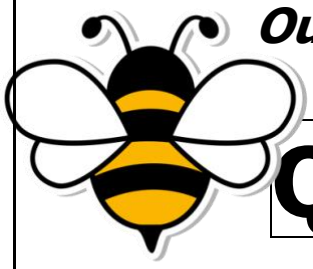


SiL x WLC



Our motto: "Practice Makes Improvement"

QUESTION BOOKLET

PAPER: YOUNG SCHOLAR TOURNAMENT (SET A)

Level: Senior Scholars (aged 15-17)

DURATION OF TEST: 60 MINS

PLEASE READ THE FOLLOWING INSTRUCTIONS:

1.) THIS TEST COVERS THE MAIN ASPECTS OF GENERAL KNOWLEDGE, ENGLISH, MATHS, SCIENCE, VERBAL & NON-VERBAL REASONING CORRESPONDING TO THE LEVEL STATED ABOVE.

2.) EACH QUESTION/SUB-QUESTION CARRIES 1 MARK, THE FULL SCORE OF THE TEST IS 80. TRY TO ANSWER ALL THE QUESTIONS WITHIN THE GIVEN TIME.

3.) YOU CANNOT ASK THE INVIGILATOR TO PROVIDE ANY HELP WITH THE ANSWERS.



Section 1: General Knowledge, History, World News *(10 marks)*

1. A policy benefits people today but leaves substantial costs for future generations. Which concept is most directly involved?

A) Short-term memory B) Seasonal migration C) Intergenerational equity
D) Alphabetical ordering E) Exchange-rate parity

2. Which of the following best describes the primary domestic effect of an import tariff?

A) It raises the domestic price of the good, benefiting domestic consumers.
B) It lowers the domestic price of the good, benefiting domestic producers.
C) It lowers the domestic price of the good, benefiting foreign exporters.
D) It has no effect on domestic prices but directly decreases government revenue.
E) It raises the domestic price of the good, benefiting domestic producers.

3. A newspaper reports a poll of its own website visitors as "what the whole country thinks". What is the main weakness?

A) Visitors must have answered dishonestly. B) National opinion can never be estimated.
C) Online responses can't be counted accurately. D) Large samples always are false.
E) he respondents may not represent the wider population.

4. The Meiji Restoration in the 19th century rapidly modernised and industrialized which nation?

A) China B) Russia C) Ottoman Empire D) Vietnam E) Japan

5. A government implements a policy requiring all AI-generated political advertisements to carry a mandatory disclosure label. This regulatory measure is primarily classified under which policy domain?

A) Intellectual property protection B) Digital infrastructure development
C) Biosecurity and data privacy D) Information transparency and integrity
E) Telecommunications resource allocation

6. If every authorised user in the network has a dynamic token, and user Alex has a static password instead of a dynamic token, then…

A) Alex is a hacker attempting a breach. B) Alex isn't an authorised user in that network.
C) The network's security has been completely compromised.
D) Everyone with a dynamic token has full administrator access.
E) All users with static passwords are automatically blocked.

7. Network effects occur when a service becomes more valuable as…

A) all users become identical B) its price always rises C) fewer connections exist
D) the set-up cost becomes lower E) more people use it

8. The only remaining Seven Wonders of the Ancient World is located in:

A) Egypt B) Iraq C) Greece D) Turkey E) Italy

9. The Industrial Revolution contributed to globalisation partly by…

A) reducing the disparity between countries B) eliminating cities

C) increasing production and transport capacity D) ending long-distance trade

E) preventing migration

10. Which is the smallest country in the world by both land area and population?

A) Nauru B) Monaco C) San Marino D) Tuvalu E) Vatican City

Section 2: English, Reading, Language Use *(25 marks)*

The Borrowed Voice

Mara had agreed to record a short audio guide for a local museum exhibition. The display concerned an abandoned railway station on the edge of the town, once busy with passengers, parcels and freight but now empty for decades. Its centrepiece was a letter written by a porter to his sister in 1912. The curator handed Mara a transcript, then pointed to a sentence in square brackets.

"The paper is torn there," she explained. "Those words are our best reconstruction." The original letter lay under glass nearby. A jagged tear ran through several lines, and although researchers had compared the surviving fragments with other letters and station records, nobody could be certain exactly what had once been written.

At rehearsal, Mara read the reconstructed sentence with particular warmth. It explained why the porter had stayed at the station despite a better-paid offer elsewhere. According to the reconstruction, he had remained because he felt responsible for the families and regular passengers who relied on him. The sentence gave the letter an emotional centre, turning the porter from a name in an old record into someone who appeared thoughtful and loyal.

Afterwards, a volunteer remarked that it made the porter seem wonderfully loyal. Mara smiled at first, then looked back at the brackets. The volunteer's comment stayed with her. Without the reconstructed words, the surviving letter revealed much less about the porter's reasons. Perhaps the reconstruction was very close to the original. Yet "very close" was not the same as certain.

The production team proposed removing the interruption from the recording. Visitors would hear a seamless account, while the printed transcript would identify the uncertain words. It was a practical suggestion, and Mara initially welcomed it. Pausing to explain every uncertainty might make the guide sound awkward.

Then she imagined a visitor listening without reading. Perhaps the recording would later be placed online, where listeners from other countries might never see the original letter at all. The most memorable motive in the story would sound no less secure than the date or destination written clearly on the page.

She did not want to replace the guide with a lecture about damaged paper. Nor did she think a museum could avoid interpretation: selecting a letter, translating handwriting and deciding what to display all involved choices. Her concern was narrower. The recording risked lending the authority of a surviving voice to words that had not survived.

There was something about sound that made the problem sharper. A bracket on a page could signal uncertainty at a glance. A spoken sentence, however, arrived smoothly and disappeared almost immediately. If Mara read the reconstructed words in exactly the same tone as the surviving ones, the distinction would vanish.

At the next rehearsal, the curator introduced the uncertain sentence herself:

"The missing lines may have said something like this."

Mara then read it.

The shift briefly broke the illusion of hearing an uninterrupted letter. Some colleagues found it awkward. One argued that visitors came for a story, not a catalogue of doubts. Another worried that too many qualifications might make the museum seem unsure of its own research.

Mara understood the objection. The exhibition was meant to bring the station back to life, not bury visitors beneath academic footnotes. Yet she also wondered whether confidence itself could become misleading when technology made an uncertain story sound seamless, polished and complete.

The question became more important when the museum decided to place the audio guide online. A digital company offered to create versions in several languages using automatic translation and synthetic narration. Suddenly, a sentence reconstructed in one small town could travel far beyond the gallery.

If an uncertain sentence were translated, re-recorded and repeated across several platforms, its origin could become harder to trace. The words might travel much further than the warning attached to them.

The team therefore decided that every version of the recording would preserve the same brief introduction before the reconstruction.

On opening day, a young visitor asked why the museum could not simply discover the missing words.

The curator explained what researchers had checked: old records, similar phrases in the porter's other letters, the visible remains of letters near the tear and even the amount of space the missing sentence would have occupied. She also explained what those checks could not recover. No scanner, database or computer program could guarantee words that the paper itself no longer contained.

Mara watched the visitor return to the torn page. Instead of appearing disappointed, he leaned closer to the glass and began asking questions.

The pause had not ended the story; it had made room for a question. Mara could not know whether everyone would respond that way. Some visitors would probably prefer the smoother version. Others might barely notice the warning. For the first time, however, she felt that the recording allowed the listener to notice where its confidence stopped.

11. Which statement best describes Mara's position on interpretation?

A) It is unavoidable, but its uncertainties should not be concealed.
B) It matters only when an exhibit concerns famous people.
C) It should be eliminated from every museum display.
D) It makes all historical conclusions equally unreliable.
E) It is legitimate only when undertaken by performers.

12. In context, 'seamless' most nearly means:

A) written in a different language.
B) arranged in reverse chronological order.
C) supported by several independent letters.
D) spoken too quietly to hear.
E) apparently continuous, with no noticeable interruption.

13. Which tension lies at the heart of the passage?

A) Old technology versus new technology
B) Local history versus international history
C) Entertainment versus education
D) Museums versus universities
E) Narrative clarity versus intellectual honesty

14. The final phrase "where its confidence stopped" personifies the recording in order to emphasise:

A) the failure of the recording equipment.
B) the museum's lack of confidence in its visitors.
C) Mara's uncertainty about her speaking ability.
D) the boundary between what can be presented confidently and what remains speculative.
E) the physical point at which the audio guide ends.

15. "The pause...made room for a question" suggests that doubt can:

A) replace evidence
B) confuse visitors
C) end a story
D) deepen engagement
E) weaken learning

16. If the guide were translated globally, what should remain clear?

A) The audio speed
B) The museum layout
C) The uncertain parts
D) The sentence length
E) The original accent

17. Why does the volunteer's comment trouble Mara?

A) It confuses the timeline.
B) It criticises Mara's voice.
C) It proves the sentence is false.
D) It embarrasses the curator.
E) It shows the sentence shapes the porter's character.

18. What does the passage suggest about technology?

A) It makes museums unnecessary.
B) Presentation affects trust.
C) It removes uncertainty.
D) It weakens all evidence.
E) It always improves accuracy.

19. The colleague who argues that visitors come "for a story, not a catalogue of doubts" is principally defending:

A) accuracy over entertainment. B) written evidence over audio technology.
C) academic research over public history. D) international access over local interpretation.
E) narrative fluency over repeated expressions of uncertainty.

20. "Surviving voice" suggests:

A) the letter is complete. B) Mara copies his accent.
C) the museum has audio. D) the letter represents the porter.
E) the porter is alive.

"***The trial that almost proved too much***"

In this passage you have to choose the **best word**, or **group of words**, to complete each numbered line so that it makes sense and is written in correct English. Choose the **best** answer and mark its letter on your answer sheet.

A school tested a new revision platform. By the time the final survey was distributed, 120 pupils _____**21**_____ the four-week trial. The organisers compared their results with those of pupils who had not used the platform.

A) had completing B) have completed C) will complete
D) completing E) had completed

_____**22**_____ the users had volunteered, the groups might already have differed in motivation.

A) Despite B) Because C) In spite D) Whereas of E) unless

One report claimed that the platform was responsible _____**23**_____ every improvement. The evaluation team objected.

A) for B) with C) at D) by E) of

Not only were the groups different at the start, but some pupils had also received extra tuition. Had participants been allocated at random, the comparison _____**24**_____ more convincing.

A) would being B) had being C) has been
D) would have been E) will have been

The report was revised to describe an association _____**25**_____ a demonstrated cause. The team recommended conducting a second trial.

A) except that B) as though C) in order that
D) rather than E) owing to

Each participant was asked to state _____**26**_____ they had used other revision resources. That information, which had not been collected initially, would help interpret the results.

A) whether B) which C) whom D) what E) whose

The aim was not to make the findings sound less impressive, but to make the claim fit the evidence. No platform, however promising, should be judged solely on the basis of one small trial. The more carefully the limitations were stated, the easier it became to plan a useful next study.

Spelling/Sentence Structure Exercises

Each line contains ONE mistake or NO mistake. Mark A, B, C, D or E (E is for "*No mistake*").

27. Mr. Ross asked whether we understood why the two accounts differed so substantially.
A **B** **C** **D**
E : No mistake

28. The results were more reliable than those obtained in the privious trial.
A **B** **C** **D** **E : No mistake**

29. The charity received several big donations, all of which was acknowledged in writing.
A **B** **C** **D**
E : No mistake

30. Despite of the rain, the volunteers continued to repair the path beside the river.
A **B** **C** **D**
E : No mistake

31. The new scheme is intended to benefit pupils who have less opportunities to travel.
A **B** **C** **D**
E : No mistake

32. There is a significant difference between accepting criticism and to abandon a proposal.

A **B** **C** **D**

E : No mistake

33. The equipment was delivered yesterday, but its instructions was missing.

A **B** **C** **D** **E : No mistake**

34. The panel praised her ability to listen and to explain complex ideas clearly.

A **B** **C** **D** **E : No mistake**

35. If I had known about the delay, I would have chose a different route.

A **B** **C** **D** **E : No mistake**

Section 3: STEM & Innovation *(20 marks)*

36. Using V = IR, what current flows through a 6 Ω resistor at 18 V?

A) 2A B) 3A C) 6A D) 54A E) 108A

37. Which process copies DNA before cell division?

A) Transcription B) Replication C) Evaporation D) Translation E) Combustion

38. If $g(x) = x^2 - 4$, g(5)=…

A) 9 B) 21 C) 25 D) 27 E) 29

39. A network latency falls from 80 ms to 52 ms. What is the percentage reduction?

A) 28% B) 52% C) 40% D) 45% E) 35%

40. A controlled experiment tests an AI interface. Why use a control group?

A) To maximize the collection of quantitative user data
B) To prevent external variables from affecting the test group
C) To guarantee the AI outperforms human benchmarks
D) To eliminate all user interface bugs automatically
E) To isolate the true effect of the interface by baseline comparison

41. A pie chart has four sectors in ratio 2:3:4:6. What angle is the largest sector?

A) 96° B) 120° C) 144° D) 150° E) 180°

42. Which calculation is closest to 1?

A) 0.09×10 B) 2.2÷2 C) 0.25×3 D) 1.2−0.15 E) 0.51+0.48

43. A mutation is best defined as a…
A) guaranteed harmful genetic defect
B) permanent change in a DNA sequence
C) process that only occurs during cloning
D) standard network encryption protocol
E) random mistake always fixed by the cell

44. If events A and B are independent with probabilities 0.5 and 0.4, P(A and B)=…
A) 0.1 B) 0.45 C) 0.9 D) 0.2 E) 0.55

45. Engineers and nature (like bees in a honeycomb) often choose hexagons over triangles for certain structural grids or core materials. Why are hexagons preferred in these specific applications?
A) They provide the highest structural rigidity per individual vertex.
B) They maximise volume and surface area while using the least perimeter material.
C) They naturally cancel out gravitational pull through destructive interference.
D) They are the only regular polygon that can tile a flat surface perfectly.
E) They distribute mechanical stress evenly across all sides, preventing structural failure.

46. An investment falls 20% then rises 25%. Relative to the start, it is…
A) back to the starting value B) 5% higher C) 5% lower
D) 45% lower E) 10% higher

47. Which statistic for the dataset {8, 9, 10, 10, 11, 52} changes the least if the outlier 52 is replaced with 100?
A) Mean B) Median C) Range D) Midrange E) Standard Deviation

48. A researcher changes one independent variable and keeps other relevant conditions constant mainly to:
A) eliminate experimental error B) ensure the results are statistically significant
C) support a clearer causal interpretation D) prevent the need for data replication
E) ensure the dependent variable remains unchanged

49. Which valid numerical symbols can a single binary digit (bit) assume in digital logic?
A) -1 or +1 B) 0 to 7 C) 1 or 2 D) 0 or 1 E) 0 to 9

50. A test has sensitivity 95%. This means it correctly identifies approximately…
A) only 5% of true positive cases B) 95% of true positive cases Add
C) 95% of all negative cases D) 95% of all people regardless of condition
E) 95% of people who test positive actually don't have the condition

51. What is the smallest positive integer divisible by both 18 and 24?

A) 36 B) 432 C) 72 D) 108 E) 48

52. A server processes 1,200 requests in 30 seconds. Its average rate is … requests/s.

A) 30 B) 60 C) 40 D) 50 E) 90

53. At a tech conference, the ratio of marketing executives to software developers in a keynote hall is 5:4. After a breakout session is announced, 10 marketing executives leave the hall while 10 software developers enter. This cause-and-effect shift causes the ratio of marketing executives to developers to exactly flip to 4:5. Later on, half of the developers leave the hall to grab lunch.

How many total professionals (marketing executives and developers combined) are now remaining in the hall?

A) 65 B) 75 C) 90 D) 50 E) 110

54. A photovoltaic cell converts…

A) chemical energy into gravity
B) sound into mass
C) electricity into sunlight
D) kinetic energy into light energy
E) light energy directly into electrical energy

55. What is the value of this expression: $-3 \times (5 - 9)^2 + 8 \times (-6) \div 2$

A) -72 B) 24 C) 120 D) -24 E) 144

Section 4: Verbal Reasoning *(12 marks)*

Move ONE letter from the first word to the second word.

The order of the letters must **not** otherwise be changed, and the two new words must **make sense**.

56. bread fee

A) b B) r C) e D) a E) d

57. pride act

A) p B) r C) i D) d E) e

58. stone ear

A) s B) t C) o D) n E) e

59. spear cot

A) s B) p C) e D) a E) r

In these following questions, the **same letter** must fit into both sets of brackets to complete the word in front of the brackets and begin the word after the brackets.

60. bea (?) ice cha (?) ing
A) s B) t C) r D) d E) n

61. plan (?) rail craf (?) ide
A) s B) d C) e D) r E) t

62. roo (?) lask loa (?) an
A) s B) d C) t D) f E) m

In these sentences, **a word of four letters** is hidden at the end of one word and the beginning of the next word. Find the pair of words that contains the hidden word and mark this answer on the answer sheet.

63. The children hid eagerly behind the curtains.
(Find the pair hiding a four-letter word meaning a thought or suggestion.)
A) hid eagerly B) the curtains C) eagerly behind D) children hid E) The children

64. The film ended before the discussion began.
(Find the pair hiding a four-letter word meaning to repair.)
A) before the B) ended before C) The film D) film ended E) discussion began

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Three of the following four words are given in code.
The codes are not written in the same order as the words, and one is missing.
Use the codes below to answer the questions in this section.

STONE NOTES TONES ONSET
49267 72946 29467

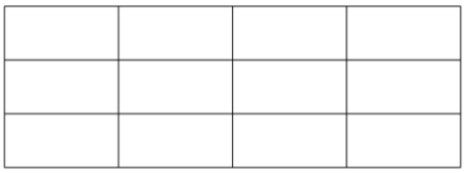
65. Find the code for the word **TENSE**.
A) 26467 B) 62476 C) 26476 D) 24676 E) 26746

66. Find the word that has the number code **94762**
A) STONE B) TONES C) NOTES D) STENO E) ONSET

67. Find the word that has the number code **4672**
A) TENT B) NETS C) TENS D) NEST E) SENT

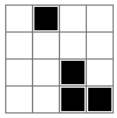
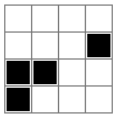
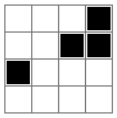
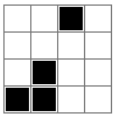
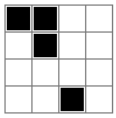
Section 5: Non-Verbal Reasoning *(8 marks)*

68. How many rectangles are present in the complete figure?

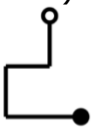
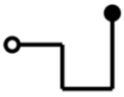
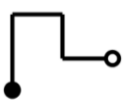
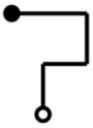
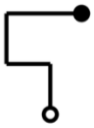


A) 57 B) 58 C) 59 D) 60 E) 61

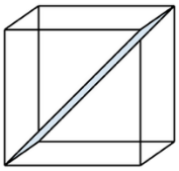
69. Find the odd one out.

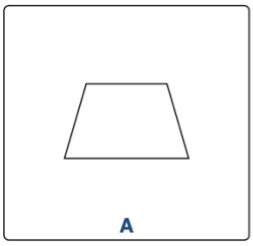
A) 
B) 
C) 
D) 
E) 

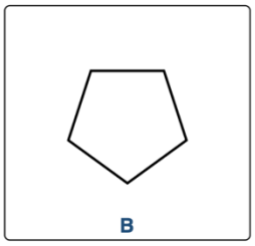
70. Find the odd one out.

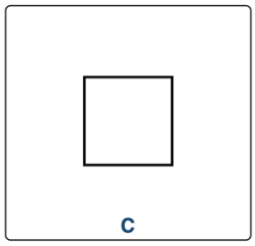
A) 
B) 
C) 
D) 
E) 

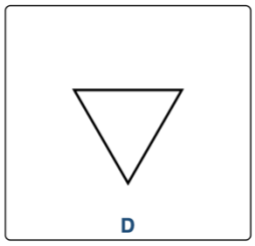
71. Which 2D shape is formed by the shown slice through the 3D solid?

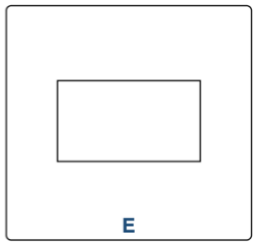


A) 

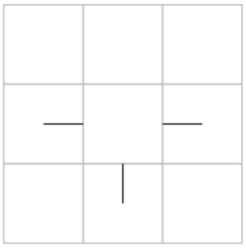
B) 

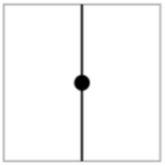
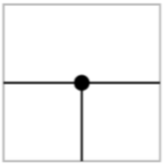
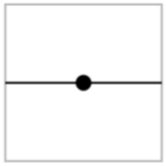
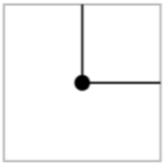
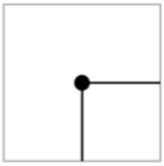
C) 

D) 

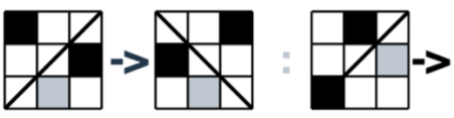
E) 

72. Which centre tile connects every incoming pipe exactly, with no unmatched pipe end?



A) 
B) 
C) 
D) 
E) 

73. Apply the same transformation to the third figure as shown by the first pair.



A) 
B) 
C) 
D) 
E) 

74. Work out the code, then choose the code for the test figure.

 AQT  APV  CQV

 CRU  BPU  BRT

TEST 

A) AQV B) CQV C) BPV

D) BRV E) BQV

75. Complete the following pattern.



A) B) C) D) E)



Section 6: Miscellaneous *(5 marks)*

76. A writer places two apparently contradictory terms together, as in 'deafening silence'. What is this device called?

A) Anaphora B) Onomatopoeia C) A literal definition D) Oxymoron E) Alliteration

77. Which musical instruction normally asks performers to become gradually louder?

A) Diminuendo B) Crescendo C) Ritardando D) Pianissimo E) Staccato

78. Which city has been crowned the world's best city for 2026 by the Time Out magazine?

A) Melbourne B) Edinburgh C) New York D) Paris E) Berlin

79. Who is the first scientist to achieve 2 Nobel prizes?

A) Marie Curie B) Linus Pauling C) John Bardeen

D) Frederick Sanger E) Karl Barry Sharpless

80. Which language has the most native speakers in the world?

A) Spanish B) English C) Hindi D) Portuguese E) Mandarin Chinese

~END OF PAPER~