

Sample

The Open University of Sri Lanka
B.Sc. (IT) Degree Programme – 2023/2024
Department of Computer Science
COU 3300 – Computer Organization and Communication
No Book Test 1
Duration: One hour only (1 hour)



Date: 30.03.2024

Time: 09.00 a.m. – 10.00 a.m.

ANSWER ALL QUESTIONS

Index Number:.....

1. Complete the following Table. (10 Marks)

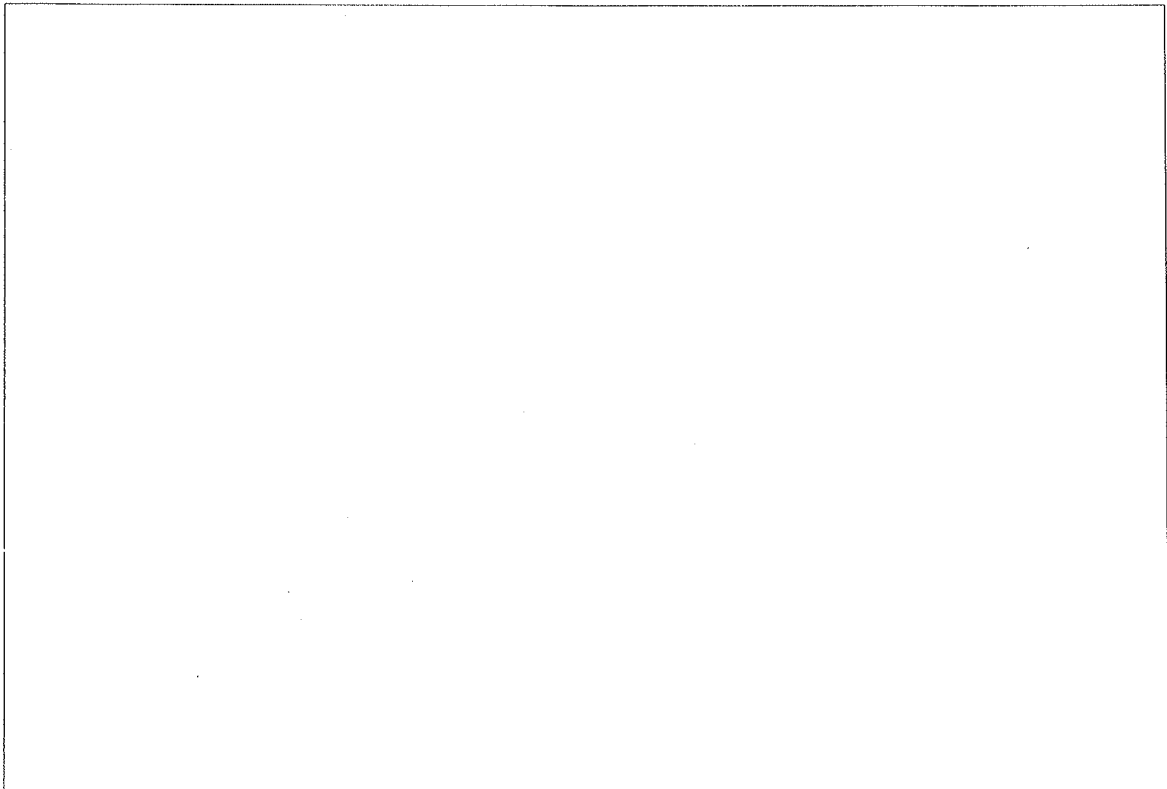
Generations of Computer	Technology
First Generation	
Second Generation	
Third Generation	
Fourth Generation	
Fifth Generation	

2. Briefly explain two (02) **sub-systems** of the Computer System. (10 marks)

3. State four (04) categories of computers which are classified based on size. (08 Marks)

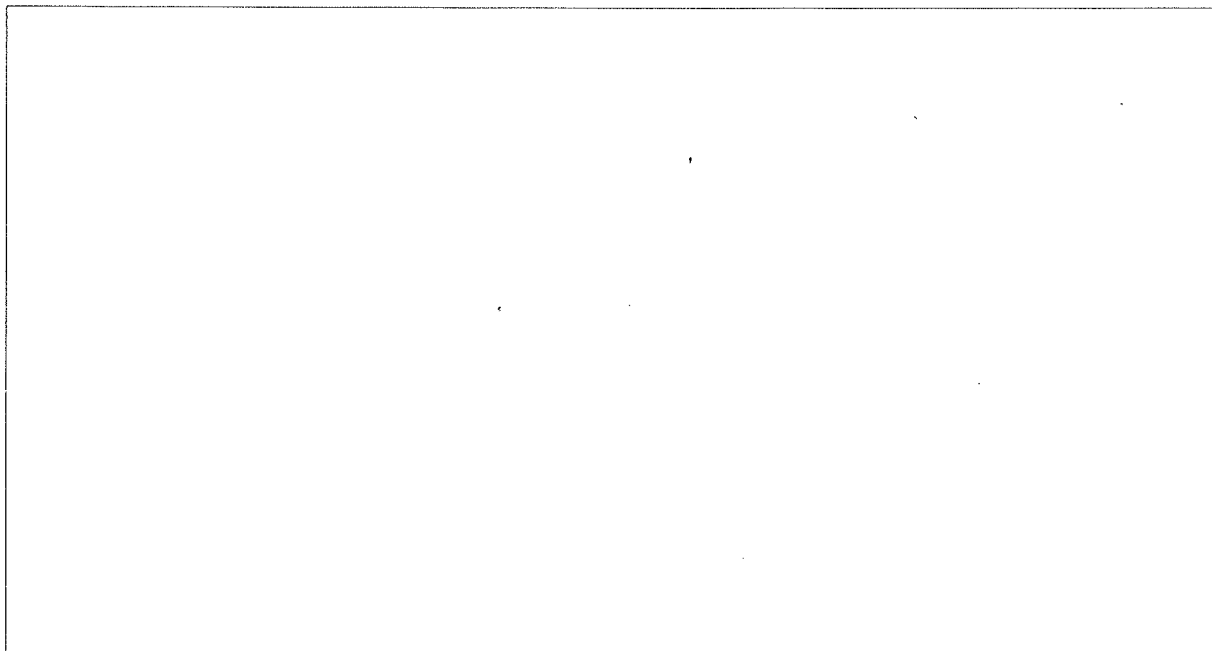
i.	.....
ii.	.....
iii.	.....
iv.	.....

4. Draw the architecture of a computer. (12 Marks)

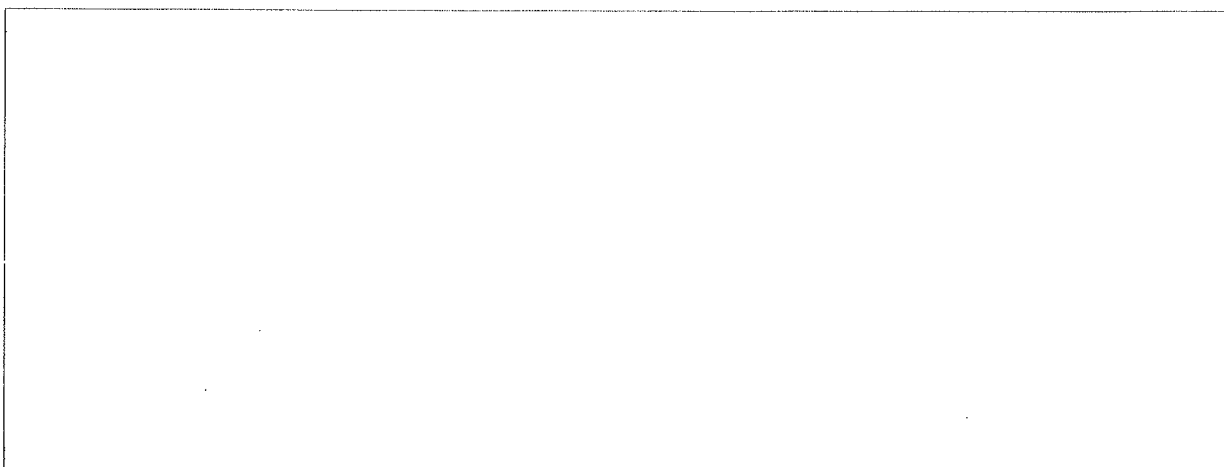


5. Convert following hexadecimal number to binary numbers.

i) $7C_{16}$ (10 Marks)



6. State the De Morgan's 2nd Theorem. (08 Marks)



7. What are the four (04) types of shift registers? (08 Marks)

i.	.....
ii.	.....
iii.	.....
iv.	.....

8. Simplify following Boolean expression using K-map. (16 Marks)

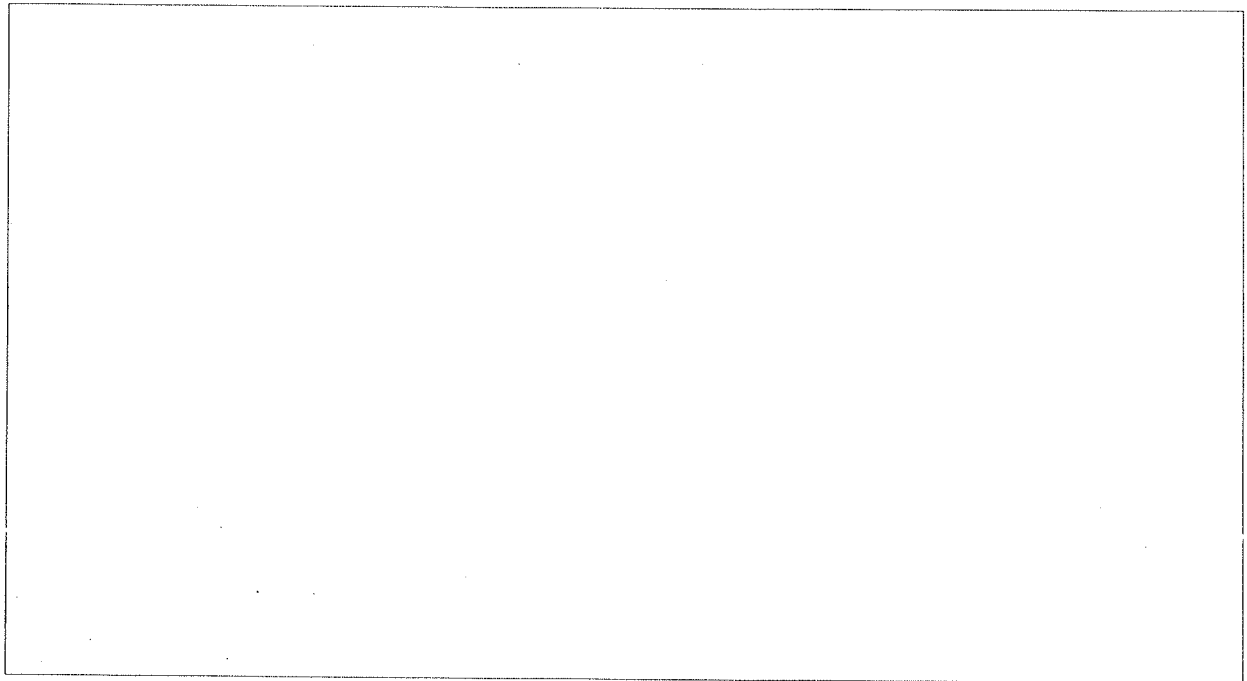
$$F = \bar{A}\bar{B}CD + \bar{A}BCD + \bar{A}\bar{B}C\bar{D} + \bar{A}BC\bar{D}$$



9. Name four (04) types of Combinational Logic Circuit. (08 Marks)

i.	.....
ii.	.....
iii.	.....
iv.	.....

10. Draw the block diagram of sequential logic. (10 Marks)



**** End of the Paper****

