## Grade 10 | Number System | MCQ Paper

1. Which of the following octal numbers is equivalent to decimal 79 ?
(2015)
1) 1178
2) 10178
3) $711_{8}$
4) $7110_{8}$
2. Which of the following formats are used in computers to store data?
(2015)
1) Binary
2) Hexa-decimal
3) Decimal
4) Octal
3. Which of the following decimal numbers is equivalent to binary number $110111_{2}$ ?
1) 55
2) 63
3) 110
4) 118
4. Which of the following represents the ascending order of the four numbers $10001111_{2}, 170_{8}, 46687_{10}, 2 \mathrm{~F}_{16}$ ?
1) $170_{8}, 10001111_{2}, 2 \mathrm{~F}_{16}, 46687_{10}$
(2015)
2) $10001111_{2}, 46687_{10}, 170_{8}, 2 \mathrm{~F}_{16}$
3) $2 \mathrm{~F}_{16}, 170_{8}, 10001111_{2}, 46687_{10}$
4) $46687_{10}, 10001111_{2}, 170_{8}, 2 \mathrm{~F}_{16}$
5. Which of the file/files given in Table 1 could be stored in a USB storage device having a total capacity of 4 GB so that a least amount of unused space is left on the device?
(2015)

Table 1

| File name | Size |
| :---: | :---: |
| A. doc | 300 MB |
| B. jpg | 740 MB |
| C. mp 4 | 3 GB |

1) A.doc and B.jpg only
2) C.mp4 only
3) B.jpg and C.mp4 only
4) All of them
6. Which of the following is approximately equivalent to one Terabyte (TB)?
(2016)
1) $1 \times 10^{6} \mathrm{MB}$
2) $1 \times 10^{6} \mathrm{~GB}$
3) $1 \times 10^{6} \mathrm{~KB}$
4) $1 \times 10^{9}$ bytes
7. In the ASCII code, Character ' $Q$ ' is represented as $1010001_{2}$. What is the option that represents the word 'PUT' in binary form?
(2016)
1) $1010000_{2} \quad 1010101_{2} \quad 1010100_{2}$
2) $1010001_{2} \quad 1010101_{2} \quad 1010100_{2}$
3) $1010000_{2} \quad 1010011_{2} \quad 1010111_{2}$
4) $1010101_{2} \quad 1010100_{2} \quad 1010011_{2}$
8. Consider the following four numbers presented in different number systems.

## $11110011_{2}, \mathrm{~F} 3_{16}, 363_{8}, 243_{10}$

Which of the following statements is true regarding the above four numbers?

1) $\mathrm{F} 3_{16}$ is larger than other three numbers.
2) $363_{8}$ is smaller than other three numbers.
3) Four numbers are equal to each other.
4) Four numbers are not equal to each other.
9. What is the decimal equivalent to octal 64 ?
(2016)
1) 48
2) 52
3) 62
4) 68
10. Which of the following decimal numbers is equivalent to the binary number $01011_{2}$ ? (2017)
1) 11
2) 35
3) 15
4) 10
11. Which of the following octal numbers is equivalent to the binary number $111110110010_{2}$ ? (2017)
1) $7552_{8}$
2) $2667_{8}$
3) $2557_{8}$
4) $7662_{8}$
12. The hexadecimal equivalent of $11101011000111010_{2}$ is:
(2017)
1) $\mathrm{DD}_{63} \mathrm{~A}_{16}$
2) $1 \mathrm{D} 63 \mathrm{~A}_{16}$
3) $1 \mathrm{D} 33 \mathrm{~A}_{16}$
4) $1 \mathrm{D} 631_{16}$
13. Consider the following statements.

A $-2 \mathrm{~B}_{16}$ is equivalent to $53_{8}$
B $-43_{10}$ is equivalent to $101011_{2}$
C $-101011_{2}$ is equivalent to $53_{8}$
Which of the above statements are true?

1) A and B only
2) B and C only
3) A and C only
4) All A, B and C
14. In which form is data and instructions stored in a computer?
1) binary
2) hexadecimal
3) decimal
4) octal
15. Which of the following is the octal equivalent of decimal $156_{10}$ ?
1) $121_{8}$
2) $234_{8}$
3) $574_{8}$
4) $770_{8}$
16. Which of the following is the binary equivalent of hexadecimal $2 \mathrm{~B}_{16}$ ?
1) $00101011_{2}$
2) $01001001_{2}$
3) $10010100_{2}$
4) $10110011_{2}$
17. Which of the following lists $10011001_{2}, 113_{8}, 160_{10}$ and $1 \mathrm{~A}_{16}$ in the ascending order?
1) $10011001_{2}, 113_{8}, 160_{10}, 1 \mathrm{~A}_{16}$
2) $160_{10}, 1 \mathrm{~A}_{16}, 10011001_{2}, 113_{8}$
3) $160_{10}, 1 \mathrm{~A}_{16}, 113_{8}, 10011001_{2}$
4) $1 \mathrm{~A}_{16}, 113_{8}, 10011001_{2}, 160_{10}$
18. In which of the following number systems, is the number ' 800 ' a valid number?
(2018)
1) decimal only
2) decimal and hexadecimal only
3) decimal and octal only
4) octal only
19. Which of the following statements are true?

A - Binary form is used to store data and instructions in computers.
B - 945 is a valid number both in the octal and hexadecimal number systems.
$\mathrm{C}-412_{8}$ is equivalent to $100001010_{2}$.

1) A only
2) A and C only
3) B only
4) all A, B and C
20. Which of the following shows the given storage components in descending order of access speed?
1) cache memory, main memory, register, hard disk
(2019)
2) hard disk, cache memory, register, main memory
3) register, cache memory, main memory, hard disk
4) register, main memory, hard disk, cache memory
21. If character ' $E$ ' is represented in the ASCII table as $69_{10}$, what is the binary representation of character ' G ' in the ASCII table?
(2019)
1) 1000110
2) 1000111
3) 1001000
4) 1001001
22. Which of the following represents the units of measurements of data in computer systems in the ascending order of their size?
1) Bit, Byte, Kilobyte, Terabyte
2) Byte, Bit, Kilobyte, Terabyte
3) Megabyte, Kilobyte, Bit, Byte
4) Terabyte, Gigabyte, Megabyte, Kilobyte
23. Which of the following shows the storage devices of a desktop computer in descending order of storage capacity?
(2020)
1) Register, Cache memory, Hard disk
2) Hard disk, RAM, Register
3) RAM , Register, Cache memory
4) RAM, Cache memory, Hard disk
24. Which of the following represents the given four numbers in ascending order?
1) $64_{16}, 226_{8}, 200_{10}, 101011_{2}$
2) $101011_{2}, 64_{16}, 226_{8}, 200_{10}$
3) $101011_{2}, 64_{16}, 200_{10}, 226_{8}$
4) $200_{10}, 226_{8}, 101011_{2}, 64_{16}$
