

(2)

- (c) What is Real time operating system? 2
(d) Differentiate between ++a and a++. 2
6. (a) What is 'size of' operator? 2
(b) Write the statement using conditional operator—
if (a > b)
 x = a;
else
 x = b; 2
(c) Write an algorithm for disk scheduling. 6
7. Write a C Program to print fibonacci series along with the sum of the series. 10
8. Write a C Program to find out factorial of any number. 10

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

2013

COMPUTER SCIENCE (General)

Fourth Paper

Full Marks : 50

Time : Two Hours

The figures in the margin indicate full marks.

Answer any five questions : 5×10=50

2. (a) What is Round Robin Scheduling? 2
(b) What is deadlock? 2
(c) Describe four ways to prevent deadlock by observing the condition required for deadlock. 6
2. Write a C program to implement stack. 10
3. Write a C program to print the series the sum of the series—
 $1 + x/1! + x^2/2! + x^3/3! + \dots$ 10
4. (a) Define getchar () & putchar (). 3
(b) Explain with an example conditional operator. 4
(c) Difference between % C & % S and % U & % X. 3
5. (a) What is demand paging? 3
(b) In C what is difference between static and global variable. 3

P.T.O.

2014

COMPUTER SCIENCE (General)

Fourth 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. Write a program to add first n odd numbers using

(i) for loop

(ii) while loop.

2½×2=5

Hence explain the difference of execution of 'for loop' and 'while loop'.

3

Modify the same program with do while loop. 2

2. (i) Explain the use of call by 'value' and call by 'reference' with programming code in C.

(ii) Explain with example the unary and binary operators in C.

5+5=10

3. (i) What is address of a variable ? What is 'pointer' and what is 'pointer-to-pointer' ?

P.T.O.

(2)

(ii) Write a C program to access the elements of an array (two dimensional) using pointer variable.

(iii) What is void function ? $(1+1+1)+5+2=10$

4. (i) What are the functions of an operating system ?

(ii) Do you think of a computer system without an OS ? Justify.

Explain the terms 'multitasking', 'multiuser' and 'time sharing'.

(iii) Compare the features of windows and unix operating system. $2+2+3+3=10$

5. (i) What do you mean by CPU scheduling ?

Compare the advantages and disadvantages of shortest job first and round-robin scheduling.

(ii) What is a Semaphore Variable ? What do you mean by 'Critical Region' ?

Explain how a Critical Region problem can be solved with semaphore variable. $(2+3)+(1+1+3)=10$

6. (i) What is 'Deadlock' situation ?

(ii) Write down the conditions of a deadlock situation.

(iii) How deadlock can be prevented ? $2+6+2=10$

(3)

7. Write short notes on (any two) : $5 \times 2 = 10$

(i) Multiprogramming.

(ii) Page replacement algorithms FIFO and NRU.

(iii) Virtual Memory.

(iv) Cache Memory.

(2)

6. Write short notes on (any two) : $5 \times 2 = 10$

- (i) Resource allocation Graph.
- (ii) Demand paging.
- (iii) Pointer in C.
- (iv) Structure and Union in C.

7. (a) Discuss different type of if-then-else statement using C code.

(b) What is multiway branching ? Explain with example. $6 + 4 = 10$

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

2015

COMPUTER SCIENCE (General)

Fourth Paper

Full Marks : 50

Time : Two Hours

The figures in the margin indicate full marks.

Answer any five questions. $10 \times 5 = 50$

1. Discuss operator precedence and associativity in C. What is operator ? $8 + 2 = 10$

2. What is keyword ? What is token ? Discuss different type of C token give example. $2 + 2 + 4 + 2 = 10$

3. Write a C Program to print first 10 fibonacci number. 10

4. What is operating system ? Give example. What is process ? Discuss different state of a processes. $2 + 1 + 2 + 5 = 10$

5. (a) What is CPU scheduling technique ?

(b) Discuss different type of CPU scheduling technique with example.

(c) What do you understand about page replacement techniques ? $2 + 5 + 3 = 10$

P.T.O.