

(2)

Group - B

5. What is system life cycle? Discuss different phases of waterfall model. What are the drawbacks of that model?

7+3=10

6. Differentiate module coupling and module cohesion. Discuss different types of module coupling. What is technical feasibility?

3+4+3=10

7. (a) Discuss the various factors affecting a logical system design.

5

(b) Compare DFD and ERD.

5

P-II (1+1+1)G/13

2013

COMPUTER SCIENCE (General)

Fifth Paper

Full Marks : 50

Time : Two Hours

The figures in the margin indicate full marks.

Answer any five questions taking at least two from each group.

Group - A

1. Compare the following :

5×2=10

(a) SRAM and DRAM

(b) Virtual and main memories.

2. (a) Discuss the need for having various types of addressing modes in a single processor.

7

(b) How does the number of registers in a processor affect its performance?

3

3. What is system bus? Describe the interaction of computer units via system bus.

Illustrate the format of an instruction for the processor. What are the different steps of a instruction cycle?

5+5

4. Write short notes on the following :

5×2=10

(a) External storage devices

(b) DFD

P.T.O.

(2)

4. What do you mean by the addressing of Microprocess? Discuss immediate and Base Addressing mode. Compare Register direct and Register Indirect addressing modes. $2+2\frac{1}{2}+2\frac{1}{2}+1\frac{1}{2}+1\frac{1}{2}=10$

5. What do you understand by primary and secondary memory? What are the differences between SRAM and DRAM? Whether hard disk drive (HDD) of a computer is primary or secondary. $5+4+1=10$

6. What are the different steps of waterfall model? Discuss its advantages and disadvantages. $6+4=10$

7. Differentiate module coupling and module cohesion. Discuss different types of module coupling. What is technical feasibility? $3+4+3=10$

P-II(1+1+1)G/14

2014

COMPUTER SCIENCE (General)

Fifth Paper

Full Marks : 50

Time : Two Hours

The figures in the margin indicate full marks.

Answer five questions, from the following.

10×5=50

1. What is the role of cache memory? How the cache memory improves the overall execution speed?

What do you mean by property of locality of reference?

Define hit ratio and missratio. $(2+3)+(3+2)=10$

2. (i) What are Register Reference and Memory reference instructions? Explain. $2+2=4$

(ii) What are 'Operand' and 'Opcode' of an instruction? $1\frac{1}{2}\times 2=3$

(iii) Explain with example 0-address, 1-address and 2-address instructions. 3

3. What is virtual memory? What logical and physical address? What do page fault occur? $5+3+2=10$

P.T.O.

(2)

4. (a) Explain memory hierarchy used in a typical computer system. 5
(b) Explain fetch-decode-execute cycle. 5
5. (a) What is feasibility ? Discuss different types of feasibility for a system development. 6
(b) What is cost benefit analysis ? 4
6. Draw an ERD of a good transport company. 10
7. Write notes on (*four*) : $4 \times 2\frac{1}{2} = 10$
(a) Data gathering techniques.
(b) Virtual memory.
(c) Flow Charts and structured charts.
(d) Coupling.
(e) User Interface.
(f) Testing Validation.

P-II (1+1+1) G /15

2015

COMPUTER SCIENCE (General)

Fifth Paper

Full Marks : 50

Time : Two Hours

The figures in the margin indicate full marks.

Answer any *five* questions.

1. Compare the following : $5 \times 2 = 10$
(a) RAM and ROM
(b) Primary memory and secondary memory.
2. (a) What is the role of registers in a CPU ? Name five general purpose registers with their functions. 6
(b) Illustrate following addressing modes with example. 4
(i) immediate
(ii) indirect
3. (a) Discuss about Logical and Physical design on design and mode ling. 8
(b) What do you mean by tri-state logic ? 2

P.T.O.