

1/MDC-112 Syllabus-2023

2024

(December)

FYUP : 1st Semester Examination

MULTIDISCIPLINARY COURSE

(Fundamentals of Computer Systems)

MDC-112

Marks : 56

Time : 2½ hours

*The figures in the margin indicate full marks
for the questions*

SECTION—A

(Short Answer-type Questions)

Answer any four questions : 3×4=12

- 1. What is machine language? Explain.**
- 2. Differentiate between primary memory and secondary memory.**
- 3. Give the diagram of any three gates.**

D25/897

(Turn Over)

(2)

4. What do you mean by dual and complement of a Boolean expression?
5. What is an operating system? Name four operating systems.
6. What is LAN? Explain with a suitable diagram.

SECTION—B

(Descriptive Answer-type Questions)

Answer any four questions : 11×4=44

7. Explain in brief any five input devices and any six output devices of a computer. 11
8. Explain the following : 3+3+2½+2½=11
 - (a) Assembly language
 - (b) High-level language
 - (c) Compiler
 - (d) Interpreter
9. Perform the following : 2+2+3+4=11
 - (a) $(1010)_2 + (1110)_2$
 - (b) $(1110)_2 - (1011)_2$
 - (c) $(1101)_2 \times (1001)_2$
 - (d) $(110011)_2 / (101)_2$

(3)

10. Perform the following number system conversions : $2+3+3+3=11$

(a) $(134)_{10} = (?)_2$

(b) $(10101010)_2 = (?)_{10}$

(c) $(734)_8 = (?)_{16}$

(d) $(4BC)_{16} = (?)_2$

11. Explain the following : $4+4+3=11$

(a) GUI and non-GUI operating systems

(b) Open source and non-open source operating systems

(c) Batch operating system

12. Explain the following : $4+4+3=11$

(a) MAN

(b) WAN

(c) ARPANET
