Test Paper : **III**

Test Subject : **COMPUTER SCIENCE AND APPLICATION**

Test Subject Code : **K-2414**

Test Booklet Serial No. : _____

OMR Sheet No. : _____

Roll No. | | | | | | | | |

(Figures as per admission card)

Name & Signature of Invigilator/s

Signature : _____ Signature : _____

Name : _____ Name : _____

Paper : III

Subject : COMPUTER SCIENCE AND APPLICATION

Time : 2 Hours 30 Minutes Maximum Marks : 150

Number of Pages in this Booklet : **16** Number of Questions in this Booklet : **75**

ಅಭ್ಯರ್ಥಿಗಳಿಗೆ ಸೂಚನೆಗಳು

1. ಈ ಪುಟದ ಮೇಲ್ತುದಿಯಲ್ಲಿ ಒದಗಿಸಿದ ಸ್ಥಳದಲ್ಲಿ ನಿಮ್ಮ ರೋಲ್ ನಂಬರನ್ನು ಬರೆಯಿರಿ.
2. ಈ ಪತ್ರಿಕೆಯು ಬಹು ಆಯ್ಕೆ ವಿಧದ ಎಪ್ಪತ್ತೈದು ಪ್ರಶ್ನೆಗಳನ್ನು ಒಳಗೊಂಡಿದೆ.
3. ಪರೀಕ್ಷೆಯ ಪ್ರಾರಂಭದಲ್ಲಿ, ಪ್ರಶ್ನೆಪುಸ್ತಿಕೆಯನ್ನು ನಿಮಗೆನೀಡಲಾಗುವುದು. ಮೊದಲ5 ನಿಮಿಷಗಳಲ್ಲಿ ನೀವು ಪುಸ್ತಿಕೆಯನ್ನು ತೆರೆಯಲು ಮತ್ತು ಕೆಳಗಿನಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಪರೀಕ್ಷಿಸಲು ಕೋರಲಾಗಿದೆ.
   (i) ಪ್ರಶ್ನೆಪುಸ್ತಿಕೆಗೆ ಪ್ರವೇಶಾವಕಾಶ ಪಡೆಯಲು, ಈ ಹೊದಿಕೆ ಪುಟದ ಅಂಚಿನ ಮೇಲಿರುವ ಪೇಪರ್ ಸೀಲನ್ನು ಹರಿಯಿರಿ. ಸ್ಟಿಕ್ಕರ್ ಸೀಲ್ ಇಲ್ಲದ ಪ್ರಶ್ನೆಪುಸ್ತಿಕೆ ಸ್ವೀಕರಿಸಬೇಡಿ. ತೆರೆದ ಪುಸ್ತಿಕೆಯನ್ನು ಸ್ವೀಕರಿಸಬೇಡಿ.
   (ii) **ಪುಸ್ತಿಕೆಯಲ್ಲಿನ ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ ಮತ್ತು ಪುಟಗಳ ಸಂಖ್ಯೆಯನ್ನು ಮುಖಪುಟದ ಮೇಲೆ ಮುದ್ರಿಸಿದ ಮಾಹಿತಿಯೊಂದಿಗೆ ತಾಳೆ ನೋಡಿರಿ. ಪುಟಗಳು/ಪ್ರಶ್ನೆಗಳು ಕಾಣೆಯಾದ, ಅಥವಾ ದ್ವಿಪ್ರತಿ ಅಥವಾ ಅನುಕ್ರಮವಾಗಿಲ್ಲದ ಅಥವಾ ಇತರ ಯಾವುದೇ ವ್ಯತ್ಯಾಸದ ದೋಷಪೂರಿತ ಪುಸ್ತಿಕೆಯನ್ನು ಕೂಡಲೆ5 ನಿಮಿಷದ ಅವಧಿ ಒಳಗೆ, ಸಂವೀಕ್ಷಕರಿಂದ ಸರಿ ಇರುವ ಪುಸ್ತಿಕೆಗೆ ಬದಲಾಯಿಸಿಕೊಳ್ಳಬೇಕು. ಆ ಬಳಿಕ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ಬದಲಾಯಿಸಲಾಗುವುದಿಲ್ಲ, ಯಾವುದೇ ಹೆಚ್ಚು ಸಮಯವನ್ನೂ ಕೊಡಲಾಗುವುದಿಲ್ಲ.**
4. ಪ್ರತಿಯೊಂದು ಪ್ರಶ್ನೆಗೂ (A), (B), (C) ಮತ್ತು (D) ಎಂದು ಗುರುತಿಸಿದ ನಾಲ್ಕು ಪರ್ಯಾಯ ಉತ್ತರಗಳಿವೆ. ನೀವು ಪ್ರಶ್ನೆಯ ಎದುರು ಸರಿಯಾದ ಉತ್ತರದ ಮೇಲೆ, ಕೆಳಗೆ ಕಾಣಿಸಿದಂತೆ ಅಂಡಾಕೃತಿಯನ್ನು ಕಪ್ಪಾಗಿಸಬೇಕು.
   ಉದಾಹರಣೆ: (A) (B) ● (D)
   (C) ಸರಿಯಾದ ಉತ್ತರವಾಗಿದ್ದಾಗ.
5. ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಗಳನ್ನು, **ಪತ್ರಿಕೆIII ಪುಸ್ತಿಕೆಯೊಳಗೆ ಕೊಟ್ಟಿರುವ** OMR **ಉತ್ತರ ಹಾಳೆಯಲ್ಲಿ ಮಾತ್ರವೇ ಸೂಚಿಸತಕ್ಕದ್ದು.** OMR ಉತ್ತರ ಹಾಳೆಯಲ್ಲಿನ ಅಂಡಾಕೃತಿ ಹೊರತುಪಡಿಸಿ ಬೇರೆ ಯಾವುದೇ ಸ್ಥಳದಲ್ಲಿ ಗುರುತಿಸಿದರೆ, ಅದರ ಮೌಲ್ಯಮಾಪನ ಮಾಡಲಾಗುವುದಿಲ್ಲ.
6. OMR ಉತ್ತರ ಹಾಳೆಯಲ್ಲಿ ಕೊಟ್ಟ ಸೂಚನೆಗಳನ್ನು ಜಾಗರೂಕತೆಯಿಂದ ಓದಿರಿ.
7. ಎಲ್ಲಾ ಕರಡು ಕೆಲಸವನ್ನು ಪುಸ್ತಿಕೆಯ ಕೊನೆಯಲ್ಲಿ ಮಾಡತಕ್ಕದ್ದು.
8. ನಿಮ್ಮ ಗುರುತನ್ನು ಬಹಿರಂಗಪಡಿಸಬಹುದಾದ ನಿಮ್ಮ ಹೆಸರು ಅಥವಾ ಯಾವುದೇ ಚಿಹ್ನೆಯನ್ನು, ಸಂಗತವಾದ ಸ್ಥಳ ಹೊರತು ಪಡಿಸಿ, OMR ಉತ್ತರ ಹಾಳೆಯ ಯಾವುದೇ ಭಾಗದಲ್ಲಿ ಬರೆದರೆ, ನೀವು ಅನರ್ಹತೆಗೆ ಬಾಧ್ಯರಾಗಿರುತ್ತೀರಿ.
9. ಪರೀಕ್ಷೆಯು ಮುಗಿದನಂತರ, ಕಡ್ಡಾಯವಾಗಿ OMR ಉತ್ತರ ಹಾಳೆಯನ್ನು ಸಂವೀಕ್ಷಕರಿಗೆ ನೀವು ಹಿಂತಿರುಗಿಸಬೇಕು ಮತ್ತು ಪರೀಕ್ಷಾ ಕೊಠಡಿಯ ಹೊರಗೆ OMR ನ್ನು ನಿಮ್ಮೊಂದಿಗೆ ಕೊಂಡೊಯ್ಯ ಕೂಡದು.
10. ಪರೀಕ್ಷೆಯ ನಂತರ, ಪರೀಕ್ಷಾ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ಮತ್ತು ನಕಲು OMR ಉತ್ತರ ಹಾಳೆಯನ್ನು ನಿಮ್ಮೊಂದಿಗೆ ತೆಗೆದುಕೊಂಡು ಹೋಗಬಹುದು.
11. **ನೀಲಿ/ಕಪ್ಪು ಬಾಲ್‌ಪಾಯಿಂಟ್ ಪೆನ್ ಮಾತ್ರವೇ ಉಪಯೋಗಿಸಿರಿ.**
12. **ಕ್ಯಾಲ್ಕುಲೇಟರ್ ಅಥವಾ ಲಾಗ್ ಟೇಬಲ್ ಇತ್ಯಾದಿಯ ಉಪಯೋಗವನ್ನು ನಿಷೇಧಿಸಲಾಗಿದೆ.**
13. **ಸರಿ ಅಲ್ಲದ ಉತ್ತರಗಳಿಗೆ ಋಣ ಅಂಕ ಇರುವುದಿಲ್ಲ.**

Instructions for the Candidates

1. Write your roll number in the space provided on the top of this page.
2. This paper consists of seventy five multiple-choice type of questions.
3. At the commencement of examination, the question booklet will be given to you. In the first 5 minutes, you are requested to open the booklet and compulsorily examine it as below :
   (i) To have access to the Question Booklet, tear off the paper seal on the edge of this cover page. Do not accept a booklet without sticker-seal and do not accept an open booklet.
   (ii) **Tally the number of pages and number of questions in the booklet with the information printed on the cover page. Faulty booklets due to pages/questions missing or duplicate or not in serial order or any other discrepancy should be got replaced immediately by a correct booklet from the invigilator within the period of 5 minutes. Afterwards, neither the Question Booklet will be replaced nor any extra time will be given.**
4. Each item has four alternative responses marked (A), (B), (C) and (D). You have to darken the oval as indicated below on the correct response against each item.
   Example : (A) (B) ● (D)
   where (C) is the correct response.
5. Your responses to the question of Paper III are to be indicated in the **OMR Sheet kept inside the Booklet**. If you mark at any place other than in the ovals in OMR Answer Sheet, it will not be evaluated.
6. Read the instructions given in OMR carefully.
7. Rough Work is to be done in the end of this booklet.
8. If you write your name or put any mark on any part of the OMR Answer Sheet, except for the space allotted for the relevant entries, which may disclose your identity, you will render yourself liable to disqualification.
9. You have to return the test OMR Answer Sheet to the invigilators at the end of the examination compulsorily and must NOT carry it with you outside the Examination Hall.
10. You can take away question booklet and carbon copy of OMR Answer Sheet soon after the examination.
11. **Use only Blue/Black Ball point pen.**
12. **Use of any calculator or log table etc., is prohibited.**
13. **There is no negative marks for incorrect answers.**

COMPUTER SCIENCE AND APPLICATION

PAPER – III

Note : This paper contains **seventy-five (75)** objective type questions. **Each** question carries **two (2)** marks. **All** questions are **compulsory**.

1. The crystal oscillator is operating at 15 MHz, the PCLK output of 8284 is

(A) 2.5 MHz

(B) 5 MHz

(C) 7.5 MHz

(D) 10 MHz

2. What will be the contents of Register AL after the following has been executed

MOV BL, 8C

MOV AL, 7E

ADD AL, BL

(A) 0A and carry flag is set

(B) 0A and carry flag is reset

(C) 6A and carry flag is set

(D) 6A and carry flag is reset

3. Match the following :

(i) D word	(a) End of procedure
(ii) ENDP	(b) Displacement
(iii) OFF set	(c) Name of variable
(iv) ASSUME	(d) Mapping

(A) (i – d) (ii – a) (iii– b) (iv – c)

(B) (i – c) (ii – a) (iii– b) (iv – d)

(C) (i – d) (ii – b) (iii– a) (iv – c)

(D) (i – c) (ii – b) (iii– a) (iv – d)

4. The PCI bus is the important bus found in all the new pentium system because

(A) It has plug and play characteristics

(B) It has ability to function with a 64-bit data bus

(C) Any microprocessor can be interfaced to it with PCI controller or bridge

(D) All of the above

5. The following four statements are related to interrupts

(i) vector table occupies memory location 0000H – 0FFFH

(ii) Each interrupt vector has four bytes

(iii) Interrupt descriptor table contain 256 interrupt descriptors

(iv) Each address has a 32-bit offset address

(A) All above statements are true

(B) Only first three are true and last is false

(C) Last two are true and first two are false

(D) Last three are true and first one is false

6. An ER-diagram that shows the concept of specialization and Generalization are known as

(A) Extended ER-diagrams

(B) Effective ER-diagrams

(C) Expanded ER-diagrams

(D) Enhanced ER-diagrams

7. ROLLBACK, COMMIT and SAVEPOINT are

(A) TCLS

(B) DDLS

(C) DMLS

(D) VDLS

8. After normalization, the original table can be obtained by

(A) Delete operation

(B) Cascade operation

(C) Join operation

(D) Generalization operation

9. The initial state of a transaction is known as

(A) Failed state

(B) Active state

(C) Partially committed state

(D) Aborted state

10. A checkpoint where transactions are allowed to perform update even while buffer blocks are being written out is called as a

(A) Buffer

(B) Fuzzy checkpoint

(C) Shadow paging

(D) Page swap

11. Reflection of a point about x-axis followed by a counter clock wise rotation of 90° is equivalent to reflection about the line.

(A) $x = -y$

(B) $y = -x$

(C) $x = y$

(D) $x + y = 1$

12. A cube of side 1 unit is placed such that the origin coincides with one of its vertices and the three axes run along three of its edge. The vertex diagonally opposite to (0, 1, 0) is

(A) (0, 0, 0)

(B) (1, 1, 0)

(C) (0, 1, 1)

(D) (1, 0, 1)

13. Assuming that one allows 256 depth value levels to be used, how much memory would a 512 × 512 pixel display require to store the Z-buffer.

(A) 512 K

(B) 256 K

(C) 1024 K

(D) 128 K

14. In 2 – D computer animation, moving objects are often referred to as

(A) Translate

(B) Sprites

(C) Move

(D) RUN

15. The dimension of a fractal is defined in terms of two parameters, N and S, where N is the no. of pieces and S is the scaling factor. The expression for Dimension is

(A) S/N

(B) log N/Log S

(C) N/S

(D) log S/log N

16. Which is not parameter passing

(A) Call-by-value

(B) Call-by-reference

(C) Call-by-name

(D) Call-by-function

17. In the statement static refers to

Public Static int x ;

(A) scope of the variable

(B) not to the scope of the variable

(C) public

(D) protected

18. Which is perfect match

(I) Regular Language

(II) Functional Language

(III) Logical Language

(IV) Perl

(V) LISP

(VI) PROLOG

(A) (I) and (IV)

(B) (II) and (VI)

(C) (III) and (IV)

(D) (III) and (V)

19. Which is not parallel command ?

(A) Thread

(B) Fork

(C) Par do

(D) Socket

20. Which is not parallelism ?

(A) Parallel

(B) Concurrency

(C) Distributed

(D) Simultaneous

21. Consider a channel with a bandwidth of 3100 Hz. If 8 levels of signals are transmitted through the channel. Compute capacity of the channel using the Niquist formulation.

(A) 6200 bps

(B) 3100 bps

(C) 18600 bps

(D) 24800 bps

22. What shall be data rate for a voice signal through PCM ? Assume 128 quantization levels and bandwidth of 4 kHz.

(A) 56 kbps

(B) 28 kbps

(C) 512 kbps

(D) 1024 kbps

23. Which of the following operates at the presentation layer ?

(A) FTP and HTTP

(B) SMTP

(C) UDP

(D) MIDI and JPEG

24. Consider the following statements

(i) Transport layer does packet sequencing

(ii) MAC and LLC are the sublayer of Network layer

(iii) Bridges operate at Network layer

(A) All three statements are true

(B) (i) and (ii) are true and (iii) false

(C) (i) and (iii) are true and (ii) false

(D) (ii) and (iii) are true and (iii) false

25. In a(n) _____ configuration, the initializing is done manually, with migrations done automatically.

(A) manual

(B) automatic

(C) semiautomatic

(D) multipoint

26. Consider a stack, A character occurrence indicates "Push the character", and an occurrence of * indicates "pop". The string given is

E * XA ** MQ *UES * T* ION

Give the sequence of values popped by the above operations.

(A) EXAMQUESTION

(B) NOITSEUQMAXE

(C) EAXQST

(D) EAXQMSEUTNOI

27. Find the running time of the following piece of code

```
int  f(int n)
 {
    if n > 3 then
      return (f(n – 1). f(n – 3)) ;
    else
      return ;
 }
```

(A) $T(n) = T(n – 1) + T(n – 3) + 0(1)$

(B) $T(n) = T(n – 1) . T(n – 3) + 0(1)$

(C) $T(n) = 2T(n – 1) + 0(n – 3)$

(D) $T(n) = T(n – 1) + 0(n)$

28. Given two vertices s and t in a directed unweighted graph, which of the following graph search algorithm is best suited for efficiently finding the shortest path from s to t ?

(A) Depth first search

(B) Breadth first search

(C) Dijkastra's algorithm

(D) Bellman-ford algorithm

29. Which of the following sorting methods would be most suitable for sorting a list which is almost sorted ?

(A) Bubble sort

(B) Insertion sort

(C) Selection sort

(D) Quick sort

30. An undirected graph G with n vertices and e edges is represented by adjacency list. What is the time required to generate all the connected components ?

(A) O(n)

(B) O(e)

(C) $O(e^2)$

(D) O(n + e)

31. Aggregation is a special form of _____ between a whole and its ports in which the whole is composed of the ports.

(A) Generalization

(B) Specialization

(C) Association

(D) Object

32. Assume a class with obj 1, obj 2 and obj 3, for the statement obj 3 = 1 – obj 2 to work correctly, the overloaded operator must

(A) return a value

(B) create a named temporary object

(C) use the object of which is a member as an operand

(D) both (A) and (C) above

33. Garbage collector frees the programmer from worrying about

(A) memory leaks

(B) dangering references

(C) creating new objects

(D) recursion

34. Consider the condition,

(m > = 5) || (n! = m)

How you rewrite this condition if JAVA does not have | | operator ?

(A) ! ((m < 5) & & (n = = m))

(B) (m < 5) & & (n = = m)

(C) (m < 5) || (n = = m)

(D) None of these

35. Which of the following parameter passing mode is | are supported by JAVA ?

(A) Pass by value

(B) Pass by reference

(C) Pass by result value

(D) A mode that depends on the context

36. In project estimation the with used for estimation of development effort and development time are

(A) Month persons and months

(B) Person months and month persons

(C) Months and person months

(D) Person months and months

37. Decomposition of a module requires

(A) High cohesion and high coupling

(B) Low cohesion and low coupling

(C) High cohesion and low coupling

(D) Low cohesion and high coupling

38. In top-down testing strategy, the dummy procedures invoked by the module under testing are known as

(A) Drives

(B) Stubs

(C) Leads

(D) Trailers

39. The changes made in software systems during software maintenance when the customer need the product to be interfaced with new hardware and software is known as

(A) Corrective maintenance

(B) Perfective maintenance

(C) Adaptive maintenance

(D) Integrative maintenance

40. The quality assurance method consists of the following different stages

1. Inspection
2. Quality control
3. Quality assurance
4. Total quality management. The required sequence of the above stages in quality assurance process are

(A) 1, 2, 3, 4

(B) 1, 2, 4, 3

(C) 1, 3, 2, 4

(D) 1, 4, 2, 3

41. Logical memory is divided into

(A) Pages

(B) Frames

(C) Partitions

(D) Parts

42. The worst fit algorithm

(A) Is used only when nothing better is available

(B) Is to place program in largest available partition

(C) Should never be used

(D) Places a program in the smallest possible partition

43. A thread is a

(A) Task

(B) Process

(C) Program

(D) Light weight process

44. Consider a logical address space of eight pages of 1024 words each, mapped onto a physical memory of 32 frames. How many bits are there in the logical address and physical address.

(A) 12, 14

(B) 12, 16

(C) 13, 15

(D) 14, 16

45. Assume we have a demand-paged memory. The page table is held in registers. It takes 8 milliseconds to service a page fault if an empty page is available or the replaced page is not modified and 20 milliseconds if the replaced page is modified. Memory access time is 100 nanoseconds. Assume that the page to be replaced is modified 70 percent of time. What is the maximum acceptable page-fault rate for an effective access time of no more than 200 nanoseconds ?

(A) 0.000002

(B) 0.000003

(C) 0.000006

(D) 0.200000

46. Uninformed search is also called as

(A) Hill climbing

(B) Best first search

(C) Worst case search

(D) Brute force search

47. A set of possible permutation that can be examined by a search method in order to find solution is

(A) Formula

(B) Function

(C) Search space

(D) Procedure

48. What is the name computer program that simulates the thought process of human beings ?

(A) Human logic

(B) Expert system

(C) Expert reason

(D) Personal system

49. Which of following algorithm is on-line search algorithm ?

(A) Breadth-first search algorithm

(B) Depth-first search algorithm

(C) Hill-climbing search algorithm

(D) None of the above mentioned

50. PROLOG is

(A) Programing logic based on logic

(B) Describe the structure of the content of the data base

(C) Operating system

(D) None of the above mentioned

51. Context Free Grammar (CFG) is recognized by

(A) finite state automata

(B) 2-way linear bounded automata

(C) push down automata

(D) both (B) and (C) of above

52. The following Grammar

G = { N, T, P, S}

N = { S, A, B}

T = {a, b, c}

P : S $\rightarrow$ asa

S $\rightarrow$ asa

A $\rightarrow$ bB

B $\rightarrow$ bB

B $\rightarrow$ C

is Grammar of type

(A) Type 3

(B) Type 2 but not Type 3

(C) Type 1 but not Type 2

(D) Type 0 but not Type 1

53. Push down machine behaves like Turing machine when number of auxiliary memory it has

(A) 2

(B) 1

(C) 0

(D) 4

54. Which of the following regular expression identity is true ?

(A) $r(*) = r^*$

(B) $(r^* s^*)^* = (r + s)^*$

(C) $(r + s)^* = r^* + s^*$

(D) $r^* s^* = r^* + s^*$

55. Which of the following denotes Chomskian hierarchy ?

(A) REG $\subset$ CFL $\subset$ CSL $\subset$ Type 0

(B) CFL $\subset$ REG $\subset$ Type 0 $\subset$ CSL

(C) CSL $\subset$ Type 0 $\subset$ REG $\subset$ CFL

(D) CSL $\subset$ CFL $\subset$ REG $\subset$ Type 0

56. If there are only eight alphabets in a particular vocabulary system, the size of the variable length code will be

(A) 8

(B) 18

(C) 20

(D) 24

57. For the code C = { 001, 110, 101}, the error pattern of weight _____ can be detected.

(A) 0

(B) 1

(C) 2

(D) 3

58. If a function g(x) has Fourier transform G(k), the Fourier transform of the n^{th} derivative of g(x) will be

(A) $(ik)^{-n} G(k)$

(B) $(ik)^n G(k)G^*(k)$

(C) $(ik)^n G(k)$

(D) $(ik)^{-n} G^*(k)$

59. A divisor in a cyclic code is normally called the

(A) redundancy

(B) degree

(C) generator

(D) backwards

60. For a binary symmetric channel whose input source is the alphabet X = {0, 1} with probabilities {0.5, 0.5} and whose output alphabet is Y = {0, 1}, having the following channel matrix where $\in$ is the probability of transmission error.

$$\begin{pmatrix} 1-\in & \in \\ \in & 1+\in \end{pmatrix}$$

The expressions $-(1-\in)\log(1-\in)-\in \log \in$ and $1+(1-\in)\log(1-\in)+\in \log \in$ represent.

(A) Conditional entropy and mutual information respectively

B) Mutual information and conditional entropy respectively

(C) Uncertainity in conditional entropy and mutual information of channel respectively

(D) Uncertainity in conditional entropy and mutual information of channel respectively

61. The maximization and minimization of a quantity is the

(A) Goal of management science

(B) Decision for decision analysis

(C) Construct of operations research

(D) Objective of linear programming

62. To find the optimal solution to a linear programming problem using graphical method is

(A) Find the feasible point that is fartherest away from the origin

(B) Find the feasible point that is at highest location

(C) Find the feasible point closest to the origin

(D) None of the Alternative is correct

63. All linear programming problems will have following properties Except

(A) a linear objective function that is to be maximised or minimised

(B) a set of linear constraints

(C) alternative optimal solution

(D) variable restricted to non negative values

64. Total profits are maximised when the objective function (as straight line on a graph) is

(A) Nearest to origin and tangent to the 'feasible region'

(B) Fartherest from the origin and tangent to the 'feasible region'

(C) Nearest to the origin irrespective of 'feasible region'.

(D) Fartherest from origin irrespective of the 'feasible region'

65. The point (x, 3) satisfies inequality, $-5x - 2y \leq 13$ find smallest possible value of x

(A) 1.4

(B) 0

(C) 3.8

(D) 1.4

66. A 3-input neuron is trained to output a zero, when the input is 110 and above when the input 111. After generalization, the output will be zero when and when the input is

(A) 000 or 000 or 011 or 101

(B) 010 or 100 or 110 or 101

(C) 000 or 010 or 110 or 100

(D) 000 or 110 or 110 or 100

67. An autoassociative network is

(A) a neural network contains no loop

(B) a neural network contains feedback

(C) a neural network that has only one loop

(D) a neural network that has two loops

68. Which of the following is true

(i) On average, neural networks have higher computational rates than conventional computers.

(ii) Neural networks learn by example.

(iii) Neural networks mimic the way human brain works.

(A) All of (i), (ii) and (iii) are true

(B) (ii) and (iii) are true

(C) (i) is only true

(D) (iii) is only true

69. Which of the following is not true regarding the principles of fuzzy logic ?

(A) Fuzzy logic is a concept of certain degree

(B) Fuzzy logic following principles of Aristotle and Buddha

(C) Japan is currently is the most active user of fuzzy logic

(D) Boolean logic is the subset of fuzzy logic

70. Fuzzy Approximation Theorem (FAT) is

(A) A fuzzy system can model any continuous system

(B) The conversion of fuzzy logic to probability

(C) A continuous system that can model a fuzzy system

(D) Used in sorting mechanism

71. To show size of files in blocks, ls command is used with option.

(A) size

(B) s

(C) b

(D) block

72. The command copies standard input to standard output and at the same time copies it to one or more files is

(A) cp

(B) mv

(C) tee

(D) inputoutput

73. The inode in the directory links the filename directly to the physical file is known as

(A) Hard link

(B) Soft link

(C) Symbolic link

(D) Complex link

74. The unix command copies a specified number of lines from the beginning of one or more files to the standard output stream is

(A) head

(B) top

(C) begin

(D) title

75. The regular expression
– ? [0 – 9] +
matches

(A) signed number

(B) number with plus

(C) Signed number including an optional leading minus

(D) Signed number with plus

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ಚಿತ್ತು ಬರಹಕ್ಕಾಗಿ ಸ್ಥಳ
Space for Rough Work

ಚಿತ್ತು ಬರಹಕ್ಕಾಗಿ ಸ್ಥಳ
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