

2020

ELECTRONICS — GENERAL

Fourth Paper

(Group - A)

Full Marks : 50

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

SET - 2

Answer **question no. 1** and **any four** questions from the rest, taking at least **one** from each of the **Unit - I** and **Unit - II**.

1. Answer briefly **any five** of the following questions : 2×5
- (a) What is ALU?
 - (b) What is the importance of the Zero flag?
 - (c) What is the role of Programme Counter (PC)?
 - (d) What is an instruction cycle?
 - (e) How does a DVD drive work?
 - (f) What is a compiler?
 - (g) What is meant by function in C?
 - (h) Differentiate between Machine and Assembly Languages.

Unit - I

(8085 Microprocessor)

2. State the functions of (a) the Accumulator, (b) Stack pointer (SP) (c) Instruction register (d) Instruction decoder and (e) Temporary registers. 2×5
3. What is a Flag register? Name the different flags and explain their roles in 8085 microprocessor programming. Name three instructions which don't affect carry flag. 2+5+3
4. Explain the meaning of the following instructions : 2×5
- (a) DCX H
 - (b) ADD M
 - (c) DAD D

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- (d) XCH G
- (e) ADI 01H

5. Write an assembly language programme with appropriate comments to add ten 8 bit numbers stored in a data array with a provision for carry. 10

Unit - II

(Computer Programming)

6. (a) Name the main parts of a personal computer (PC) and discuss in brief the roles played by any two parts.
- (b) Name two magnetic memory devices used in PC.
- (c) What does UPS stands for and mention its role? (2+2+2)+2+2
7. (a) Why are loops required in programming? What are the different loops used in C programming?
- (b) What is two-dimensional array? How a (3×3) matrix is declared, elements are read and printed in C? (2+2)+(1+5)
8. (a) What is the role of header files in C programme? Name two header files.
- (b) Write a C programme which compares two decimal real numbers and prints the larger number onto the monitor screen. (2+2)+6
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