

SAMPLE PAPER

Subject Specialist

MATH

(Academics/QAI)

ENGLISH

Choose the best option, from the given choices below each sentence.

1. She said that her friends _____ her.

- A) betrays
- B) betraying
- C) have betrayed
- D) had betrayed

Identify the part of the speech of the underlined word of the given sentence.

2. The zookeeper quietly set free all the wild animals.

- A) noun
- B) preposition
- C) adjective
- D) verb

Each of the following questions consists of a sentence with all or part of the sentence underlined. Following the requirements of standard written English, select (A) if the original is best; otherwise choose the best phrase from the options.

3. What are needed are not large houses but small cottages.

- A) are
- B) were
- C) was
- D) is
- E) had

Choose the best opposite of the following words.

4. DETERIORATE:

- A) deaden
- B) trust
- C) rectify
- D) drain

Choose the best same meaning of the following words.

5. DESTINY:

- A) real
- B) plan
- C) fate
- D) wish

Read the following passage to answer the given question (4)

As I walk, alone and lonely, on the streets around my small apartment, I feel a bond with virtually everyone I see: the elderly man struggling to walk up the stoop (a man who finds even the most basic tasks challenging), the child playing with a soccer ball (a blithe boy, experiencing easy joy), and even the wrinkled woman stationed behind the cash register of the convenience store, where she seems to be eight days a week (a hard worker facing a daily struggle to make a living). My own identity feels lost, wrapped up in the lives of others. And yet I realize that as I struggle to identify myself, I feel closer to the world around me and less alone.

6. The author mentions that the woman in the convenience store seems to be there "eight days a week" in order to:

- A) suggest that she makes her home at the store
- B) indicate that she is merely part of the author's imagination
- C) provide an anecdote about the challenges of accomplishing basic tasks
- D) argue that convenience store workers have easy lives
- E) highlight how hard she must work to earn a living

General Ability

7. Which country is currently is the largest source of foreign direct investment (FDI) in Pakistan?
- A) United States
 - B) China
 - C) United Arab Emirates
 - D) Saudi Arabia
8. Nobel Prize is awarded for:
- A) Physiology or Medicine
 - B) Physics and Chemistry
 - C) Literature, Peace and Economics
 - D) all of the above
9. Person below 18 years who is unable to sue or be sued without representation is called a:
- A) Juvenile
 - B) Minor
 - C) Immature
 - D) Child
10. All of the following countries possess veto-power EXCEPT:
- A) China
 - B) France
 - C) United States
 - D) Russia
 - E) Canada
11. The concept of the "Global South" in international relations primarily refers to:
- A) All countries located geographically south of the equator.
 - B) A coalition of states formerly part of the Non-Aligned Movement.
 - C) A term for countries characterized by developing economies, lower per capita income, and a history of colonization or peripheral status.
 - D) An official political and economic bloc with a permanent secretariat, similar to the United Nations
12. Which of the following is referred by per capita?
- A) By head
 - B) By law
 - C) By the way
 - D) By legal means
13. In Pakistan summer season rain fall is caused by:
- A) Due to heat
 - B) Due to cold wind
 - C) Due to storm
 - D) Due to monsoon
14. Which of the following province is the smallest according to population?
- A) Punjab
 - B) Sindh
 - C) Baluchistan
 - D) KPK

QUANTITATIVE

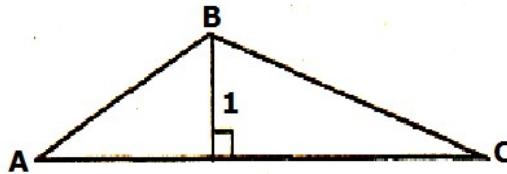
15. If the average (arithmetic means) of a and -5 is 10 , then $a =$

- A) 25
- B) 15
- C) 5
- D) -5

16. The ratio between the ages of Ahmad and Ali at present is $2 : 3$. After three years, the ratio of their ages will be $3 : 4$. Find the present age of Ahmad in years.

- A) 3
- B) 6
- C) 9
- D) 15

17. If $AC = 4$, what is the area of $\triangle ABC$ below?



- A) $\frac{1}{2}$
- B) 2
- C) 4
- D) 8

18. Of the twenty people who won the prize, 8 have come forward to claim the prize. What percent of the people have not yet appeared?

- A) 20%
- B) 30%
- C) 40%
- D) 60%

19. There are enough candies in a bag to give 12 candies to each of 20 children, with no candies left over. If 5 children do not want any candies, how many candies can be given to each of others?

- A) 12
- B) 14
- C) 16
- D) 18
- E) 20

20. A boy saves 18 Rupees in 8 weeks. He continues to save at the same rate. How many weeks will it take him to save 81 rupees?

- A) 13
- B) 36
- C) 40
- D) 71

COMPUTERS

21. Copy command in a spreadsheet:

- A) Never copies formulae
- B) Copies formulae treating them like labels
- C) Copies only those formula with addresses of one type
- D) Copies formula giving a special treatment in order to handle different types of addresses

22. You are sending a project proposal to a senior manager, Mr. X, whom you have not met before. Which of the following is the most appropriate subject line for your email?

- A) Proposal
- B) Project Name: Proposal for Marketing Initiative
- C) Hey Mr. X– Please check this out when you get a sec
- D) Important! Read Immediately!

23. The arrangement of keys on a modern keyboard is called:

- A) Phonetic arrangement
- B) Qwerty arrangement
- C) Dvorak arrangement
- D) Olympia arrangement

24. In MS Word Ctrl + G is used for:

- A) Print
- B) Undo
- C) Go To
- D) Find and Replace

25. Values, entered in a cell, are always:

- A) Left aligned
- B) Right aligned
- C) Centered
- D) Not aligned at all

26. The short-cut key for print dialogue box is:

- A) Ctrl + N
- B) Alt + I
- C) Ctrl + X
- D) Ctrl + H
- E) Ctrl + P

Punjab Education Foundation Rules & Regulations & Estacode

27. What is the primary legislative document that governs the Punjab Education Foundation (PEF)?

- A) The Punjab Education Foundation Act 2004
- B) PEF Policy 2010
- C) PEF Charter of Operations
- D) Punjab Education Sector Reform Program

28. The PEF's financial operations, including budgeting, accounting, and auditing, are primarily guided by:

- A) Federal Board of Revenue Rules
- B) PEF's own Financial Rules & Regulations
- C) World Bank Guidelines
- D) Punjab Private Schools Regulatory Authority Rules

29. A school partnered with PEF can have its agreement terminated for:

- A) Consistently maintaining high academic results.
- B) Submitting accurate and timely reports.
- C) Participating in PEF's teacher training programs.
- D) Charging unauthorized fees from PEF-sponsored students.

30. According to the Act, a "civil servant" does NOT include:

- A) A person employed on a work-charged basis
- B) A person on deputation from the Federation
- C) A member of a civil service of the province
- D) A person holding a civil post in connection with the affairs of the Province

31. A civil servant shall retire from service on the completion of:

- A) The fifty-fifth year of his age
- B) The fifty-eighth year of his age
- C) The sixtieth year of his age
- D) The sixty-second year of his age

32. What percentage of posts is reserved for women in recruitment?

- A) 2%
- B) 5%
- C) 15%
- D) 20%

33. The financial support provided by PEF to its partner schools under programs like FAS is primarily intended to cover:

- A) School expansion and construction of new buildings.
- B) The students' tuition fees and related educational costs.
- C) Political campaigns.
- D) Teachers' personal travel expenses.

34. The Public Procurement Regulatory Authority (PPRA) Rules, 2014, apply to:

- A) All private companies in Pakistan.**
- B) All public sector organizations and entities defined as "Procuring Agencies."**
- C) Only federal government ministries**
- D) Only projects funded by international lenders.**

35. A 'Technical Proposal' is primarily used in which method of procurement?

- A) Open Competitive Bidding**
- B) Direct Contracting**
- C) Two-Stage Bidding**
- D) Request for Quotations (RFQ)**

Professional/Post/ Qualification Related Questions

36. The "Parho Punjab, Barho Punjab" (Read Punjab, Grow Punjab) initiative primarily focuses on:
- A) Building new school buildings
 - B) Increasing teacher salaries
 - C) Improving student learning outcomes in literacy and numeracy
 - D) Providing free tablets to all students
37. The "KhidmatCentres" in schools provide:
- A) Career counseling and educational services to students
 - B) Banking services
 - C) Medical facilities for teachers
 - D) Religious education
38. The SNC places special emphasis on the teachings and philosophy of:
- A) Western philosophers
 - B) Allama Muhammad Iqbal and Quaid-e-Azam Muhammad Ali Jinnah
 - C) International leaders
 - D) Modern scientists only
39. The SNC aims to reduce the divide between different education systems by:
- A) Closing private schools
 - B) Eliminating madrasa education
 - C) Teaching only in English
 - D) Having common curriculum standards and competencies
40. What is the primary goal of PEF's Foundation Assisted Schools (FAS) program?
- A) To provide higher education scholarships.
 - B) To establish new government schools in rural areas.
 - C) To support low-cost private schools for imparting quality education to the poorest students.
 - D) To offer technical and vocational training to adults.
41. Early Childhood Education (ECE) in Pakistan is formally intended for which age group?
- A) 3 to 5 years
 - B) 4 to 6 years
 - C) 5 to 7 years
 - D) 6 to 8 years
42. What is the main objective of PEF's "Continuous Professional Development (CPD)" program?
- A) To construct new school buildings.
 - B) To provide monthly stipends to students.
 - C) To enhance the teaching skills and pedagogical knowledge of teachers in partner schools.
 - D) To develop a new national curriculum.

43. Which of the following is the highest level of cognition in Bloom's taxonomy?

- A) analysis
- B) synthesis
- C) comprehension
- D) evaluation

44. The best instructional method for the teaching of science to early graders is:

- A) Traditional method
- B) Demonstration method
- C) Group discussion method
- D) Activity method

45. Every integral domain can be embedded in field of:

- A) Ideals
- B) Prime ideals
- C) Quotients
- D) Division ring

46. The value of $\int_0^{\infty} e^{-t} t^{z-1} dt = ?$

- A) 1
- B) 0
- C) ∞
- D) None of the above

47. A group is called abelian if _____ law holds in G.

- A) associative
- B) commutative
- C) distributive
- D) none of the above

48. For any complex number Z, the minimum value of $|Z| + |Z - 1|$ is:

- A) 1
- B) 0
- C) $\frac{1}{2}$
- D) $\frac{3}{2}$

49. If the matrix equation $AX=O$, where A is an $n \times n$ matrix, has a non-trivial solution, then:

- A) Matrix A is non-singular
- B) Determinant A is non-zero
- C) None of the above
- D) Determinant A is zero

50. A L_2 function is:

- A) A function f , which is L_2 function and bounded
- B) A function f , which is L_2 function only
- C) A function f , which is bounded only
- D) None of the above

51. Let G be a group and H a subgroup of G . The index of H in G , denoted $[G:H]$, is defined as:

- A) The order of the group G divided by the order of H .
- B) The number of distinct conjugate subgroups of H in G .
- C) The number of distinct left (or right) cosets of H in G .
- D) The size of the normalizer of H in G .

ESSAY

Organize, develop and express your ideas on the following topic by deploying elements of standard written English. (15 Marks)

"The Role of Public-Private Partnerships in Achieving Universal Quality Education in Punjab"

ANSWER KEYS

| Q #. | Right Choice | Q #. | Right Choice |
|------|--------------|------|--------------|
| 1 | D | 29 | D |
| 2 | C | 30 | A |
| 3 | D | 31 | C |
| 4 | C | 32 | C |
| 5 | C | 33 | B |
| 6 | E | 34 | B |
| 7 | B | 35 | C |
| 8 | D | 36 | C |
| 9 | B | 37 | A |
| 10 | E | 38 | B |
| 11 | C | 39 | D |
| 12 | A | 40 | C |
| 13 | D | 41 | A |
| 14 | C | 42 | C |
| 15 | A | 43 | D |
| 16 | B | 44 | B |
| 17 | B | 45 | C |
| 18 | D | 46 | A |
| 19 | C | 47 | B |
| 20 | B | 48 | A |
| 21 | D | 49 | D |
| 22 | B | 50 | A |
| 23 | B | 51 | C |
| 24 | C | | |
| 25 | B | | |
| 26 | E | | |
| 27 | A | | |
| 28 | B | | |