

Class 8 · 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. Pointing to a boy in a photograph, Meera said, "He is the son of my paternal grandfather's only son." How is the boy related to Meera?

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

Q2. Bird : Nest :: Bee : ____

- (A) Hive (B) Burrow (C) Cave (D) Web

Q3. In a class, 18 students play cricket, 16 play football and 7 play both games. Every student plays at least one of the two. How many students are there in the class?

- (A) 20 (B) 34 (C) 27 (D) 28

Q4. If FAN is written as 6 - 1 - 14 using the positions of the letters in the alphabet, how is BAG written?

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

Q5. If the 18th of a month is a Thursday, what day of the week is the 29th of the same month?

- (A) Monday (B) Tuesday (C) Sunday (D) Wednesday

Q6. 8 : 64 :: 4 : ____

- (A) 25 (B) 16 (C) 8 (D) 9

Q7. In a queue, Deep is 9th from the front and 12th from the back. How many people are in the queue altogether?

- (A) 20 (B) 21 (C) 22 (D) 19

Q8. 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) E (B) D (C) B (D) C

Q9. Which letter comes next? C, G, K, O, ____

- (A) T (B) R (C) S (D) W

Q10. In a certain code TIN is written as UJO. How is CAT written in that code?

- (A) BZS (B) ECV (C) UBD (D) DBU

Computer Science

30 questions · 1 mark each · 30 marks

- Q11. Which part of a computer carries out calculations?
(A) The monitor (B) The printer (C) The keyboard (D) The CPU
- Q12. Which is the largest unit of the four?
(A) 1 megabyte (B) 1 byte (C) 1 kilobyte (D) 1 gigabyte
- Q13. Which of these is a storage device?
(A) Speaker (B) Monitor (C) Mouse (D) Hard disk
- Q14. Which of these is the safest password?
(A) 123456 (B) myname
(C) password (D) Ra1n@Kolkata#27
- Q15. What does "www" appear in?
(A) A website address (B) A file size
(C) A phone number (D) A password
- Q16. What is a file extension such as .txt or .jpg used for?
(A) To make the file smaller (B) To lock the file
(C) To print the file (D) To show what kind of file it is
- Q17. What does CPU stand for?
(A) Computer Printing Unit (B) Central Processing Unit
(C) Central Program Utility (D) Control Panel Unit
- Q18. Which of these is a programming language?
(A) Python (B) Notepad (C) Windows (D) Firefox
- Q19. Which shortcut is normally used to save your work?
(A) Ctrl + S (B) Ctrl + O (C) Ctrl + N (D) Ctrl + P
- Q20. What will be printed? `x = 5; x = x + 3; print(x)`
(A) 8 (B) 3 (C) 5 (D) 53
- Q21. Which of these files is most likely a song?
(A) page.html (B) photo.jpg (C) notes.txt (D) song.mp3
- Q22. What does WWW stand for?
(A) World Wide Web (B) Web World Wide
(C) World Wired Web (D) Wide World Web
- Q23. Which of these makes a computer run slowly and can harm files?
(A) A folder (B) A virus (C) A shortcut (D) A wallpaper
- Q24. What is a computer virus?
(A) A germ that makes the user ill (B) A harmful program that can damage files
(C) A type of printer (D) A broken wire inside the computer

Q25. Which of these is an example of hardware?

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

Q26. What is the shortcut normally used to paste copied text?

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

Q27. Which of these is NOT an input device?

- (A) Monitor
- (B) Microphone
- (C) Mouse
- (D) Keyboard

Q28. What does RAM stand for?

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

Q29. What do we call a set of keys pressed together to do something quickly?

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

Q30. What is an algorithm?

- (A) A storage device
- (B) A step-by-step method to solve a problem
- (C) A kind of computer screen
- (D) A type of virus

Q31. What is antivirus software for?

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

Q32. Which program is best for adding up a column of numbers automatically?

- (A) A paint program
- (B) A word processor
- (C) A music player
- (D) A spreadsheet

Q33. Which shortcut selects everything in a document?

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

Q34. Which number system does a computer use internally?

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

Q35. Which shortcut is normally used to print?

- (A) Ctrl + F
- (B) Ctrl + P
- (C) Ctrl + S
- (D) Ctrl + D

Q36. Which program would you use to type and format a letter?

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

Q37. In a spreadsheet, what usually appears at the start of a formula?

- (A) A full stop
- (B) A question mark
- (C) A hyphen
- (D) An equals sign

Q38. What does it mean to "download" a file?

- (A) To print it on paper
- (B) To delete it from your device
- (C) To copy it from the internet to your device
- (D) To send it to a friend

Q39. In programming, what does a variable do?

- (A) It deletes a file
- (B) It connects to wifi
- (C) It prints the screen
- (D) It stores a value that can change

Q40. What is the binary number 101 in decimal?

- (A) 3
- (B) 6
- (C) 5
- (D) 9

AI, Robotics and Information Technology

5 questions · 1 mark each · 5 marks

Q41. A computer program that answers questions in ordinary language is an example of:

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

Q42. What should you do if a stranger online asks for your home address?

- (A) Send it politely
- (B) Refuse and tell a trusted adult
- (C) Share your school name instead
- (D) Post it publicly

Q43. Which of these lets you talk to someone far away using the internet?

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

Q44. Which of these is an example of a robot being useful in a factory?

- (A) Assembling parts on a production line
- (B) Sleeping at night
- (C) Eating lunch with workers
- (D) Dreaming about work

Q45. Which of these is an example of using technology politely?

- (A) Silencing your phone in class
- (B) Playing loud videos in class
- (C) Calling during an exam
- (D) Recording people without asking

Achievers Section

5 questions · 3 marks each · 15 marks

Q46. If RING is coded as TKPI, how is ROAD coded?

- (A) FCQT
- (B) VSEH
- (C) TQCF
- (D) PMYB

Q47. 3 taps together fill a tank in 40 minutes. How long will 12 taps of the same kind take to fill it?

- (A) 7 minutes
- (B) 40 minutes
- (C) 13 minutes
- (D) 10 minutes

Q48. The clock in the figure shows 3:00. What is the angle between the hour hand and the minute hand?



- (A) 90° (B) 105° (C) 75° (D) 120°

Q49. Find the next number: 6, 8, 12, 18, 26, ____

- (A) 37 (B) 38 (C) 36 (D) 34

Q50. The average of 3 numbers is 19. 2 of them are 31, 18. What is the remaining number?

- (A) 19 (B) 8 (C) 10 (D) 6

Answer Key

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

Solutions

Q1. (A) Meera's paternal grandfather's only son is Meera's own father, so that man's son is Meera's own sibling. The answer is Brother.

Q2. (A) Nest is where a bird lives or belongs, in the same way Hive goes with bee.

Q3. (C) $18 + 16 - 7 = 27$. The 7 who play both were counted twice, so they are subtracted once.

Q4. (A) B is letter 2 and A is letter 1 and G is letter 7, so $BAG = 2 - 1 - 7$.

Q5. (A) 11 days later is 1 week(s) and 4 day(s), so the day moves 4 place(s) on from Thursday to Monday.

Q6. (B) The second number is the first multiplied by itself: $8 \times 8 = 64$, so $4 \times 4 = 16$.

Q7. (A) Counting Deep only once: $9 + 12 - 1 = 20$ people.

Q8. (A) 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.

- Q9. (C) Each letter moves 4 place(s) forward in the alphabet, so after O comes S.
- Q10. (D) Each letter moves 1 place(s) forward in the alphabet, so CAT becomes DBU.
- Q11. (D) The CPU performs the calculations and processing.
- Q12. (D) A gigabyte is larger than a megabyte, which is larger than a kilobyte, which is larger than a byte. The answer is 1 gigabyte.
- Q13. (D) A hard disk stores data.
- Q14. (D) A strong password mixes capitals, small letters, digits and symbols and is hard to guess. The answer is Ra1n@Kolkata#27.
- Q15. (A) Many website addresses begin with www. The answer is A website address.
- Q16. (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.
- Q17. (B) CPU stands for Central Processing Unit.
- Q18. (A) Python is a programming language; the others are programs or an operating system.
- Q19. (A) Ctrl + S saves the current file.
- Q20. (A) x starts at 5, then $5 + 3 = 8$ is stored back in x, so 8 is printed.
- Q21. (D) An .mp3 file holds audio. The answer is song.mp3.
- Q22. (A) WWW stands for World Wide Web.
- Q23. (B) A virus is harmful software that can slow a computer and damage files.
- Q24. (B) A virus is a malicious program; it cannot make a person ill. The answer is A harmful program that can damage files.
- Q25. (A) Hardware is a physical part, like a printer.
- Q26. (D) Ctrl + V pastes whatever was last copied or cut.
- Q27. (A) A monitor shows output; the other three send information in.
- Q28. (A) RAM is Random Access Memory, the temporary working memory of a computer.
- Q29. (C) Keys pressed together, like Ctrl + S, are a keyboard shortcut.
- Q30. (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.
- Q31. (C) Antivirus software detects and removes malicious programs. The answer is To find and remove harmful programs.
- Q32. (D) A spreadsheet arranges data in rows and columns and can calculate totals.
- Q33. (A) Ctrl + A selects all.
- Q34. (C) Computers work in binary, using only the digits 0 and 1.
- Q35. (B) Ctrl + P opens the print dialog.
- Q36. (C) A word processor is designed for typing and formatting text.
- Q37. (D) Spreadsheet formulas normally begin with = . The answer is An equals sign.
- Q38. (C) Downloading brings a file from the internet onto your own device. The answer is To copy it from the internet to your device.
- Q39. (D) A variable is a named place in memory holding a value that can change. The answer is It stores a value that can change.
- Q40. (C) 101 in binary is $1 \times 4 + 0 \times 2 + 1 \times 1 = 5$.
- Q41. (C) Understanding and answering ordinary language is an AI task. The answer is Artificial Intelligence.
- Q42. (B) Never share personal details online; always tell a trusted adult. The answer is Refuse and tell a trusted adult.
- Q43. (A) A video call carries picture and sound over the internet.

Q44. (A) Robots do repetitive, precise tasks such as assembling parts. The answer is Assembling parts on a production line.

Q45. (A) Silencing your phone shows respect for others. The answer is Silencing your phone in class.

Q46. (C) Every letter moves 2 place(s) forward, so ROAD becomes TQCF.

Q47. (D) One tap alone would take $3 \times 40 = 120$ minutes. With 12 taps the time is $120 / 12 = 10$ minutes.

Q48. (A) The minute hand is at 0° from 12 and the hour hand at 90° from 12, so the angle between them is 90° .

Q49. (C) The gaps grow 2, 4, 6, 8, so the next gap is 10 and $26 + 10 = 36$.

Q50. (B) The 3 numbers add up to $19 \times 3 = 57$. The given numbers add up to 49, so the missing number is $57 - 49 = 8$.

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