

Class 7 · Computer Science Olympiad

Total questions 50	Total marks 60	Time 60 minutes	Negative marking None
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Each question has four options, of which only one is correct. Mark your answer on the answer sheet. The Achievers Section carries higher marks per question. The answer key with full solutions is at the end of this paper.

This is original practice material written to the Level 1 pattern. It is not a past paper and is not affiliated with SOF or any official olympiad body.

Logical Reasoning

10 questions · 1 mark each · 10 marks

Q1. Doctor : Hospital :: Teacher : ____

- (A) Farm (B) School (C) Court (D) Factory

Q2. Find the next number in the pattern: 3, 8, 13, 18, ____

- (A) 24 (B) 28 (C) 23 (D) 18

Q3. Find the next number in the pattern: 4, 9, 19, 39, ____

- (A) 80 (B) 77 (C) 79 (D) 78

Q4. Nila walks 6 m north, then 5 m east, then 4 m south. Where is Nila now, relative to the starting point?

- (A) 2 m north and 6 m east (B) 2 m north and 5 m east
(C) 6 m north and 5 m east (D) 3 m north and 5 m east

Q5. In a row of 29 children, Sana is 13th from the left end. What is Sana's position from the right end?

- (A) 17th (B) 16th (C) 18th (D) 19th

Q6. Which word would come FIRST in a dictionary?

- (A) maple (B) museum (C) marble (D) mango

Q7. If JAR is written as 10 - 1 - 18 using the positions of the letters in the alphabet, how is BAG written?

- (A) 2 - 1 - 7 (B) 3 - 2 - 8 (C) 25 - 26 - 20 (D) 7 - 1 - 2

Q8. Read the statements and choose the conclusion that MUST be true.

All roses are flowers. All flowers need water.

- (A) Only roses need water. (B) All flowers are roses.
(C) All roses need water. (D) Some roses do not need water.

Q9. Five friends A, B, C, D and E sit in a row of five seats. A sits at the extreme left end, D sits at the extreme right end, C sits exactly in the middle and B sits between A and C. Who sits in the fourth seat from the left?

- (A) C (B) D (C) B (D) E

Q10. Find the odd one out: 16, 20, 26, 36, 40

- (A) 26 (B) 20 (C) 16 (D) 40

Computer Science

30 questions · 1 mark each · 30 marks

Q11. What is software?

- (A) The screen of a computer
- (B) The physical parts of a computer
- (C) A set of programs that tell the computer what to do
- (D) The wires inside a computer

Q12. What does a modem or router mainly help you do?

- (A) Print in colour
- (B) Store photos
- (C) Cool the computer
- (D) Connect to the internet

Q13. What is the shortcut normally used to paste copied text?

- (A) Ctrl + C
- (B) Ctrl + S
- (C) Ctrl + V
- (D) Ctrl + Z

Q14. Which of these is an example of hardware?

- (A) A web page
- (B) A printer
- (C) An operating system
- (D) A song file

Q15. Which key makes letters appear in CAPITAL letters while it is switched on?

- (A) Caps Lock
- (B) Alt
- (C) Tab
- (D) Esc

Q16. What should you do with a password?

- (A) Keep it secret
- (B) Use your name as password
- (C) Write it on the desk
- (D) Tell your whole class

Q17. What is a computer virus?

- (A) A germ that makes the user ill
- (B) A broken wire inside the computer
- (C) A type of printer
- (D) A harmful program that can damage files

Q18. What is a bug in a program?

- (A) A kind of printer
- (B) A type of cable
- (C) A small insect inside the computer
- (D) A mistake that makes it behave wrongly

Q19. Which program would you use to type and format a letter?

- (A) A spreadsheet
- (B) A paint program
- (C) A word processor
- (D) A web browser

Q20. What does a folder do?

- (A) It holds files together in one place
- (B) It types files
- (C) It deletes files
- (D) It prints files

Q21. What will be printed? `x = 5; x = x + 3; print(x)`

- (A) 3
- (B) 5
- (C) 8
- (D) 53

Q22. What is the output of the instruction: `print(2 + 3 * 4)`?

- (A) 9
- (B) 20
- (C) 24
- (D) 14

Q23. Which of these stores data permanently?

- (A) Clipboard
- (B) Cache
- (C) Hard disk
- (D) RAM

- Q24. Which of these makes a computer run slowly and can harm files?
(A) A virus (B) A wallpaper (C) A shortcut (D) A folder
- Q25. Which shortcut undoes the last action?
(A) Ctrl + A (B) Ctrl + Y (C) Ctrl + Z (D) Ctrl + B
- Q26. What does CPU stand for?
(A) Computer Printing Unit (B) Control Panel Unit
(C) Central Processing Unit (D) Central Program Utility
- Q27. Which key is used to delete the letter to the LEFT of the cursor?
(A) Shift (B) Enter (C) Backspace (D) Caps Lock
- Q28. What is the desktop on a computer?
(A) A wooden table (B) The main screen you see after starting up
(C) A storage box (D) A type of printer
- Q29. What is the shortcut normally used to copy selected text?
(A) Ctrl + C (B) Ctrl + V (C) Ctrl + X (D) Ctrl + P
- Q30. Which of these is NOT an input device?
(A) Keyboard (B) Monitor (C) Microphone (D) Mouse
- Q31. What is the brain of the computer called?
(A) Printer (B) Monitor (C) Keyboard (D) CPU
- Q32. Which of these files is most likely a picture?
(A) photo.jpg (B) notes.txt (C) movie.mp4 (D) song.mp3
- Q33. Which program is best for adding up a column of numbers automatically?
(A) A paint program (B) A word processor
(C) A spreadsheet (D) A music player
- Q34. Which shortcut is normally used to save your work?
(A) Ctrl + P (B) Ctrl + S (C) Ctrl + N (D) Ctrl + O
- Q35. In programming, what is a loop used for?
(A) To print a document (B) To repeat a set of instructions
(C) To delete a file (D) To stop the program
- Q36. In a spreadsheet, where a row and a column meet is called a:
(A) Chart (B) Border (C) Cell (D) Sheet
- Q37. What is the @ symbol used in?
(A) A password only (B) An email address
(C) A phone number (D) A file name
- Q38. What is an email used for?
(A) Printing documents (B) Sending messages over the internet
(C) Playing music only (D) Charging the battery

Q39. What is a file extension such as .txt or .jpg used for?

- (A) To make the file smaller
- (B) To show what kind of file it is
- (C) To lock the file
- (D) To print the file

Q40. What is antivirus software for?

- (A) To find and remove harmful programs
- (B) To print in colour
- (C) To type faster
- (D) To make the screen brighter

AI, Robotics and Information Technology

5 questions · 1 mark each · 5 marks

Q41. What does a scanner do?

- (A) It plays sound
- (B) It copies a printed page into the computer
- (C) It charges the battery
- (D) It prints a page

Q42. What is a QR code used for?

- (A) To store information a camera can read quickly
- (B) To print photos
- (C) To cool the computer
- (D) To charge a phone

Q43. Which of these is used to store and carry files between computers?

- (A) A monitor
- (B) A keyboard
- (C) A pen drive
- (D) A speaker

Q44. A computer program that answers questions in ordinary language is an example of:

- (A) A printer driver
- (B) A spreadsheet
- (C) A screensaver
- (D) Artificial Intelligence

Q45. A machine that learns from examples rather than being told every rule is using:

- (A) Printing
- (B) Word processing
- (C) Scanning
- (D) Machine learning

Achievers Section

5 questions · 3 marks each · 15 marks

Q46. A river rises in the Himalayas, flows east across northern India and forms the world's largest delta before reaching the Bay of Bengal. Which river is it?

- (A) The Krishna
- (B) The Ganga
- (C) The Narmada
- (D) The Godavari

Q47. If RING is coded as VMRK, how is MILK coded?

- (A) IEHG
- (B) OPMQ
- (C) QMPO
- (D) UQTS

Q48. Using each of the digits 0, 3, 7, 2 exactly once, what is the smallest 4-digit number that can be formed?

- (A) 0237
- (B) 2037
- (C) 7320
- (D) 2046

Q49. The bar graph shows the number of books read by a class on each day of one week. How many books were read in the whole week?



- (A) 55 (B) 50 (C) 60 (D) 65

Q50. The average of 3 numbers is 20. 2 of them are 6, 25. What is the remaining number?

- (A) 20 (B) 29 (C) 27 (D) 31

Answer Key

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

Solutions

Q1. (B) The second word relates to the first in the same way School relates to Teacher.

Q2. (C) Each number is 5 more than the one before it, so the next is $18 + 5 = 23$.

Q3. (C) Each number is doubled and 1 is added: $39 \times 2 + 1 = 79$.

Q4. (B) The 4 m south cancels part of the 6 m north, leaving $6 - 4 = 2$ m north, and the 5 m east is unchanged. So Nila is 2 m north and 5 m east.

Q5. (A) Position from the right = total - position from the left + 1 = $29 - 13 + 1 = 17$ th.

Q6. (D) In alphabetical order the words run mango, maple, marble, museum, so mango comes first.

Q7. (A) B is letter 2 and A is letter 1 and G is letter 7, so $BAG = 2 - 1 - 7$.

Q8. (C) From "All roses are flowers. All flowers need water." it follows necessarily that all roses need water.

Q9. (D) Seat 1 = A, seat 3 = C, seat 5 = D. B must be between A and C, so B takes seat 2, and the only friend left for seat 4 is E.

- Q10. (A) Every other number is a multiple of 4. 26 is not.
- Q11. (C) Software is the set of instructions; hardware is the physical machine. The answer is A set of programs that tell the computer what to do.
- Q12. (D) A modem or router connects your devices to the internet. The answer is Connect to the internet.
- Q13. (C) Ctrl + V pastes whatever was last copied or cut.
- Q14. (B) Hardware is a physical part, like a printer.
- Q15. (A) Caps Lock keeps typing in capitals until it is switched off.
- Q16. (A) A password must be kept secret, or anyone can use your account. The answer is Keep it secret.
- Q17. (D) A virus is a malicious program; it cannot make a person ill. The answer is A harmful program that can damage files.
- Q18. (D) A bug is an error in the program. The answer is A mistake that makes it behave wrongly.
- Q19. (C) A word processor is designed for typing and formatting text.
- Q20. (A) Folders group related files together. The answer is It holds files together in one place.
- Q21. (C) x starts at 5, then $5 + 3 = 8$ is stored back in x, so 8 is printed.
- Q22. (D) Multiplication happens before addition: $3 \times 4 = 12$, then $2 + 12 = 14$.
- Q23. (C) A hard disk keeps data even when the computer is switched off; RAM does not.
- Q24. (A) A virus is harmful software that can slow a computer and damage files.
- Q25. (C) Ctrl + Z undoes the last action.
- Q26. (C) CPU stands for Central Processing Unit.
- Q27. (C) Backspace removes the character to the left; the Delete key removes the one to the right.
- Q28. (B) The desktop is the main working screen with icons on it. The answer is The main screen you see after starting up.
- Q29. (A) Ctrl + C copies, Ctrl + X cuts and Ctrl + V pastes.
- Q30. (B) A monitor shows output; the other three send information in.
- Q31. (D) The Central Processing Unit (CPU) carries out the instructions, so it is called the brain of the computer.
- Q32. (A) A .jpg file is an image; .txt is text, .mp3 is audio and .mp4 is video. The answer is photo.jpg.
- Q33. (C) A spreadsheet arranges data in rows and columns and can calculate totals.
- Q34. (B) Ctrl + S saves the current file.
- Q35. (B) A loop repeats instructions until a condition is met. The answer is To repeat a set of instructions.
- Q36. (C) The box where a row meets a column is a cell.
- Q37. (B) Every email address has an @ between the user name and the domain. The answer is An email address.
- Q38. (B) Email carries written messages over the internet. The answer is Sending messages over the internet.
- Q39. (B) The extension tells the computer and the user what type of file it is. The answer is To show what kind of file it is.
- Q40. (A) Antivirus software detects and removes malicious programs. The answer is To find and remove harmful programs.
- Q41. (B) A scanner turns a paper document into a digital image, so it is an input device. The answer is It copies a printed page into the computer.
- Q42. (A) A QR code holds information that a camera can read instantly. The answer is To store information a camera can read quickly.
- Q43. (C) A pen drive is a small portable storage device.
- Q44. (D) Understanding and answering ordinary language is an AI task. The answer is Artificial Intelligence.
- Q45. (D) Machine learning means a program improves from data and examples.
- Q46. (B) The Ganga flows east and forms the Sundarbans delta at the Bay of Bengal.
- Q47. (C) Every letter moves 4 place(s) forward, so MILK becomes QMPO.

Q48. (B) A 4-digit number cannot begin with 0, so the smallest possible first digit is 2. The remaining digits are then placed in increasing order: 2037.

Q49. (A) $5 + 20 + 10 + 10 + 10 = 55$ books.

Q50. (B) The 3 numbers add up to $20 \times 3 = 60$. The given numbers add up to 31, so the missing number is $60 - 31 = 29$.

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