

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. Which word would come FIRST in a dictionary?

- (A) mango (B) marble (C) melon (D) minute

Q2. In a queue, Suresh is 10th from the front and 8th from the back. How many people are in the queue altogether?

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

Q3. Which letter comes next? D, H, L, P, ____

- (A) S (B) U (C) T (D) X

Q4. In a class, 17 students play cricket, 18 play football and 9 play both games. Every student plays at least one of the two. How many students are there in the class?

- (A) 26 (B) 35 (C) 27 (D) 17

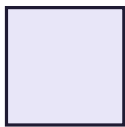
Q5. Pointing to a boy in a photograph, Rahul said, "He is the son of my paternal grandfather's only son." How is the boy related to Rahul?

- (A) Nephew (B) Brother (C) Uncle (D) Cousin

Q6. In the first row the numbers are 2, 2 and 8. In the second row they are 9, 6 and 30. In the third row they are 6, 8 and ____ . The same rule applies to every row.

- (A) 28 (B) 29 (C) 30 (D) 27

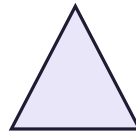
Q7. Which of these figures has exactly 4 lines of symmetry?



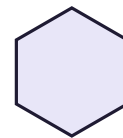
(A)



(B)



(C)



(D)

Q8. $7 : 49 :: 8 : \underline{\hspace{1cm}}$

- (A) 64 (B) 81 (C) 49 (D) 16

Q9. A father is 10 years older than his son. The son is 18 years old now. How old will the father be after 4 years?

- (A) 33 years (B) 36 years (C) 32 years (D) 28 years

Q10. Find the odd one out: 15, 21, 25, 27, 33

(A) 27

(B) 25

(C) 15

(D) 33

Computer Science

30 questions · 1 mark each · 30 marks

Q11. In a spreadsheet, what usually appears at the start of a formula?

(A) A question mark

(B) A hyphen

(C) An equals sign

(D) A full stop

Q12. What is an algorithm?

(A) A type of virus

(B) A step-by-step method to solve a problem

(C) A kind of computer screen

(D) A storage device

Q13. Which part of a computer carries out calculations?

(A) The CPU

(B) The monitor

(C) The printer

(D) The keyboard

Q14. What is a file extension such as .txt or .jpg used for?

(A) To make the file smaller

(B) To print the file

(C) To lock the file

(D) To show what kind of file it is

Q15. In programming, what does a variable do?

(A) It connects to wifi

(B) It deletes a file

(C) It stores a value that can change

(D) It prints the screen

Q16. Which shortcut undoes the last action?

(A) Ctrl + B

(B) Ctrl + Z

(C) Ctrl + Y

(D) Ctrl + A

Q17. What does a folder do?

(A) It prints files

(B) It deletes files

(C) It types files

(D) It holds files together in one place

Q18. Which memory loses all its contents when the computer is switched off?

(A) ROM

(B) Pen drive

(C) Hard disk

(D) RAM

Q19. What does CPU stand for?

(A) Central Program Utility

(B) Central Processing Unit

(C) Computer Printing Unit

(D) Control Panel Unit

Q20. What does it mean to "download" a file?

(A) To delete it from your device

(B) To print it on paper

(C) To send it to a friend

(D) To copy it from the internet to your device

Q21. What is the output of the instruction: `print(2 + 3 * 4)`?

(A) 9

(B) 14

(C) 20

(D) 24

Q22. What is software?

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

Q23. Which of these files is most likely a picture?

- (A) movie.mp4
- (B) photo.jpg
- (C) song.mp3
- (D) notes.txt

Q24. What is the @ symbol used in?

- (A) An email address
- (B) A phone number
- (C) A file name
- (D) A password only

Q25. Which of these files is most likely a song?

- (A) page.html
- (B) photo.jpg
- (C) song.mp3
- (D) notes.txt

Q26. Which program would you use to type and format a letter?

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

Q27. Which shortcut selects everything in a document?

- (A) Ctrl + E
- (B) Ctrl + Q
- (C) Ctrl + A
- (D) Ctrl + W

Q28. Which number system does a computer use internally?

- (A) Roman
- (B) Binary
- (C) Octal
- (D) Decimal

Q29. Which shortcut is normally used to save your work?

- (A) Ctrl + S
- (B) Ctrl + P
- (C) Ctrl + O
- (D) Ctrl + N

Q30. What will be printed? $x = 5$; $x = x + 3$; print(x)

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

Q31. In a spreadsheet, where a row and a column meet is called a:

- (A) Chart
- (B) Border
- (C) Sheet
- (D) Cell

Q32. In a flowchart, which shape is used for a decision?

- (A) An oval
- (B) A diamond
- (C) A rectangle
- (D) A circle

Q33. Which of these is a storage device?

- (A) Mouse
- (B) Speaker
- (C) Hard disk
- (D) Monitor

Q34. Which of these is a web browser?

- (A) Linux
- (B) Firefox
- (C) Windows
- (D) Android

Q35. What is an email used for?

- (A) Sending messages over the internet
- (B) Printing documents
- (C) Playing music only
- (D) Charging the battery

Q36. Which key is used to delete the letter to the LEFT of the cursor?

- (A) Backspace
- (B) Shift
- (C) Caps Lock
- (D) Enter

Q37. What does a modem or router mainly help you do?

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

Q38. What is the shortcut normally used to copy selected text?

- (A) Ctrl + C (B) Ctrl + V (C) Ctrl + X (D) Ctrl + P

Q39. What do we call a set of keys pressed together to do something quickly?

- (A) A folder (B) A driver
(C) A keyboard shortcut (D) A password

Q40. What does RAM stand for?

- (A) Random Access Memory (B) Rapid Access Machine
(C) Run All Memory (D) Read Any Memory

AI, Robotics and Information Technology

5 questions · 1 mark each · 5 marks

Q41. Which of these is a search engine?

- (A) Google (B) Excel (C) Word (D) Paint

Q42. Which of these lets you talk to someone far away using the internet?

- (A) A printer (B) A video call (C) A scanner (D) A keyboard

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

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

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

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

Q45. Which of these is an example of a smart device?

- (A) A wooden ruler (B) A fitness band that counts steps
(C) A paper notebook (D) A pencil

Achievers Section

5 questions · 3 marks each · 15 marks

Q46. The clock in the figure shows 4:30. What is the angle between the hour hand and the minute hand?



- (A) 30° (B) 75° (C) 45° (D) 60°

Q47. If DESK is coded as GHVN, how is ROAD coded?

- (A) URDG (B) OLXA (C) GDRU (D) XUGJ

Q48. How many numbers between 50 and 80 leave a remainder of 6 when divided by 7?

- (A) 5 (B) 6 (C) 4 (D) 3

Q49. 4 taps together fill a tank in 60 minutes. How long will 10 taps of the same kind take to fill it?

- (A) 24 minutes (B) 60 minutes (C) 21 minutes (D) 27 minutes

Q50. The average of 5 numbers is 32. 4 of them are 73, 61, 7, 2. What is the remaining number?

- (A) 15 (B) 19 (C) 17 (D) 32

Answer Key

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

Solutions

Q1. (A) In alphabetical order the words run mango, marble, melon, minute, so mango comes first.

Q2. (D) Counting Suresh only once: $10 + 8 - 1 = 17$ people.

Q3. (C) Each letter moves 4 place(s) forward in the alphabet, so after P comes T.

Q4. (A) $17 + 18 - 9 = 26$. The 9 who play both were counted twice, so they are subtracted once.

- Q5. (B) Rahul's paternal grandfather's only son is Rahul's own father, so that man's son is Rahul's own sibling. The answer is Brother.
- Q6. (A) The rule is: add the two numbers and double the result. Check: 2, 2 gives 8 and 9, 6 gives 30; so 6, 8 gives 28.
- Q7. (A) Counting lines of symmetry: square has 4, rectangle has 2, equilateral triangle has 3, regular hexagon has 6. The answer is figure (A).
- Q8. (A) The second number is the first multiplied by itself: $7 \times 7 = 49$, so $8 \times 8 = 64$.
- Q9. (C) The father is $18 + 10 = 28$ now, so after 4 years he will be $28 + 4 = 32$ years.
- Q10. (B) Every other number is a multiple of 3. 25 is not.
- Q11. (C) Spreadsheet formulas normally begin with = . The answer is An equals sign.
- Q12. (B) An algorithm is an ordered set of steps that solves a problem. The answer is A step-by-step method to solve a problem.
- Q13. (A) The CPU performs the calculations and processing.
- Q14. (D) 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.
- Q15. (C) A variable is a named place in memory holding a value that can change. The answer is It stores a value that can change.
- Q16. (B) Ctrl + Z undoes the last action.
- Q17. (D) Folders group related files together. The answer is It holds files together in one place.
- Q18. (D) RAM is volatile: its contents disappear when the power goes off.
- Q19. (B) CPU stands for Central Processing Unit.
- Q20. (D) Downloading brings a file from the internet onto your own device. The answer is To copy it from the internet to your device.
- Q21. (B) Multiplication happens before addition: $3 \times 4 = 12$, then $2 + 12 = 14$.
- Q22. (B) 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.
- Q23. (B) A .jpg file is an image; .txt is text, .mp3 is audio and .mp4 is video. The answer is photo.jpg.
- Q24. (A) Every email address has an @ between the user name and the domain. The answer is An email address.
- Q25. (C) An .mp3 file holds audio. The answer is song.mp3.
- Q26. (D) A word processor is designed for typing and formatting text.
- Q27. (C) Ctrl + A selects all.
- Q28. (B) Computers work in binary, using only the digits 0 and 1.
- Q29. (A) Ctrl + S saves the current file.
- Q30. (C) x starts at 5, then $5 + 3 = 8$ is stored back in x, so 8 is printed.
- Q31. (D) The box where a row meets a column is a cell.
- Q32. (B) A diamond marks a decision; a rectangle is a process and an oval is start or stop.
- Q33. (C) A hard disk stores data.
- Q34. (B) Firefox is a web browser; the others are operating systems.
- Q35. (A) Email carries written messages over the internet. The answer is Sending messages over the internet.
- Q36. (A) Backspace removes the character to the left; the Delete key removes the one to the right.
- Q37. (A) A modem or router connects your devices to the internet. The answer is Connect to the internet.
- Q38. (A) Ctrl + C copies, Ctrl + X cuts and Ctrl + V pastes.
- Q39. (C) Keys pressed together, like Ctrl + S, are a keyboard shortcut.
- Q40. (A) RAM is Random Access Memory, the temporary working memory of a computer.
- Q41. (A) A search engine such as Google finds pages on the web.

Q42. (B) A video call carries picture and sound over the internet.

Q43. (C) A pen drive is a small portable storage device.

Q44. (B) Understanding and answering ordinary language is an AI task. The answer is Artificial Intelligence.

Q45. (B) A smart device has sensors and a small computer inside, like a fitness band. The answer is A fitness band that counts steps.

Q46. (C) The minute hand is at 180° from 12 and the hour hand at 135° from 12, so the angle between them is 45° .

Q47. (A) Every letter moves 3 place(s) forward, so ROAD becomes URDG.

Q48. (C) The numbers are 55, 62, 69, 76 — 4 of them.

Q49. (A) One tap alone would take $4 \times 60 = 240$ minutes. With 10 taps the time is $240 / 10 = 24$ minutes.

Q50. (C) The 5 numbers add up to $32 \times 5 = 160$. The given numbers add up to 143, so the missing number is $160 - 143 = 17$.

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