



# BRAINWARE UNIVERSITY

Term End Examination 2022

Programme – MCA-2020/MCA-2021

Course Name – Fundamental of Computers & Emerging Technologies

Course Code - MCA101

( Semester I )

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

## Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

(i) Identify Boolean algebra is also known as

- |                       |                      |
|-----------------------|----------------------|
| a) Counting algebra   | b) Switching algebra |
| c) Transistor algebra | d) Gate algebra      |

(ii) Identify A binary digit is called a

- |           |              |
|-----------|--------------|
| a) byte   | b) character |
| c) number | d) bit       |

(iii) Which of the following is the 1's complement of 10?

- |       |        |
|-------|--------|
| a) 00 | b) 01  |
| c) 11 | d) 011 |

(iv) Write the Full form of WAN

- |                       |                      |
|-----------------------|----------------------|
| a) World Area Network | b) Wide Area Network |
| c) Web Area Network   | d) None of these     |

(v) Determine the participating computers in a network are referred as

- |            |            |
|------------|------------|
| a) Clients | b) Servers |
| c) Nodes   | d) System  |

(vi) Predict the Topology that involves Tokens.

- |         |         |
|---------|---------|
| a) Star | b) Ring |
| c) Bus  | d) Mesh |

(vii) Select which of this is not a network edge device?

- |           |               |
|-----------|---------------|
| a) PC     | b) Smartphone |
| c) Server | d) Switch     |

(viii) Distinguish Bluetooth is an example of

- |                          |                              |
|--------------------------|------------------------------|
| a) Personal Area Network | b) Local Area Network        |
| c) Wide Area Network     | d) Metropolitan Area Network |

- (ix) Choose the fullform of URL  
 a) Universal Resource Locator  
 c) Universal Radio Locator  
 b) Uniform Resource Locator  
 d) Unified Reserve location
- (x) Choose the correct format of Email address?  
 a) name@website@info  
 c) www.nameofebsite.com  
 b) name@website.info  
 d) name.website.com
- (xi) Validate which is used to improve the agent performance?  
 a) Perceiving  
 c) Observing  
 b) Learning  
 d) None of these
- (xii) Validate which agent deals with happy and unhappy states?  
 a) Simple reflex agent  
 c) Learning agent  
 b) Model based agent  
 d) Utility based agent
- (xiii) Define Virus  
 a) Very Important Resource Under Search  
 c) Verify Interchange Result Until Source  
 b) Virtual Information Resource Under Seize  
 d) Very Important Record User Searched
- (xiv) Define following device can store large amount of the data?  
 a) Floppy Disk  
 c) CD-ROM  
 b) Hard Disk  
 d) Zip Disk
- (xv) In operating system, each process has its own identity  
 a) address space and global variables  
 c) pending alarms, signals and signal handlers  
 b) open files  
 d) All of these

**Group-B**

(Short Answer Type Questions)

3 x 5=15

2. Convert ACD9 in Hexadecimal to Octal (3)
3. Write a short note on full Adder (3)
4. Explain FSK and PSK (3)
5. Write a short note on ML. (3)
6. Write a short note on Operating system (3)

**OR**

Write a short note on VIRUS (3)

**Group-C**

(Long Answer Type Questions)

5 x 6=30

7. Define the application of Machine Learning. (5)
8. Explain the concept of LAN and MAN and WAN (5)
9. Explain the different modes of network communications. (5)
10. Explain the different types of Operating system. (5)
11. Write a short note on Subtractor (5)
12. Describe Primary momory and Secoundary memory? (5)

**OR**

Describe various Input devices in detail. (5)

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