A

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CODE :

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प्रश्नपुस्तिका
चाळणी परीक्षा
संगणक अभियांत्रिकी

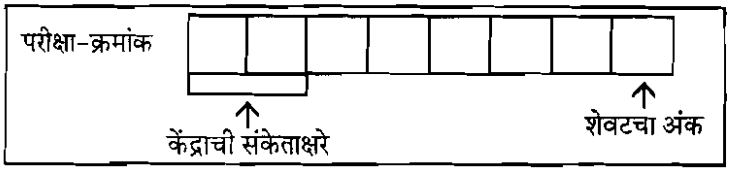
वेळ : 3 (तीन) तास

एकूण प्रश्न : 80
एकूण गुण : 200

सूचना

(1) सदर प्रश्नपुस्तिकेत 80 अनिवार्य प्रश्न आहेत. उमेदवारांनी प्रश्नांची उत्तरे लिहिण्यास सुरुवात करण्यापूर्वी या प्रश्नपुस्तिकेत सर्व प्रश्न आहेत किंवा नाहीत याची खात्री करून घ्यावी. असा तसेच अन्य काही दोष आढळल्यास ही प्रश्नपुस्तिका समवेक्षकांकडून लगेच बदलून घ्यावी.

(2) आपला परीक्षा-क्रमांक ह्या चौकोनांत **न विसरता बॉलपेनने** लिहावा.



(3) वर छापलेला प्रश्नपुस्तिका क्रमांक तुमच्या उत्तरपत्रिकेवर विशिष्ट जागी उत्तरपत्रिकेवरील सूचनेप्रमाणे **न विसरता नमूद करावा.**

(4) या प्रश्नपुस्तिकेतील प्रत्येक प्रश्नाला 4 पर्यायी उत्तरे सुचविली असून त्यांना 1, 2, 3 आणि 4 असे क्रमांक दिलेले आहेत. त्या चार उत्तरांपैकी सर्वात योग्य उत्तराचा क्रमांक उत्तरपत्रिकेवरील सूचनेप्रमाणे तुमच्या उत्तरपत्रिकेवर नमूद करावा. अशा प्रकारे उत्तरपत्रिकेवर उत्तरक्रमांक नमूद करताना तो संबंधित प्रश्नक्रमांकासमोर छायांकित करून दर्शविला जाईल याची काळजी घ्यावी. **ह्याकरिता फक्त काळ्या शाईचे बॉलपेन वापरावे, पेन्सिल वा शाईचे पेन वापरू नये.**

(5) सर्व प्रश्नांना समान गुण आहेत. यास्तव सर्व प्रश्नांची उत्तरे द्यावीत. घाईमुळे चुका होणार नाहीत याची दक्षता घेऊनच शक्य तितक्या वेगाने प्रश्न सोडवावेत. क्रमाने प्रश्न सोडविणे श्रेयस्कर आहे पण **एखादा प्रश्न कठीण वाटल्यास त्यावर वेळ न घालविता पुढील प्रश्नाकडे वळावे.** अशा प्रकारे शेवटच्या प्रश्नापर्यंत पोहोचल्यानंतर वेळ शिल्लक राहिल्यास कठीण म्हणून वगळलेल्या प्रश्नांकडे परतणे सोईस्कर ठरेल.

(6) उत्तरपत्रिकेत एकदा नमूद केलेले उत्तर खोडता येणार नाही. नमूद केलेले उत्तर खोडून नव्याने उत्तर दिल्यास ते तपासले जाणार नाही.

(7) **प्रस्तुत परीक्षेच्या उत्तरपत्रिकांचे मूल्यांकन करताना उमेदवाराच्या उत्तरपत्रिकेतील योग्य उत्तरांनाच गुण दिले जातील. तसेच ''उमेदवाराने वस्तुनिष्ठ बहुपर्यायी स्वरूपाच्या प्रश्नांची दिलेल्या चार पर्यायांपैकी सर्वात योग्य उत्तरेच उत्तरपत्रिकेत नमूद करावीत. अन्यथा त्यांच्या उत्तरपत्रिकेत सोडविलेल्या प्रत्येक चार चुकीच्या उत्तरांसाठी एका प्रश्नाचे गुण वजा करण्यात येतील''.**

ताकीद

ह्या प्रश्नपत्रिकेसाठी आयोगाने विहित केलेली वेळ संपेपर्यंत ही प्रश्नपुस्तिका आयोगाची मालमत्ता असून ती परीक्षाकक्षात उमेदवाराला परीक्षेसाठी वापरण्यास देण्यात येत आहे. ही वेळ संपेपर्यंत सदर प्रश्नपुस्तिकेची प्रत/प्रती, किंवा सदर प्रश्नपुस्तिकेतील काही आशय कोणत्याही स्वरूपात प्रत्यक्ष वा अप्रत्यक्षपणे कोणत्याही व्यक्तीस पुरविणे, तसेच प्रसिद्ध करणे हा गुन्हा असून अशी कृती करणाऱ्या व्यक्तीवर शासनाने जारी केलेल्या ''परीक्षांमध्ये होणाऱ्या गैरप्रकारांना प्रतिबंध करण्याबाबतचा अधिनियम-82'' यातील तरतुदीनुसार तसेच प्रचलित कायद्याच्या तरतुदीनुसार कारवाई करण्यात येईल व दोषी व्यक्ती कमाल एक वर्षाच्या कारावासाच्या आणि/किंवा रुपये एक हजार रकमेच्या दंडाच्या शिक्षेस पात्र होईल.

तसेच ह्या प्रश्नपत्रिकेसाठी विहित केलेली वेळ संपण्याआधी ही प्रश्नपुस्तिका अनधिकृतपणे बाळगणे हा सुद्धा गुन्हा असून तसे करणारी व्यक्ती आयोगाच्या कर्मचारीवृंदापैकी, तसेच परीक्षेच्या पर्यवेक्षकीयवृंदापैकी असली तरीही अशा व्यक्तीविरूद्ध उक्त अधिनियमानुसार कारवाई करण्यात येईल व दोषी व्यक्ती शिक्षेस पात्र होईल.

पुढील सूचना प्रश्नपुस्तिकेच्या अंतिम पृष्ठावर पहा

पर्यवेक्षकांच्या सूचनेविना हे सील उघडू नये

SEAL

कच्च्या कामासाठी जागा / SPACE FOR ROUGH WORK

1. Coupling and Cohesion can be implemented using a :

(1) cause - effect graph (2) dependence matrix

(3) structural chart (4) SRS

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2. In Entity-Relationship diagram *dotted ellipse* is used to represent :

(1) Multi-valued attribute (2) Single valued attribute

(3) Derived attribute (4) Weak attribute

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3. The probability that prime number selected at random from the number (1, 2, 3,....., 35) is :

(1) 12/35 (2) 11/35 (3) 13/35 (4) None of these

---

4. Consider the divides relation, m | n, on the set A = {2, 3, 4, 5, 6, 7, 8, 9, 10}. The cardinality of the covering relation for this partial order relation (i.e., the number of edges in the Hasse diagram) is :

(1) 4 (2) 6 (3) 5 (4) 7

---

5. A flip-flop has :

(1) one stable state (2) no stable states

(3) two stable states (4) none of the above

---

6. What does the following declaration mean ?

int (*ptr)[10];

(1) ptr is array of pointers to 10 integers

(2) ptr is a pointer to an array of 10 integers

(3) ptr is an array of 10 integers

(4) ptr is a pointer to array

---

7. Which one is the contra positive of $q \rightarrow p$?

(1) $p \rightarrow q$ (2) $\neg p \rightarrow \neg q$ (3) $\neg q \rightarrow \neg p$ (4) None of these

---

SPACE FOR ROUGH WORK

P.T.O.

8. A Euler graph is one in which :
   (1) Only two vertices are of odd degree and the rest are even
   (2) Only two vertices are of even degree and the rest are odd
   (3) All the vertices are of odd degree
   (4) All the vertices are of even degree

9. Pigeonhole principle states that, if $A \rightarrow B$ and $|A| > |B|$ then :
   (1) f is not onto (2) f is not one - one
   (3) f is neither one - one nor onto (4) f may be one - one

10. Trigger cannot be activated on :
   (1) Insertion of record
   (2) Deletion of record
   (3) Deletion of column/field from table
   (4) Updation of record

11. A complete Binary tree of level 5 has how many nodes ?
   (1) 15 (2) 25 (3) 63 (4) 30

12. The data structure required for Breadth First Traversal on a graph is :
   (1) queue (2) stack (3) array (4) tree

13. A binary tree of depth "d" is an almost complete binary tree if :
   (1) Each leaf in the tree is either at level "d" or at level "d − 1"
   (2) For any node "n" in the tree with a right descendent at level "d" all the left descendents of "n" that are leaves, are also at level "d"
   (3) Both (1) and (2)
   (4) None of the above

14. A self complemented, distributive lattice is called :
   (1) Boolean Algebra (2) Modular lattice
   (3) Complete lattice (4) Self dual lattice

SPACE FOR ROUGH WORK

15. Let P be a matrix of order $m \times n$, and Q be a matrix of order $n \times p$, $n \neq p$. If $\rho(P) = n$ and $\rho(Q) = p$ then rank $\rho(PQ)$ is :

(1) p (2) n (3) np (4) n + p

16. The next iterative value of the root of $X^2 - 4 = 0$ using the Newton - Raphson method, if the initial guess is 3, is :

(1) 1.5 (2) 2.067 (3) 2.167 (4) 3.000

17. If a square matrix A is real and symmetric, then the eigen values :

(1) are always real (2) are always real and positive

(3) are always real and negative (4) occur in complex conjugate pairs

18. Let L be a lattice. Then for every a and b in L which one of the following is correct ?

(1) $a \vee b = a \wedge b$ (2) $a \vee (b \vee c) = (a \vee b) \vee c$

(3) $a \vee (b \wedge c) = a$ (4) $a \vee (b \vee c) = b$

19. A complete graph of n vertices should have _____ edges.

(1) n − 1 (2) n (3) n(n − 1)/2 (4) n(n + 1)/2

20. The check clause in SQL is used to :

(1) Activate a trigger (2) Restrict a domain

(3) Select records from table (4) Check the result

21. Acceptance requirements that a system should meet is :

(1) Usability (2) Understandability

(3) Functionality (4) Enhancements

22. In _____ the heights of the two child subtrees of any node differ by at most one.

(1) Binary tree (2) Red Black tree (3) Splay tree (4) AVL tree

23. Consider that n elements are to be sorted. What is the worst case time complexity of Bubble sort ?

(1) O(1) (2) O(log2n) (3) O(n) (4) O(n2)

SPACE FOR ROUGH WORK

P.T.O.

24. Bitwise operators can operate upon :

(1) Double and Char (2) Double and Float

(3) Double and Integer (4) Integer and Char

---

25. A scheduler which selects processes from secondary storage device is called :

(1) Short term scheduler. (2) Long term scheduler.

(3) Medium term scheduler. (4) Process scheduler.

---

26. If normal memory access time is 100 nanoseconds and the cache search time is 20 nanoseconds and all 80% of the page table entries are found in the cache memory the paged memory access time is equal to :

(1) 100 ns (2) 120 ns (3) 140 ns (4) 200 ns

---

27. int unknown(int n) {

```
int i, j, k = 0;
for (i = n/2; i <= n; i++)
    for (j = 2; j <= n; j = j * 2)
    k = k + n/2;
return k;
}
```

What is the complexity of the above function ?

(1) $\theta(n^2)$ (2) $\theta(n^2 \log n)$ (3) $\theta(n^3)$ (4) $\theta(n^3 \log n)$

---

28. The result of evaluating the postfix expression 5, 4, 6, +, *, 4, 9, 3, /, +, * is :

(1) 600 (2) 350 (3) 650 (4) 588

SPACE FOR ROUGH WORK

29. What is the output of following code ?

```
#include <stdio.h>
void f1(int *);
int main ()
{
int i = 10;
f1(&i);
}
void f1(int *p)
{
      printf("%f\n",(++ *p));
}
```

(1) Address of i (2) 10 (3) 11 (4) None of these

---

30. The following set of equations $3x+2y+z=4$, $x-y+z=2$, $-2x+2z=5$ has :

(1) No solution (2) A unique solution

(3) Multiple solution (4) An inconsistency

---

31. An ADT is defined to be a mathematical model of a user defined type along with the collection of all _____ operations on that model.

(1) Primitive (2) Assignment

(3) Cardinality (4) Structured

---

32. The main objective of feasibility study is :

(1) to assess whether it is possible to meet the requirements specifications

(2) to assess whether it is possible to meet the requirements specified subject to constraints of budget, human resource and hardware

(3) to assist the management in implementing the desired system

(4) to remove bottle-necks in implementing desired system

---

33. In operating system, the resource management can be done via :

(1) time division multiplexing (2) space division multiplexing

(3) both (1) and (2) (4) none of the above

SPACE FOR ROUGH WORK

34. Read the following statements carefully, and choose the correct answer :

(i) For the Backtracking algorithms stack data structure is used.

(ii) For the Branch-and-bound algorithms queue data structure is used.

(1) (i) is false but (ii) is true (2) (i) and (ii) both are false

(3) (i) is true but (ii) is false (4) (i) and (ii) both are true

---

35. Bhargav throws a die 100 times. Getting an even number is considered a success. The variance of the number of successes is :

(1) 10 (2) 20 (3) 25 (4) 50

---

36. The statement $(p \wedge q) \Rightarrow p$ is a :

(1) Contingency (2) Absurdity

(3) Tautology (4) None of the above

---

37. If there are 64 segments, and the maximum segment size is 1024 words, the length of logical address is :

(1) 8 bit (2) 16 bit (3) 32 bit (4) 64 bit

---

38. The most common addressing techniques employed by a CPU is :

(1) immediate (2) direct (3) indirect (4) all of the above

---

39. What is meant by a dedicated computer ?

(1) which is used by one person only

(2) which is assigned to one and only one task

(3) which does one kind of software

(4) which is meant for application software only

---

40. The sorting technique where array to be sorted is portioned again and again in such a way that all elements less than or equal to partitioning element appear before it and those which are greater appear after it, is called :

(1) Merge sort (2) Quick sort

(3) Selection sort (4) None of these

SPACE FOR ROUGH WORK

41. To implement the durability property of transaction following technique is used :

(1) Hashing technique (2) Shadow copy technique

(3) Concurrency control scheme (4) Lock based technique

---

42. A text is made up of the characters a, b, c, d, e each occurring with the probability .12, .4, 0.15, .08 and .25 respectively. The optimal coding technique will have the average length of, (Use Huffman coding) :

(1) 2.15 (2) 3.01 (3) 2.3 (4) 1.78

---

43. Pipeline implement :

(1) fetch instruction (2) decode instruction

(3) fetch operand (4) all of the above

---

44. Deadlock is detected by using a graph called :

(1) Precedence graph (2) Database graph

(3) Wait-for graph (4) Time stamp graph

---

45. Changes made to the system to reduce the future system failure are collectively called as :

(1) Corrective Maintenance (2) Adaptive Maintenance

(3) Preventive Maintenance (4) Perfective Maintenance

---

46. In a queue, the initial values of Front Pointer and Rare Pointer should be _____ respectively.

(1) 0 and 1 (2) 0 and -1 (3) -1 and 0 (4) 1 and 0

---

47. If B is a Boolean Algebra, then which of the following is true ?

(1) B is a finite but not complemented lattice.

(2) B is a finite, complemented and distributive lattice.

(3) B is a finite, distributive but not complemented lattice.

(4) B is not distributive lattice.

SPACE FOR ROUGH WORK

48. Which of the following statements are true ?

(i) Shortest remaining time first scheduling may cause starvation

(ii) Preemptive scheduling may cause starvation

(iii) Round robin is better than FCFS in terms of response time

(1) (i) only (2) (i) and (iii) only

(3) (ii) and (iii) only (4) (i), (ii) and (iii)

---

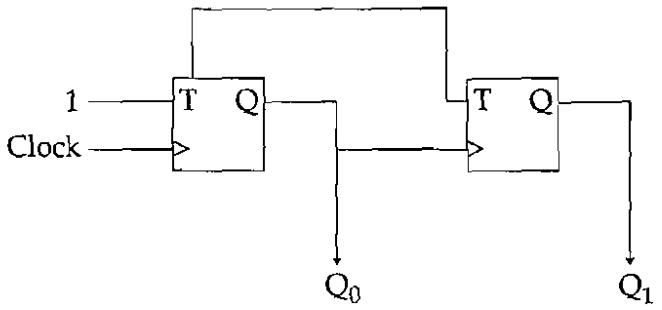
49. Memory access in RISC architecture is limited to instructions :

(1) CALL and RET (2) PUSH and POP

(3) STA and LDA (4) MOV and JMP

---

50. In the sequential circuit shown below, if the initial value of the output Q_1Q_0 is 00, what are the next four values of Q_1Q_0 ?



(1) 11,10,01,00 (2) 10,11,01,00 (3) 10,00,01,11 (4) 11,10,00,01

---

51. The highest order of polynomial integrand for which Simpson's 1/3 rule of integration is exact is :

(1) first (2) second (3) third (4) fourth

---

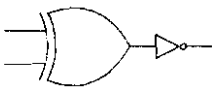
52. A parser which is a variant of top-down parsing without backtracking is :

(1) Recursive Descend (2) Operator Precedence

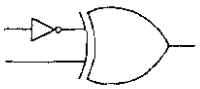
(3) LL(1) Parser (4) LALR Parser

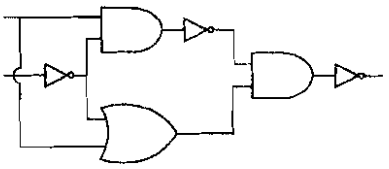
SPACE FOR ROUGH WORK

53. Which one of the following circuits is NOT equivalent to a 2 - input XNOR (exclusive NOR) gate ?

(1) 

(2) 

(3) 

(4) 

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54. Let E = {{1, 2, 3}, {2, 3}, {a, b}}, F = {{a, b}, {1, 2}} and G = {a, b, 1, 2}. Which of the following is true ?

(A) $\{a, b\} \subseteq F$ (B) $1 \in F$ (C) $\{\{1, 2, 3\}\} \subseteq E$ (D) $\{2, 3\} \in E$

(1) (A) and (C) (2) (C) and (D)

(3) (B), (C) and (D) (4) (A), (C) and (D)

---

55. Two phase locking protocol ensures :

(1) Serializability (2) Freedom from deadlock

(3) Cascadeless schedule (4) Recoverable schedule

---

56. Why would a delay gate be needed for a digital circuit ?

(1) a delay gate is never needed

(2) to provide for setup times

(3) to provide for hold times

(4) to provide for setup times and hold times

---

57. Matrix $M = \begin{bmatrix} A & B \\ C & 0 \end{bmatrix}$ is an orthogonal matrix. The value of $|B|$ is :

(1) 1/2 (2) 1 (3) 0 (4) $\frac{1}{\sqrt{2}}$

SPACE FOR ROUGH WORK

P.T.O.

58. From the following pick the one which does not belong to the same paradigm to which others belong :

(1) Minimum and maximum problem

(2) Knapsack problem

(3) Selection problem

(4) Merge sort

---

59. There are four algorithms A1, A2, A3 and A4. Solve the given problem with the order log (n), log (log(n)), nlog(n) and n/log(n) respectively. Which is the best algorithm ?

(1) A1 (2) A2 (3) A3 (4) A4

---

60. The minimum number of D flip-flops needed to design a mod - 258 counter is :

(1) 9 (2) 8 (3) 512 (4) 258

---

61. State True or False :

(i) Network is a graph that has weights or costs associated with it.

(ii) An undirected graph which contains no cycles is called a forest.

(iii) A graph is said to be complete if there is no edge between every pair of vertices.

(1) True, False, True (2) True, True, False

(3) True, True, True (4) False, True, True

---

62. If h is any hashing function and is used to hash n keys in to a table of size m, where $n <= m$, the expected number of collisions involving a particular key x is :

(1) less than 1 (2) less than n (3) less than m (4) less than n/2

---

63. In a two - pass assembler, the task of the pass II is to :

(1) separate the symbol, mnemonic opcode and operand fields.

(2) build the symbol table.

(3) construct intermediate code.

(4) synthesize the target program.

---

64. If no partial dependencies and multi-valued attributes exist in a relation, then the relation is in what normal form ?

(1) 1NF (2) 2NF (3) 4NF (4) BCNF

SPACE FOR ROUGH WORK

65. Let A = {a, b, c, d} and B = {1, 2, 3}. Determine which of the following is a func
F : A → B :

(1) F = {(a, 1), (b, 2), (c, 1), (d, 2)}

(2) F = {(a, 1), (b, 2), (a, 2), (c, 1), (d, 2)}

(3) F = {(a, 1), (b, 2), (c, 3), (d, 3), (a, 2)}

(4) F = {(a, 1), (b, 2), (c, 3)}

---

66. Which of the following algorithms solve the all-pair shortest path problem ?

(1) Dijkstra's Algo (2) Floyd's Algo

(3) Prim's Algo (4) Kruskal's Algo

---

67. A spanning tree of a graph is one that includes :

(1) All the vertices of the graph

(2) All the edges of the graph

(3) Only the vertices of odd degree

(4) Only the vertices of even degree

---

68. Binary search tree is an example of :

(1) Divide and conquer technique (2) Greedy algorithm

(3) Back tracking (4) Dynamic programming

---

69. In paging system where page size is 2048 words, and the available physical memory is equal to 2^{17} = 128 K words, the length of the physical address is equal to :

(1) 16 bit (2) 28 bit (3) 17 bit (4) 34 bit

---

70. Which of the memory allocation schemes are subject to external fragmentation ?

(1) Multiple Contiguous Fixed Partitions

(2) Multiple Contiguous Variable Partitions

(3) Paging

(4) Segmentation

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71. The strategy of making processes that are logically runnable to be temporarily suspe called :

(1) Non-preemptive scheduling (2) Preemptive scheduling

(3) Shortest job first (4) First come first serve

---

72. If the grammar conforms to a classification given in one of these lists, then it automatically conforms to all grammar classifications listed to the right of it :

(1) LL(1), LR(0), LR(1), LL(2) (2) LR(0), SLR(1), LR(4), LR(1)

(3) LR(0), SLR(1), LALR(1), LR(1) (4) LR(1), LALR(1), SLR(1), LR(0)

---

73. The minimum and maximum eigen values of the matrix $\begin{bmatrix} 1 & 1 & 3 \\ 1 & 5 & 1 \\ 3 & 1 & 1 \end{bmatrix}$ are -2 and 6 respectively.

What is the other eigen value ?

(1) 5 (2) 3 (3) 1 (4) -11

---

74. The Newton-Raphson method formula for finding the square root of a real number R from the equation $X^2 - R = 0$ is :

(1) $X_{i+1} = X_i/2$ (2) $X_{i+1} = 3X_i/2$

(3) $X_{i+1} = \frac{1}{2}(3X_i + R/X_i)$ (4) none of these

---

75. The bisection method of finding roots of non-linear equations falls under the category of a (an) _____ method.

(1) open (2) bracketing (3) random (4) graphical

---

76. The content of a 4-bit register is initially 1101. The register is shifted 2 times to the right with the serial input being 1011101.

What is the content of the register after each shift ?

(1) 1110, 0111 (2) 0001, 1000 (3) 1101, 1011 (4) 1001, 1001

---

77. What is the output of the following expression ?

```
int z, x=5, y= -10, a=4, b=2;
z=x+ +.....y *b/a;
```

(1) 5 (2) 6 (3) 10 (4) 11

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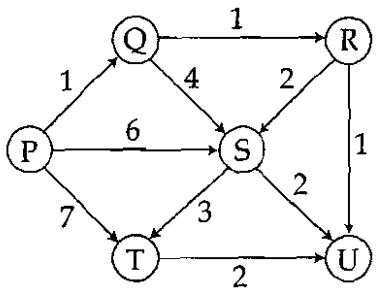
78. Let P(A) denote the power set of A. If $P(A) \subseteq B$ then :

(1) $2^{|A|} \leq |B|$ (2) $2^{|A|} \geq |B|$ (3) $2^{|A|} < |B|$ (4) $2^{|A|} \geq 2^{|B|}$

---

79. Suppose we run Dijkstra's single source shortest-path algorithm on the following edge weighted directed graph with vertex P as the source. In what order do the nodes get included into the set of vertices for which the shortest path distances are finalized ?



(1) P, Q, R, S, T, U (2) P, Q, R, U, S, T

(3) P, Q, R, U, T, S (4) P, Q, T, R, U, S

---

80. The Postfix form of the expression

(A + B)*(C*D − E)*F/G is :

(1) AB + CD*E − FG/** (2) AB + CD*E − F**G/

(3) AB + CD*E − *F*G/ (4) AB + CDE* − *F*G/

- o 0 o -

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सूचना — (पृष्ठ 1 वरून पुढे....)

(8) प्रश्नपुस्तिकेमध्ये विहित केलेल्या विशिष्ट जागीच कच्चे काम (रफ वर्क) करावे. प्रश्नपुस्तिकेव्यतिरिक्त उत्तरपत्रिकेवर वा इतर कागदावर कच्चे काम केल्यास ते कॉपी करण्याच्या उद्देशाने केले आहे, असे मानले जाईल व त्यानुसार उमेदवारावर शासनाने जारी केलेल्या "परीक्षांमध्ये होणाऱ्या गैरप्रकारांना प्रतिबंध करण्याबाबतचे अधिनियम-82" यातील तरतुदीनुसार कारवाई करण्यात येईल व दोषी व्यक्ती कमाल एक वर्षाच्या कारावासाच्या आणि/किंवा रुपये एक हजार रकमेच्या दंडाच्या शिक्षेस पात्र होईल.

(9) सदर प्रश्नपत्रिकेसाठी आयोगाने विहित केलेली वेळ संपल्यानंतर उमेदवाराला ही प्रश्नपुस्तिका स्वत:बरोबर परीक्षाकक्षाबाहेर घेऊन जाण्यास परवानगी आहे. **मात्र परीक्षा कक्षाबाहेर जाण्यापूर्वी उमेदवाराने आपल्या उत्तरपत्रिकेचा भाग-1 समवेक्षकाकडे न विसरता परत करणे आवश्यक आहे.**

नमुना प्रश्न

Pick out the correct word to fill in the blank :

Q. No. 201. I congratulate you _____ your grand success.

(1) for (2) at (3) on (4) about

ह्या प्रश्नाचे योग्य उत्तर "(3) on" असे आहे. त्यामुळे या प्रश्नाचे उत्तर "(3)" होईल. यास्तव खालीलप्रमाणे प्रश्न क्र. 201 समोरील उत्तर-क्रमांक "③" हे वर्तुळ पूर्णपणे छायांकित करून दाखविणे आवश्यक आहे.

प्र. क्र. 201. ① ② ● ④

अशा पद्धतीने प्रस्तुत प्रश्नपुस्तिकेतील प्रत्येक प्रश्नाचा तुमचा उत्तरक्रमांक हा तुम्हाला स्वतंत्ररीत्या पुरविलेल्या उत्तरपत्रिकेवरील त्या त्या प्रश्नक्रमांकासमोरील संबंधित वर्तुळ पूर्णपणे छायांकित करून दाखवावा. **ह्याकरिता फक्त काळ्या शाईचे बॉलपेन वापरावे, पेन्सिल वा शाईचे पेन वापरू नये.**

कच्च्या कामासाठी जागा /SPACE FOR ROUGH WORK

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