TEST NAME: **BP10 1.0**
TEST ID: **1007729**
GRADE: **09 - Ninth Grade - 12 - Twelfth Grade**
SUBJECT: **Computer and Information Sciences**
TEST CATEGORY: **Shared Classroom Assessments**

1. Which statement **best** describes how World War II impacted computer development?

   A. The need for accuracy of military calculations for the trajectory of artillery shells led government to develop a computer.

   B. The need for navigational systems to steer troops to landings led to the development of sophisticated computers.

   C. The use of vacuum tubes in visual displays during WWI led to the use of tubes in computers.

   D. The use of wiring in WWI communication instruments led to a development of computers with wire houses.

2. To determine the level of the computer language, compare the language used to the:

   A. abstractions the language contains from machine code of 0s and 1s.

   B. computer hardware being used.

   C. modifications the language will handle.

   D. number of variables in the language.

3. Which statement **best** describes why the binary system is one of the four numbering systems used in computers?

   A. Computers can only process electronic pulses which are equivalent to on and off pulses of electricity.

   B. Computers do not have a brain so programmers must keep it simple in making conversions.

   C. Four digits can be used to show a large range of information by using the power of 2.

   D. The most significant digit to a computer is 0 so it is open to the flow of electricity.

4. What is the hexadecimal number 1A in binary form?

   A. 10111

   B. 11010

   C. 11100

   D. 11110

5. What did Ada Byron mean when she said that the Analytical Engine could never "originate anything"?

   A. A machine could not do calculations.

   B. A machine could not talk.

   C. A machine could not think.

   D. A machine could not make decisions.

6. Which act requires federal agencies to develop, document, and implement an agency-wide program to provide information security?

   A. Electronic Communications Privacy Act of 1986

   B. Federal Information Security Management Act of 2002

   C. Identity Theft Penalty Enhancement Act of 2004

   D. Privacy Act of 1974

7. How does Visual Basic differ from BASIC?

   A. BASIC is a high-level language and Visual Basic is low-level.

   B. BASIC is a newer language than Visual Basic.

   C. Visual Basic is an object-oriented language and BASIC is not.

   D. Visual Basic is easy to learn and BASIC is not.

8. The use of a hexadecimal numbering system in computers allows the computer to:

   A. convert small numbers quickly.

   B. represent small amounts of information in a large database.

   C. store data with little room for error.

   D. use less disk space in storing data.

9. What are **advantages** of the Visual Basic language?

   A. Derived directly from COBOL and BASIC

   B. Hexadecimal code understood by the computer

   C. Runs only on Apple computers

   D. Simple, general-purpose, object-oriented

10. What is the decimal representation of the binary number 10001?

    A. 15

    B. 17

    C. 16

    D. 18

11. The **best** way to compare a binary number to a hexadecimal number is to convert:

    A. the binary number to a decimal number and then compare that to the hexadecimal number.

    B. the binary number to a hexadecimal number and compare that to the hexadecimal number.

    C. the hexadecimal number to a binary number and then to a decimal value to compare.

    D. the hexadecimal number to a decimal number and compare that to the binary number.

12. Which act gives law enforcement the ability to monitor individual's email and web activity?

   A. Provide Appropriate Tools Required to Intercept and Obstruct Terrorism (PATRIOT) Act of 2001

   B. Right to Financial Privacy Act of 1978

   C. Consumer Credit Reporting Reform Act of 1996

   D. Privacy Act of 1974

13. When comparing third and fourth generation computers, which statement **best** summarizes the comparison?

   A. Fourth generation computers completely overhauled the third generation use of vacuum tubes.

   B. Fourth generation computers function primarily the same way as third generation computers with the exception of the larger size of computing boards.

   C. The inventions of integrated circuits in third generation computers led to the development of microprocessors in the fourth generation computers.

   D. Third generation computer's silicon wafers led to a waffle housing of computers and reduced heat generation in fourth generation computers.

14. Which describes a program designed to reproduce itself by copying itself into other programs without the user's knowledge?

   A. A bug

   B. A reproduction

   C. A virus

   D. An infection

15. Which statement **best** explains the conversion of the binary number 1010 to a decimal number?

   A. 1010 in binary equals 20 because 10 plus 10 equals 20 and binary means the value of every two numbers added together gives the decimal number.

   B. 1010 in binary requires you to take the digits and add them together and raise them to the 10th power to get a decimal value so 2^{10} is 1024 in decimal value.

   C. Moving from left to right, the first 1 is 2^3; the first 0 is 2^2; the second 1 is 2^1 and second 0 is 2^0 therefore the binary number is equal to the decimal number 10 because $2^3 = 8$ and $2^1 = 2$ and 8 plus 2 equals 10.

   D. Moving from left to right, the first 1 is 2^4; the first 0 is 2^3; the second 1 is 2^2 and second 0 is 2^1 therefore the binary number equals to the decimal number 10 because $2^4 = 16$ and $2^2 = 2$ and 16 plus 4 equals 20.

16. What is the binary representation of the decimal 42?

   A. 101011

   B. 1000011

   C. 110011

   D. 101010

17. A computer program that stores the names of 5,000 customers for a business would **most likely** be written in what language?

   A. BASIC

   B. COBOL

   C. Pascal

   D. SQL

18. Jamie is careful to use non-offensive language and to be considerate of the feelings of others when she sends email messages. What does this behavior exemplify?

   A. Information age

   B. Netiquette

   C. Online Profiling

   D. Privacy

19. How would a programming language that allows programs to run on any operating system be classified?

    A. High level

    B. Low level

    C. Medium level

    D. Very low level

20. How would a programming language composed of hexadecimal numbers that will only run on an IBM computer be classified?

    A. High level

    B. Low level

    C. Medium level

    D. Very high level

21. Using a program to record transactions, phone calls and other personal information is what type of ethical consideration?

    A. Netiquette

    B. Online Profiling

    C. Phishing

    D. Privacy

22. The need to perform what tasks led to the development of the first mechanical devices?

    A. Mathematical computations

    B. Decision structures

    C. Logic

    D. Sequencing

23. Which act requires commercial websites that collect personal information from children under the age of 13 to obtain parental consent?

    A. Electronic Communications Privacy Act of 1986

    B. Children's Online Privacy Protection Act of 1988 (COPPA)

    C. Right to Financial Privacy Act of 1978

    D. Consumer Credit Reporting Reform Act of 1996

24. What is the decimal representation of the binary number 1100?

    A. 12

    B. 9

    C. 10

    D. 11

25. What is the primary numbers system used in computers?

    A. Base

    B. Binary

    C. Decimal

    D. Hexadecimal

26. Which law requires that a government authority have a subpoena, summons, or search warrant to access an individual's financial records?

    A. Fair Use Act of 2007

    B. Right to Financial Privacy Acts of 1978

    C. Electronic Freedom of Information Act of 1996

    D. Fair Credit Reporting Act of 1970

27. The information posted on the Social Security Administration website for public view and access is in compliance with which legislation?

    A. Electronic Communications Privacy Act of 1986

    B. Electronic Freedom of Information Act of 1996

    C. Privacy Act of 1974

    D. Safety and Freedom through Encryption Act of 1999

28. What characteristic of electro-mechanical devices positively impacted their success?

    A. Binary numbers

    B. Electricity use

    C. Logic patterns

    D. Magnetic tape use

29. What language does the code in this example represent?

```
fib:
        mov edx, [esp+8]
        cmp edx, 0
        ja @f
        move ax, 0
```

    A. Assembly language

    B. C#

    C. Machine Language

    D. Visual Basic

30. Which is a netiquette guideline?

    A. Never change your password.

    B. Access the account of another user.

    C. Do not attempt to access the account of another user without authorization.

    D. Share your password.

31. The Stepped Reckoner was never mass-produced because:

    A. no investor saw a need for these types of devices.

    B. the raw materials in mechanical devices were hard to find.

    C. it broke when used causing cost production issues.

    D. it frequently jammed or malfunctioned, causing data reliability issues.

32. Why were magnetic tapes used to replace punch cards in second generation computers?

    A. Increased computer memory

    B. Increased cost of production

    C. Increased manual labor

    D. Increased reliability

33. Which act gives individuals the right to see information maintained about them?

    A. Electronic Communications Privacy Act of 1986

    B. Federal Information Security Management Act of 2002

    C. Consumer Credit Reporting Reform Act of 1996

    D. Privacy Act of 1974