73/2015

Maximum : 200 marks

Time : 1½ hours

PART I

(Each answer shall be limited to one sentence)

A. Write the full form of the following acronyms.

1. CMOS

2. PHIGS

3. EBCDIC

4. TLB

5. XMI

B. Fill in the blanks

6. ——————— part of the I/O instruction indicates the size of the data.

7. We can prevent a class in Java being sub classed by declaring the entire class as ———————

8. ——————— is a memory management scheme that permits the physical address space of a process to be non-contiguous.

9. A register in the microprocessor that keeps track of the results of any arithmetic operation is the ———————.

10. ——————— is an application of a Queue.

11. 1/4 as a binary number would be ———————.

12. A binary number can be converted to be viewed on a 7-segment display by a/an ———————.

13. ——————— refers to the process of loading the basic software into the memory of a computer after power-on.

[P.T.O.]

14. The use of a ———————— array to character strings in C results in saving of data storage space in memory.

15. The ———————— is a constructor which initialize an instance using values of another instance of same type.

16. The number of bit positions in which two code words differ is called ————————.

17. The 'single - mindedness' of a component or module in software design is termed as ————————.

18. The ———————— constraint is specified between two relations and is used to maintain the consistency among tuples in the two relations.

19. The method of adding free nodes in AVAIL list is called ————————

20. A transformation that distorts the shape of an object such that the transformed shape appears as if the object were composed of internal layers that had been caused to slide over each other is called a ————————.

C. Choose the correct answer:

21. If a physical branch address is 5A230 when (CS) = 5200, what will it be if the (CS) are changed to 7800.

    (a)   55230

    (b)   80230

    (c)   71230

    (d)   None of these

22. The Linux command used to change the access permission associated with a file or directory.

    (a)   chfn

    (b)   chmod

    (c)   chgrp

    (d)   chsh

23. Which is the default access modifier of Java?

    (a)   private

    (b)   public

    (c)   default

    (d)   protected

24. Which of the following is a DQL command?

(a) select   (b) drop

(c) Alter   (d) delete

25. Which OSI layer should divide the transmitted bit stream into frames?

(a) Physical   (b) Data Link

(c) Network   (d) Transport

26. Which of the following is a white box testing technique?

(a) Boundary value analysis   (b) Equivalence partitioning

(c) Control structure testing   (d) Graph based testing

27. Which of the following is a divide and conquer method of sorting?

(a) Insertion   (b) Shell

(c) Bubble   (d) Quick

28. In which normal form, the every nonprime attribute A in R is fully functionally dependent on the primary key of R.

(a) First   (b) Second

(c) Third   (d) BCNF

29. Which of the following page replacement algorithm works on the following principle? "Replace the page that will not be used for the longest period of time".

(a) LRU   (b) FIFO

(c) Optimal page replacement   (d) MRU

30. Which of the following is a non emissive display?

(a) Plasma panels   (b) Liquid Crystal Device

(c) Light Emitting Diode   (d) Thin-film electroluminescent displays

$(30 \times 4 = 120)$

73/2015
[P.T.O.]

PART II

Answer the following questions shall be limited to one paragraph

31. Addressing modes of 8086.

32. Exception handling in Java.

33. COCOMO Model.

34. Classing problems of process synchronization.

35. RSA Algorithm.

36. Knapsack problem and solution.

37. Table Normalization.

38. Convert the given expression into postfix expression using algorithm.

    A+B*C^(D*E)/F

    Also evaluate it for A=1, B=8, C=2, D=1, E=4, F=8 using algorithm.　　　　　(8 × 10 = 80)