

COMPUTER SCIENCE QUIZ BOWL

Rules

- The Quiz Bowl will be divided into 5 categories and a final question.
- Teams will have an answer sheet (Microsoft Form) for each category.
- All questions will be displayed and read with a short pause between questions.
- Teams are allowed to discuss and answer previous questions while the category is active.
- Once a category is finished, teams will submit their answer sheets for grading and answers will be given.
- Once answers are submitted, they are locked in. Resubmissions are not possible.
- Current scores will be announced before beginning a new category.
- No phones or electronic devices can be used and must be put away at all time. Use of such during the event will result in immediate disqualification.
- The quiz bowl laptop is to be used solely for accessing the answer sheets and submitting answers.

Rules

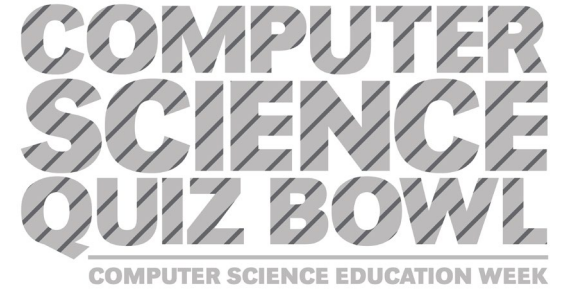
- Once all 5 categories are finished, the current scores will be reported.
- The category for the final question will be given.
- Teams are allowed to wager any number of their points on the final question.
- Once all wagers are in, the final question will be revealed and 15 minutes given to submit answers.
- Those teams that answer correctly will have their wager amount added to their score, those that answer incorrectly will have their wager amount deducted.
- The answer and final scores will be reported during the awards ceremony.

For those who've never been to UNO's CS Quiz Bowl, the following are a subset of questions from 2024's Quiz Bowl.

Note that categories may change from year to year.

Category 1

X Questions, 10 points each



Current Events in Computing

Question 1

On July 19, 2024, the world ground to a halt due to a global IT outage caused by a software update. Where did the software update come from?

- a) CrowdStrike
- b) Falcon Sensors
- c) Kaspersky Labs
- d) McAfee

Question 2

Which state has sought to ban TikTok from all personal devices?

- a)Alabama
- b)Kansas
- c)Montana
- d)Nebraska

Question 3

In April 2024, a prominent non-profit organization that supported women pursuing technology careers shut down due to funding issues. Which organization was this?

- a) Black Girls Code
- b) Girls Who Code
- c) Ladies Of Code
- d) Women Who Code

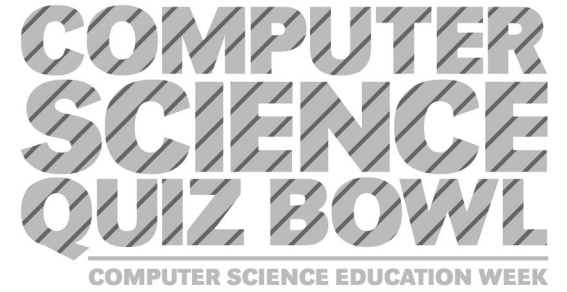
Question 4

In May 2024, OpenAI rolled out a voice assistant feature for ChatGPT. The voice was notably similar to:

- a) Miley Cyrus
- b) Anne Hathaway
- c) Taylor Swift
- d) Scarlett Johansson

Category 2

X Questions, 10 points each



Artificial Intelligence

Question 1

Often considered the “Father of AI”, this person created LISP, the first programming language widely used by early AI researchers.

- a) Marvin Minsky
- b) John McCarthy
- c) Alan Turing
- d) Andrew Ng

Question 2

Herbert Simon was an AI pioneer who won both the Turing Award and the Nobel Prize – the only person to have this distinction... until recently.

Who is the second person to achieve this double accomplishment?

- a) Geoffrey Hinton
- b) Yann LeCun
- c) Marvin Minsky
- d) Andrew Ng

Question 3

Modern day AI's ability to generate text and images that are becoming indistinguishable from human-created artifacts is due, in part, to a landmark contribution by the 2017 paper, "Attention Is All You Need". What was the contribution?

- a) Attentive training data
- b) Recurrent neural networks
- c) Reinforcement learning
- d) Transformer architecture

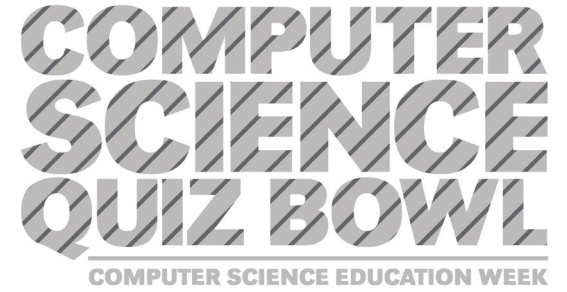
Question 4

_____ is the name of Nvidia's newest GPU microarchitecture, used by a new generation of GPUs currently under production. It was named after a mathematician, the first African American scholar inducted into the National Academy of Sciences.

- a) Blackwell
- b) Goodman
- c) Ivy
- d) Jenkins

Category 3

X Questions, 10 points each



Technology and Entertainment

Question 1

Which of the following social media companies is not owned by Meta:

- a)Instagram
- b)WhatsApp
- c)Threads
- d)Snapchat

Question 2

Which game franchise has the most releases:

- a) Games with Mario
- b) Call of Duty Franchise
- c) FIFA Franchise
- d) Games based on Star Wars

Question 3

Which actress played British cryptanalyst Joan Clarke, co-starring with Benedict Cumberbatch in a movie about cracking the Enigma code?

- a) Natalie Portman
- b) Jennifer Connelly
- c) Keira Knightley
- d) Rachel McAdams

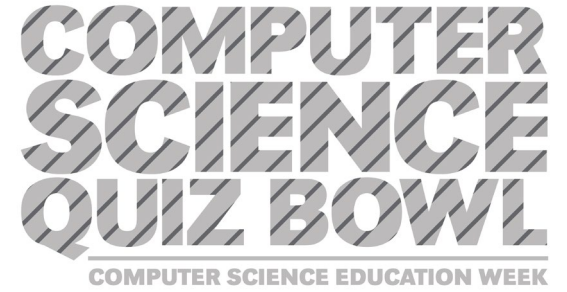
Question 4

Who did Ray-Ban partner with to produce smart glasses capable of taking pictures and videos, and livestreaming?

- a) Amazon
- b) Google
- c) Meta
- d) Microsoft

Category 4

X Questions, 10 points each



Computing History

Question 1

Among his many seminal accomplishments, he invented the field of information theory, which made it possible to reliably transmit digital information. He has been recognized as the “Father of the Information Age”.

- a) David Hilbert
- b) John von Neuman
- c) Claude Shannon
- d) Alan Turing

Question 2

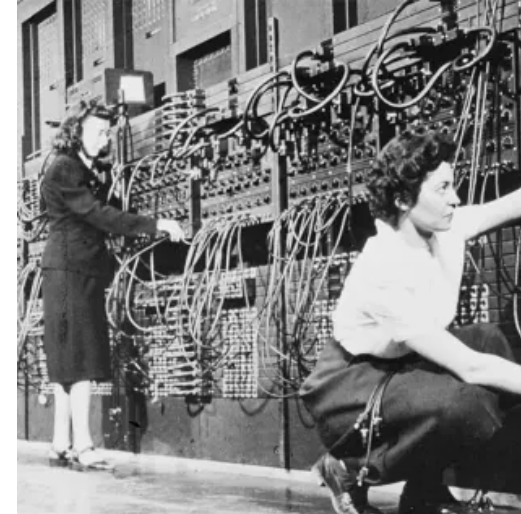
Who co-designed TCP/IP, the network protocol underlying today's Internet communications?

- a) Marc Andreessen
- b) Tim Berners-Lee
- c) Vinton Cerf
- d) James Gosling

Question 3

The first programmable, electronic, general-purpose digital computer, was completed in 1945 (see photo). But it would be only a heap of metal, wires, and vacuum tubes were it not for the women programmers who had the task of bringing this machine to life. Who were these programmers?

- a) BRAINIAC Two
- b) ENIAC Two
- c) ENIAC Six
- d) UNIVAC Six



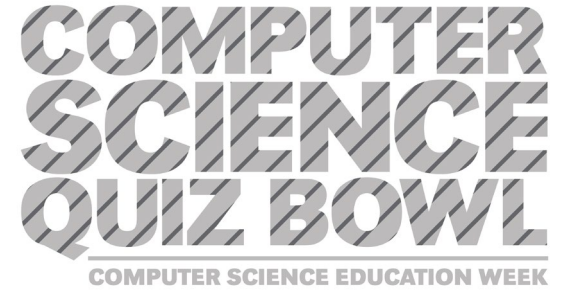
Question 4

Jon Postel designed SMTP in 1981. Decades later, this network protocol is still in use. What do we use it for?

- a) Making online payments
- b) Sending and receiving email
- c) Updating Instagram
- d) Uploading and downloading files

Category 5

X questions, 20 points each



Computational Thinking

Question 1

A pixel with RGB values (75, 150, 225) needs to be converted to grayscale for image processing. The formula for this conversion is:

$$\text{Grayscale} = 0.3 \times R + 0.6 \times G + 0.1 \times B$$

Which of the following options correctly represents the RGB triple of the resulting grayscale pixel?

- a) (135,135,135)
- b) (150,150,150)
- c) (135,150,135)
- d) (225,135,225)

Question 2

Given the hexadecimal value D4FE2003, how many 1s are there in the binary equivalent of this number?

- a)10
- b)14
- c)18
- d)20

Question 3

The 2nd edition of the Oxford English Dictionary (OED) has 21,728 pages. What is the maximum number of pages you would have to look at to find a specific word?

- a)15
- b)30
- c)7,500
- d)21,728

Question 4

A robot is positioned on a 2D grid at the origin (0, 0), which is located in the **lower-left corner** of the plane. The robot can move horizontally (left or right) by **2 units** and vertically (up or down) by **1 unit**.

If the robot follows this sequence of moves: **UP, RIGHT, UP, LEFT, DOWN, RIGHT**, what are its final coordinates?

- a) (1,2)
- b) (2,1)
- c) (0,1)
- d) (2,2)