and bridge rectifier.
  - (B) Define ripple voltage and ripple factor. Calculate the ripple factor if  $V_{r(pp)} = 1.13$  V and  $V_{DC} = 14.3$  V.
- 08 (A) How the paramagnets, diamagnets and ferromagnets, are classified? Also discuss Ampere's Law in the magnetized materials.
  - (B) A current *I* flows down a long straight wire of radius R. If the wire is made of linear material with susceptibility and the current is distributed uniformly, what is the magnetic field at a distance r from the centre? Find all the bound currents. What is the net current flowing down the wire?

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## <u>SINDH PUBLIC SERVICE COMMISSION, HYDERABAD.</u> <u>Combined Competitive Examination, 2021</u>

## Political Science (Paper-I)

	lay the 14th February, 2022.: 02:00 pm to 05: 00 pmMaximum marks. 1	.00
NOTI	E: Attempt any 05 questions. All questions carry equal marks.	
Quest	ion No. <u>SECTION-A</u> <u>This Section carries Total 50 marks. Attempt any Three questions from this Section</u> selecting Two questions of 20 marks and 01 question of 10 marks.	=== arks <u>a by</u>
01	Explain in detail the Social Contract Theory by John Locke. Give your own understanding on this theory.	20
02	Give you analysis that why Aristotle did not like democracy as a good way to rule the people.	20
03	Rousseau is considered as an important philosopher whose philosophies enlightened the Europe. Discuss this in detail.	20
04	Write in detailed note on the political contributions of Al-Farabi.	10
05	What are the important points of an ideal form of Government by Imam Ghazali. Discuss its applicability in today's world. <b>SECTION-B</b>	10
Note:	<u>SECTION-B</u> This Section carries Total 50 marks. Attempt any Three questions from this Section selecting Two questions of 20 marks and 01 question of 10 marks.	<u>ı by</u>
06	Local Government system is an ideal way to transfer power to the people at grassroots level. Discuss this statement with special focus on the Local Government System of Pakistan.	20
07	Extremism and terrorism is one of the important threats to the society. What measures would you suggest to eradicate this menace from the society?	20
08	Women empowerment is considered as a key to success in the modern world. What measures should be taken to enhance the women empowerment particularly in the underdeveloped countries?	20
09	Freedom of speech should have limitations. Discuss this statement.	10
10	What are the important characteristics of Islamic Political Ideology?	10

## **Combined Competitive Examination, 2021.**

## Political Science (Paper-II)

Tuesday the 15<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

Marks

#### Question No.

#### <u>SECTION-A</u> <u>Note: This Section carries Total 30 marks. Attempt any Two questions from this</u> <u>Section each question carries 15 marks.</u>

- 01 Write a comprehensive note on the political system of France. **15** Compare the powers of President of France and Pakistan.
- 02 IMF is one of the factors behind inflation in Pakistan. Critically analyze the 15 statement.
- 03 South Asia possesses a great potential of development if Indo-Pakistan 15 relations improve. Explain this statement with special focus on the role of SAARC.
- 04 Write in detail the structure of the European Union and powers of its each entity. **15**

#### SECTION-B

# Note: This Section carries total 70 marks. Attempt any Four questions from this Section by selecting Three questions of 20 marks and 01 question of 10 marks.

- 05 Pakistan is facing political instability since its inception. Discuss this statement 20 in the light of role of Pakistan's political elites.
- 06 Do you agree that Sir Syed Ahmed Khan was the first leader to raise the 20 political awareness among Muslims of the Sub-continent? Explain his role in detail.
- 07 What are the impacts of weak economic development on the Foreign Policy **20** of Pakistan?
- 08 Due to low literacy rate, the voting behavior in Pakistan does not follow the **20** actual manifesto of the political parties. Elaborate the statement.
- 09 Discuss the political system of China. Is one party rule a reason of good 10 governance in China?
- 10 Do you agree that the Centre-Provincial relations have been deteriorated **10** after 18<sup>th</sup> amendment due to more provincial autonomy after the amendment?

# **Combined Competitive Examination, 2021**

## **PSYCHOLOGY.**

Wednesday the 23<sup>rd</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

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#### Note:- Attempt any Five Questions. All questions carry equal marks.

\_\_\_\_\_\_Question No.

- 01 Discuss in detail, "Our perceptions can also be affected by our beliefs, values, prejudices, expectations, and life experiences".
- 02 Define Personality? How does culture influence personality characteristics of an individual? Compare personality characteristics of the individuals of Eastern and Western cultures generally?
- 03 Discuss Cognitive, social and emotional development in childhood that affect adulthood.
- 04 Anxiety is the central core of mental disorders. Discuss.
- 05 Define Intelligence (IQ) and Emotional Intelligence (EQ)? Give your opinion that which type of intelligence, IQ or EQ is more effective to maintain and develop healthy interpersonal relationships?
- 06 What is Job Satisfaction? How does it influence work-motivation and organizational commitment of employees? Explain your answer with the help of suitable examples?
- 07 Which conflicts and challenges are faced by young teenagers or adolescents? Explain your views about the role of parents to raise mentally healthy and positive personality bearing children?
- 08 Compare and contrast the Authoritarian and Democratic Leadership style? Give your views that which one is more effective to deal with the issues and problems more effectively? State your answer by giving suitable daily life examples?

## SOCIOLOGY.

Wednesday the 23<sup>rd</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

Note:-	Attempt any Five Questions. All questions carry equal marks.
<b>Ouestion No.</b>	

- 01 How deviance is different from delinquent behavior? Explain various kinds of deviant behaviors with suitable examples from our society.
- 02 Point out the main causes of 'Child Labour' in Pakistan. How far the state policies have succeeded in its elimination?
- 03 What is Social Research? Describe its characteristics and importance.
- 04 Violence against women has become an epidemic in our society. What policy measures do you suggest to halt this trend?
- 05 Auguste Comte gives three evolutionary dimensions of society; Theologian, metaphysic and positivistic. Explain each with examples.
- 06 What is the role of institutions in society do they perform positive functions, or simply work in the interests of the powerful and against the powerless.
- 07 Discuss the structure and functions of Pakistani family with examples, keeping in view the changes occurring. How do you see the future of Pakistani Family System?
- 08 Write notes on any Two of the following:
  - (A) Social Stratification.
  - (B) Violent extremism in Pakistan.
  - (C) Security as a social construct.

### Combined Competitive Examination, 2021 STATISTICS.

Thursday the 17<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

		NOTE: Attempt any Five Questions.	
Que	stion No.		
01	(A)	<ul> <li>Write atleast two points that differentiate between the following terms:</li> <li>(i) Descriptive and Inferential Statistics.</li> <li>(ii) Statistic and Statistics.</li> <li>(iii) Qualitative and Quantitative data.</li> </ul>	06
	(B)	The following are the ages of 30 patients seen in the emergency room of a of a hospital on a Friday night. Construct a stem-and-leaf display and frequency distribution for the given data. 35 32 21 43 39 60 36 12 54 45 37 53 45 23 64 10 34 22 36 45 55 44 55 46 22 38 35 56 45 57 Compute Mean, median and mode from the frequency distribution and comment on your findings. Prepare Histogram and comment on the shape.	14 t
02	(A)	<ul> <li>Distinguish between the following terms.</li> <li>(i) Absolute measure of Dispersion and Relative measure of Dispersion.</li> <li>(ii) Measure of Skewness and Measure of Kurtosis.</li> <li>(iii) Moments about Origin and Moments about Mean.</li> </ul>	06
	(B) Σ	<ul> <li>Following are the values calculated from a frequency distribution.</li> <li>f = 1000, Σ fx = 26740, Σ fx<sup>2</sup> = 778700, Σ fx<sup>3</sup> = 24187750, Σ fx<sup>4</sup> = 792392187.</li> <li>Using the above values.</li> <li>(i) Find the first four moments about origin and then obtain first four Moments about mean using the appropriate formulae.</li> <li>(ii) Calculate coefficient of skewness and kurtosis and give comments or values.</li> </ul>	
03	(A)	Define the following terms:(i)Probability and its axioms(ii)Mutually and Non-Mutually Exclusive Events.(iii)Dependent and Independent Events.	06
	(B)	In an experiment to study the relationship of hypertension and smoking habits, the following data are collected for 180 individuals:	14
		Experiment Non-Smokers Moderate Heavy	

Experiment	Non-Smokers	Moderate Smokers	Heavy Smokers.
Hypertension	31	46	35
No Hypertension	38	16	14

If one of these individuals is selected at random, find the probability that the person is:

- (i) A moderate smoker.
- (ii) A heavy smoker and experiencing hypertension.
- (iii) Experiencing hypertension given that the person is Non-smoker.

04 (A) Given a Simple Linear Regression model Y on X,  $Y = \alpha + \beta X + \varepsilon$ 10 Apply method of least square to obtain the estimate of regression coefficients  $\alpha$  and  $\beta$ . (B) What do you understand by Multiple correlation coefficient and how it 10 differs from partial correlation coefficient. Explain the concept by assuming one dependent variable and two independent variables. 05 (A) Differentiate between the probability sampling and non-probability sampling. 08 Define any two sampling methods of each and explain briefly the procedure of sampling by giving example. (B) In a private library, the books are kept on 150 shelves of similar size. The 12 numbers of books on 15 shelves picked at random were found to be 38, 33, 35, 43, 41, 28, 32, 39, 40, 32, 36, 30, 31, 38 and 35. Estimate the average number of books in the library and obtain approximately 95% confidence interval for it. 06 (A) What is 'Estimation'. Also define the types of estimation. Describe briefly 08 the properties of a good estimate. (B) A simple random sample of n=40 college students were interviewed to 12 determine the proportion of students in favour of converting from the semester to the quarter system. Twenty five of the students answered affirmatively. Estimate the proportion of students on campus in favour of the change (assume N=2000). Place a bound on the error of estimation. 07 An aircraft designer has theoretical evidence that painting the airplane reduces 10 (A) its specified power and flap setting. He tests six consecutive airplanes from the assembly line before and after painting and obtains the top speed (in mph).

Airplane	1	2	3	4	5	6
Painted	286	285	279	283	281	286
Not Painted	289	286	283	288	283	289

Do the data support the designer theory using paired t test? Use 5% level of significance.

(B) A criminologist conducted a survey to determine whether the incidence of certain types of crime varied from one part of a large city to another. The following table shows the number of crime committed in four areas of the city during the past year.
 District Assault Burglary Homocide.

Assault	Dui giai y	Homociue
162	118	451
310	196	996
258	193	458
280	175	390
	162 310 258	162118310196258193

Can we conclude from these data at the 0.01 level of significance that the occurrence of these types of crime is dependent on the city district?

- 08 (A) Describe the important functions of Department of Statistics, State Bank of 10 Pakistan. Also give some of its major publications.
  - (B) Write short note on any Two of the following:

10

10

- (i) Sindh Bureau of Statistics (SBS)
- (ii) Population Census Organization (PCO)
- (iii) Agriculture Census Organization (ACO)

## **Combined Competitive Examination, 2021**

## PUBLIC ADMINISTRATION.

Wednesday the 16<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

Note Attempt any Five questions. All questions carry equal marks.

#### Question No.

- 01 It has been said, "Administration is most obvious part of Government in action; it is the executive, the operative, the most visible side of Government and is of course as old as Government itself". Discuss the above statement in the light of theory and practice of Public Administration.
- 02 Woodrow Wilson is considered as a father of Public Administration. Discuss the scope of Public Administration in the light of statement given by former US President.
- Discuss the contribution of the following authors:
  (A) Elton Mayo
  (B) Herbert Simon
  (C) Chester I.Bernard
  (D) Fayolism Approach.
- 04 Keeping in view Taylorism approach how we improve industrial efficiency and suggest us how and where this theory is applicable.
- 05 What structural changes would you suggest to change the orientation of public personnel management in Pakistan from "Ruling Elite" to "Serving Civil Servant" to achieve the objectives of poverty alleviation and development.
- 06 Discuss various styles of leadership. What styles of leader you prefer? Justify your preference.
- 07 Explain in detail the following:
  - (i) Job enrichment (ii) Job enlargement (iii) Job description.
  - (iv) Job specification
- 08 What do you understand by budget? What are its types? What are its pre-requisites to be successful? How collection of taxes in Pakistan can be improved? Suggest mechanism which is more reliable. How informal and undocumented economy can come under tax network?

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# **Combined Competitive Examination, 2021**

### TOWN PLANNING & URBAN MANAGEMENT.

Wednesday the 16<sup>th</sup> February, 2022. Time: 02:00 pm to 05: 00 pm

Maximum marks. 100

Note Attempt any Five questions. All questions carry equal marks.

#### Question No.

- 01 (A) Describe the history and origins of Town Planning of Harappan cities.
  - (B) Define Zoning. Also describe salient features of each Zoning category.
- 02 (A) What is Land use Planning? Enlist Land use classification. Also state the land use distribution for small schemes.
  - (B) Draw a diagram of Spatial Structure of Islamic City.
- 03 Define the notion of Central Place Theory. Write in detail Evolution of hierarchy of Central Places in the context of various service activities.
- 04 What is the importance of historic human settlements? How these are helpful for the town planning professionals.
- 05 What is Transportation Planning? Discuss Four-step Transportation Planning Process.
- 06 How Urban and Rural areas are legally defined in the Province of Sindh? Briefly discuss the environmental problem of key cities of Sindh.
- 07 Why urban development plans fail in Pakistan? Discuss the role information system in the successful implementation of such plans in future.
- 08 Write short notes on the following:
  - (i) Formal and functional land use in cities.
  - (ii) Problems and prospects of Intelligent Transport System in cities of Pakistan.
  - (iii) Role of cities in promoting GDP of a country.

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### **COMBINED COMPETITIVE EXAMINATION, 2021**

### **APPLIED MATHEMATICS.**

Thursday the 17<sup>th</sup> February, 2022 Time. 02:00 pm to 05:00 pm

100

Maximum marks. 100

		Note: Attepmt any Five Questions.	
Ques	stion No	<u>.</u>	Marks.
01	(A)	Let F be a differentiable vector field, and f a differentiable scaler field, defined on an open subset $U \subset \mathbb{R}^n$ .	
4	(i)	Define the gradient $\nabla f$ . If n = 3 and f(x, y, z) = x <sup>2</sup> ycosz, calculate $\nabla f$ at the point (2, -1,0)	03
	(ii)	Define the divergence $\nabla$ . F. If n = 3 and F(x, y, z) = $2xzi + 2yzj - z^2k$ , find $\nabla$ . F at the point (2, 3, 1)	03
	(iii)	Let $n = 3$ . Define the curl $\nabla x F$ . If F is the vector field defined in (ii), calculate $\nabla x F$ at the point (2, 3, 1)	04
	(B)	Show that the following 3 – deminsional vector field F is irrotational. $F(x, y, z) = (2y - \cos z, 2x - \cos z, 2z + (x + y)\sin z).$ Construct a scalar potential $\phi$ for F.	10
02	(A)	A particle is constrained to move in the $x - y$ plane such that x(t) = A coswt y(t) = A sinwt What is the speed of the particle? What is the acceleration of this particle? Find unit vectors that are tangent and normal to the curve that describes the particle's path.	10
	(B)	Consider a driven plane pendulum. The pendulum is attached to an oscillating support that oscillates at frequency w with amplitude h. Find the equation of motion for the angle the pendulum makes with the vertical.	10
03	Suppo	be we are given the following differential equation: $y'' + \frac{1}{x}y' + \left(1 - \frac{1}{4x^2}\right)y = 0$	
	(A)	What are the singular points of this equation?	05
	(B)	Show that one solution to the equation is $y = x^{-1/2} sinx$	05
	(C)	Find a second, linearly independent solution to this equation using the method of Reduction of Order.	10

**P.T.O.** 



04	(A)	Use Simpson's rule with $n = 4$ to estimate $tan^{-1}$ (2).	05	10
	(B)	Derive the following Trapezoidal rule for approximating $\int_a^b f(x)dx$ . $\int_a^b f(x)dx = \frac{h}{2}[f(a) + f(b)] - \frac{h^3}{12}f''(\epsilon)$ , where $h = b - a$	05	
	(C).	Usue Euler's method with step size 0.2 to estimate $y(0.4)$ where $y(x)$ is the solution to the initial value problem. $y' = 10(x + y)^2$ , $y(0) = 0$	10	
05	(A) Le	et $A = \begin{pmatrix} 1 & 2 & -2 \\ 1 & 1 & 1 \\ 2 & 2 & 1 \end{pmatrix}$ decide whether Jacobi method converge to the solution of AX =b.	10	
	(B)	Prove that the Newton-Raphson method is quadratically convergent.	10	
06	(A)	Find the Fourier series of the Identity function $f(x) = x, 0 < x < 2\pi$ .	10	
	(B)	Expand $x(\pi - x)$ in half-range Sin series when $0 < x < \pi$ .	10	<b>A</b> .
07	(A)	Solve $ydx - (y - 3x - 3)dy = 0$	10	
	<b>(B)</b>	Find the Orthogonal Trajectories of the family of rectangular hyperbolas $xy = c$ .	10	
08	(A)	A particle is moving along the parabola $x^2 = 4ay$ , with constant speed v. Determine the tangential and the normal components of its acceleration when it reaches the point whose abscissa is $\sqrt{5a}$ .	10	
	(B)	Let A, B and C are three vectors. Then prove that: A x (B x C) = $(A.C)B - (A.B)C$ .	10	

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