24.12.2020_MOCK TEST_MCQ_COMPUTER

R 2016 /CBCGS / SE / CE / Sem 3 / CSC302 / Discrete Mathematics - University of Mumbai

Please note before you attempt examination:
1. This is 80 marks (40 marks MCQs and 40 marks descriptive) examination for 2 hours duration. 40 minutes for solving MCQ questions and remaining 80 minutes for descriptive questions. The link will get automatically disabled after 2 hours.
2. After submitting MCQs within 40 minutes, you have to click on to the link given in response message to enter into descriptive question section.
3. The link of descriptive question will be enabled only after 40 minutes from start of the test. You will be getting 80 minutes to solve this section.
4. You have to fill the mandatory information first before attempting the quiz.
5. In MCQ section, the total marks are assigned is 40 for 20 MCQs which are compulsory and each question carry 2 marks (total 40 marks).
6. For descriptive question (Q.2 and Q.3), total marks assigned are 40 (20 marks each), you need to write the answers in legible handwriting on A4 paper. After completion of all the answers, you need to write the semester and subject name along with your correct seat number, duly signed by you and page number in typical format (current page number/ total pages) e.g. 1/5 or 3/7 (1 and 3 indicates current page number and 5 and 7 indicates total number of pages respectively on which answers are written) on each and every page.
7. Use scanning app to scan the question wise answers in PDF and upload the same using the specific link provided in the MS forms.
8. Use only college gst.sies.edu.in Email ID to appear for examination.
9. Keep your Hall Ticket and/or college ID with you while appearing for this examination.

Hi SHINIT, when you submit this form, the owner will be able to see your name and email address.

* Required

1. Enter your University Seat Number *

119A1076

2. Reenter Seat No *

119A1076

3. Name of the candidate as per hall ticket *

Shinit Shetty

4. Name of the examination *

CE/SEM 4/R16/SH 2020

5. Name of the subject with subject code *

Discrete Mathematics/001

6. A monoid is called a group if _____ *
(2 Points)

- (a*a)=a=(a+c)
- (a*c)=(a+c)

- (a+c)=a
- (a*c)=(c*a)=e

7. If A is any statement, then which of the following is a tautology? *
(2 Points)

- A ∧ F
- A ∨ F
- A ∨ ¬A
- A ∧ T

8. Which of the following statement is a proposition? *
(2 Points)

- Get me a glass of milkshake
- God bless you!
- What is the time now?
- The only odd prime number is 2

9. Translate ∀x∃y(x < y) in English, considering domain as a real number for both the variable. *
(2 Points)

- For all real number x there exists a real number y such that x is less than y
- For every real number y there exists a real number x such that x is less than y
- For some real number x there exists a real number y such that x is less than y
- For each and every real number x and y such that x is less than y

10. How many numbers must be selected from the set {1, 2, 3, 4} to guarantee that at least one pair of these numbers add up to 7? *
(2 Points)

- [x] r(R) = R
- [ ] s(R) = R
- [ ] t(R) = R
- [ ] f(R) = R

11. Which of the following option is true? *
(2 Points)

- [x] If the Sun is a planet, elephants will fly
- [ ] 3 +2 = 8 if 5-2 = 7
- [ ] 1 > 3 and 3 is a positive integer
- [ ] -2 > 3 or 3 is a negative integer

12. If G is the forest with 54 vertices and 17 connected components, G has _____ total number of edges. *
(2 Points)

- [ ] 38
- [x] 37
- [ ] 17/54
- [ ] 17/53

13. {1, i, -i, -1} is _____ _____ *
(2 Points)

- semigroup
- subgroup
- cyclic group
- abelian group

14. A compound proposition that is neither a tautology nor a contradiction is called a _____ *
(2 Points)

- Contingency
- Equivalence
- Condition
- Inference

15. Matrix multiplication is a/an _____ property. *
(2 Points)

- Commutative
- Associative
- Additive
- Disjunctive

16. Let A be a subset of the Universal set U. The set of all elements of U which do not belong to A is called the _____ of the given set. *

do not belong to A is called the _____of the given set.
(2 Points)

- [x] Complement of A
- [ ] Integration of set A
- [ ] Join of A
- [ ] Difference of A

17. The _____of Two sets A and B is defined as the set of all elements which are either in A and B. It is denoted by AUB and read as A union B *
(2 Points)

- [x] Union
- [ ] Intersection
- [ ] Cartesian
- [ ] Power

18. A non empty set A is termed as an algebraic structure _____ *
(2 Points)

- [x] with respect to binary operation *
- [ ] with respect to ternary operation ?
- [ ] with respect to binary operation +
- [ ] with respect to unary operation –

19. An algebraic structure _____ is called a semigroup *
(2 Points)

- [x] (R, *)

(R, *)

(Q, +, *)

(P, +)

(+, *)

20. _____ number of reflexive closure exists in a relation R = {(0,1), (1,1), (1,3), (2,1), (2,2), (3,0)} where {0, 1, 2, 3} ∈ A. *
(2 Points)

2^6

6

8

36

21. The time complexity to find a Eulerian path in a graph of vertex V and edge E is _____ *
(2 Points)

O(V^2)

O(V+E-1)

O(V+E)

O(E+1)

22. A function is said to be _____ if and only if f(a) = f(b) implies that a = b for all a and b in the domain of f. *
(2 Points)

One-to-many

- (●) One-to-one
- ( ) Many-to-many
- ( ) Many-to-one

23. If G is the forest with 54 vertices and 17 connected components, G has _____ total number of edges. *
(2 Points)

- ( ) 38
- (●) 37
- ( ) 17/54
- ( ) 4

24. How many words with seven letters are there that start with a vowel and end with an A? Note that they don't have to be real words and letters can be repeated. *
(2 Points)

- ( ) 45087902
- ( ) 64387659
- ( ) 12765800
- (●) 59406880

25. R is a binary relation on a set S and R is reflexive if and only if _____ *
(2 Points)

- ( ) X0

- ○ X1
- ◉ X2
- ○ X3

Submit