Time : Three hours   Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

1. Define System Program.

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2. What is meant by an algorithm?

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3. Mention (any two) basic features of Assembly Language program.

    ö£õÔ ö©õÈ { µ¼ß A i ¨ £øh ußø©ø¯ (H÷uÝ® Cµs i øÚ) GÊ x P.

4. What is the principle of System programming?

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5. Give (any two) tasks of a translator.

    ö©õÈ ö£¯°¨¦ { µ¼ß, £o U Phzvøú (H÷uÝ® Cµs k) GÊ x P.

6. List the functions of the analysis phase of a compiler.

    öuõS¨ ¤° À E Òí 'Analysis Phase'&Cß ö\¯ÀPøÍ GÊ x P.

7. What are the duties of the Loader?

HØÔß Phø©PøÍ GÊ x P.

8. What is meant by Relocatable program?

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9. Give the importance of program testing.

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10. What is meant by debugging?

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PART B — (5 × 7 = 35 marks)

Answer ALL questions.

All questions carry equal marks.

11. (a) Describe the machine model of a computer system.

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Or

(b) What makes the difference between executing a high level language program from the programmer's view and the system software view?

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12. (a) How data structures are used by pass 1 of the assembler?

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Or

(b) How Macro is defined and used? Explain with an example.

Macro Gß£uøÚ Áøµ¯Özx AuØ E£÷¯õP¨£kzx® •øÓø¯ Euõµnzxhß ÂíUS.

13. (a) Explain the concept of Top Down parsing.

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Or

(b) Describe the management of dynamic storage allocation.

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14. (a) Discuss :

(i) Link and go scheme

(ii) Link load and go scheme.

Â Á> :

(i) Cøn ¨¦ ©ØÖ® ö\À Aø©¨¦.

(ii) Cøn ¨¦ ©ØÖ® H¼Ô C¯US® Aø©¨¦.

Or

(b) Explain the concept of Linkage Editing.

Cøn ¨¦ £v¨¤zuø»¨ £ØÔ GÊ x P.

15. (a) Explain the model of a software tool with a diagram.

    ö©ßö£õ¸ Ò P¸Âz öuõS¨¤ß ©õv>ø¯ Áøµ£hzxhß Â Á>.

                    Or

(b) Explain the concept of debug monitors.

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PART C — (3 × 15 = 45 marks)

Answer any THREE questions.

All questions carry equal marks.

16. Discuss on the components of system software.

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17. How to design a two pass assembler?

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18. What is meant by code optimisation? Discuss it with examples.

    SÔ• øÓEP¯£õUP® GßÓõÀ GßÚ? Euõ¿n zxhß Â Í USP.

19. How to design the Linkage editor for IBM PC?

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20. Discuss on Interpreters and program generators.

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