

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)
III B.Tech– II Sem (MR 17)
I Mid Examination Subjective Question Bank

Subject: Cryptography & Network Security
Name of the faculty: P.Swapna

Branch: IT

Instructions:

- 1. All the questions carry equal marks**
- 2. Solve all the questions**

Q.No.	Question	Bloom's Taxonomy Level	CO
<u>Module I</u>			
1.	List and Explain various security Mechanisms defined in X.800.	Understanding	1
OR			
2.	Explain various Security Goals.	Understanding	1
OR			
3.	Illustrate the types of Security attacks.	Understanding	1
OR			
4.	Summarize various Security Services defined in X.800.	Understanding	1
OR			
5.	Differences between passive attacks and active attacks.	Understanding	1
OR			
6.	Write a note on i. Cryptography ii. Steganography	Understanding	1
OR			
7.	Write a brief note on Encryption Techniques.	Understanding	1
OR			
8.	Explain basic terms in Cryptography with an example.	Understanding	1

<u>Module II</u>			
1.	Demonstrate how DES algorithm uses feistel cipher structure.	Applying	2
OR			
2.	Demonstrate AES Algorithm.	Applying	2
3.	Explain any two Substitution techniques.	Understanding	2
OR			
4.	Explain any two Transposition Techniques.	Understanding	2
5.	Demonstrate Hill cipher encryption with an example	Applying	2
OR			
6.	Demonstrate Multiplicative cipher with example	Applying	2
7.	Apply keyed transposition cipher, calculate encryption and decryption for Plain Text : INFORMATION TECHNOLOGY Key Size : 4	Applying	2
OR			
8.	Make use of rail fence cipher and row transposition cipher, calculate encryption and decryption for Plain Text : MEET ME AT THE OFFICE	Applying	2

Module III			
1.	Demonstrate the Chinese Remainder Theorem.	Applying	3
OR			
2.	Demonstrate the Primality Test and Factorization Theorems	Applying	3
OR			
3.	Write about Quadratic Congruence.	Understanding	3
OR			
4.	Write short notes on Exponentiation and Logarithm.	Understanding	3

Signature of the Faculty

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MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)
Maisammaguda, Dhulapally (Post via Kompally), Secunderabad – 500 100.

III B.TECH - II Semester (MR17) I MID EXAMNATIONS

Subject: Cryptography and Network Security

Branch: IT

Name of the Faculty: P.SWAPNA

1. _____ is the science and art of transforming messages to make them secure and immune to attacks. []
a. cryptography b. cryptoanalysis c. either (a) or (b) d. neither (a) nor (b)
2. The _____ is the original message before transformation []
a. ciphertext b. plaintext c. secret-text d. none of the above
3. The _____ is the message after transformation []
a. ciphertext b. plaintext c. secret-text d. none of the above
4. A(n) _____ algorithm transforms plaintext to ciphertext []
a. encryption b. decryption c. either (a) or (b) d. neither (a) nor (b)
5. A(n) _____ algorithm transforms ciphertext to plaintext []
a. encryption b. decryption c. either (a) or (b) d. neither (a) nor (b)
6. This is the model designed for guiding the policies of Information security within a company, firm or organization. What is “this” referred to here? []
a) Confidentiality b) Non-repudiation c) CIA Triad d) Authenticity
7. When you use the word _____ it means you are protecting your data from getting disclosed. []
a) Confidentiality b) Integrity c) Authentication d) Availability
8. _____ means the protection of data from modification by unknown users. []
a) Confidentiality b) Integrity c) Authentication d) Non-repudiation
9. _____ of information means, only authorised users are capable of accessing the information. []
a) Confidentiality b) Integrity c) Non-repudiation d) Availability
10. Data _____ is used to ensure confidentiality. []
a) Encryption b) Locking c) Deleting d) Backup
11. Data integrity gets compromised when _____ and _____ are taken control off. []
a) Access control, file deletion b) Network, file permission
c) Access control, file permission d) Network, system
12. _____ is the latest technology that faces an extra challenge because of CIA paradigm. []
a) Big data b) Database systems c) Cloud storages d) Smart dust
13. One common way to maintain data availability is _____ []
a) Data clustering b) Data backup c) Data recovery d) Data Altering
14. If $f(x)=x^3+x^2+2$ and $g(x)=x^2-x+1$, find: $f(x) + g(x)$ []
a) x^3+2x^2-x+3 b) x^3+x^2+3 c) x^3+x+1 d) x^2+2x+4
15. If $f(x)=x^3+x^2+2$ and $g(x)=x^2-x+1$, find: $f(x) - g(x)$ []
a) x^3+x+4 b) x^3+x+1 c) x^3+x^2+3 d) x^3+3x+2
16. Find the 8-bit word related to the polynomial $x^5 + x^2 + x$ []
a) 00010011 b) 01000110 c) 00100110 d) 11001010
17. Find the 8-bit word related to the polynomial $x^6 + x^5 + x^2 + x + 1$ []
a) 00010011 b) 11000110 c) 00100110 d) 01100111
18. Calculate $(6 + 5) \pmod{6}$ []
a) 5 b) 6 c) 11 d) 4
19. Calculate $(48 + 48) \pmod{50}$ []
a) 4 b) 46 c) 50 d) 96
20. Calculate $(6*2+24)\pmod{20}$ []
a) 0 b) 15 c) 9 d) 16

21. What is the inverse of 3 in Z_{26}
- a) 9 b)15 c)10 d) inverse doesnot exists
22. Find 7^{-1} in Z_{26}
- a) 7 b)0 c)15 d)inverse doesnot exists
- 23.If the multiplicative inverse of “53 modulo 21” exists, then which of the following is true?[]
- a) $GCD(53,21) = 1$ b) $GCD(53,21)=29$
c) $GCD(53,21) = 53$ d) $GCD(53,21) = 12$
24. In encryption:
- a) Public key is used b) private key is used c) both keys are used d)none of the above
25. _____ is a means of storing & transmitting information in a specific format so that only those for whom it is planned can understand or process it.
- a) Malware Analysis b) Cryptography c) Reverse engineering d) Exploit writing
26. Cryptographic algorithms are based on mathematical algorithms where these algorithms use _____ for a secure transformation of data.
- a) secret key b) external programs c) add-ons d) secondary key
27. Plain text are also called _____
- a) cipher-text b) raw text c) clear-text d) encrypted text
28. There are _____ types of cryptographic techniques used in general.
- a) 2 b) 3 c) 4 d) 5
29. Conventional cryptography is also known as _____ or symmetric-key encryption. []
- a) secret-key b) public key c) protected key d) primary key
30. _____ is the art & science of cracking the cipher-text without knowing the key. []
- a) Cracking b) Cryptanalysis c) Cryptography d) Crypto-hacking
31. Which of the following is not the primary objective of cryptography?
- a) Confidentiality b) Data Integrity c) Data Redundancy d) Authentication
32. Cryptography offers a set of required security services. Which of the following is not among that 4 required security services?
- a) Encryption b) Message Authentication codes
c) Hash functions d) Steganography
33. A cryptosystem is also termed as _____
- a) secure system b) cipher system c) cipher-text d) secure algorithm
34. _____ is another data hiding technique which can be used in conjunction with cryptography for the extra-secure method of protecting data.
- a) Cryptography b) Steganography c) Tomography d) Chorography
35. _____ is hiding of data within data, where we can hide images, text, and other messages within images, videos, music or recording files.
- a) Cryptography b) Tomography c) Steganography d) Chorography
36. The main motive for using steganography is that hackers or other users can hide a secret message behind a _____
- a) special file b) ordinary file c) program file d) encrypted file
37. People will normally think it as a normal/regular file and your secret message will pass on without any _____
- a) suspicion b) decryption c) encryption d) cracking
38. A combination of an encryption algorithm and a decryption algorithm is called a _____.
- a. cipher b. secret c. key d. none of the above
39. In a(n) _____ cipher, the same key is used by both the sender and receiver.
- a. symmetric-key b. asymmetric-key c. either (a) or (b) d. neither (a) nor (b)
40. In a(n) _____ cipher, a pair of keys is used.
- a. symmetric-key b. asymmetric-key c. either (a) or (b) d. neither (a) nor (b)

41. A _____ cipher replaces one character with another character. []
 a. substitution b. transposition c. either (a) or (b) d. neither (a) nor (b)
42. _____ cryptography operates on binary-bit series and strings. []
 a) Traditional b) Classic c) Modern d) Primitive
43. _____ cryptography has always been focussing on the concept of ‘security through obscurity’ []
 a) Modern b) Asymmetric c) Classic d) Latest
44. _____ cryptography is based on publicly known mathematically designed algorithms to encrypt the information. []
 a) Modern b) Classic c) Traditional d) Primitive
45. Caesar Cipher is an example of []
 a) Poly-alphabetic Cipher b) Mono-alphabetic Cipher
 c) Multi-alphabetic Cipher d) Bi-alphabetic Cipher
46. A(n) _____ is a keyless substitution cipher with N inputs and M outputs that uses a formula to define the relationship between the input stream and the output stream. []
 a. s-box b. p-box c. t-box d. none of the above
47. A(n) _____ is a keyless transposition cipher with N inputs and M outputs that uses a table to define the relationship between input stream and the output stream []
 a. s-box b. p-box c. t-box d. none of the above
48. _____ is a mono-alphabetic encryption code wherein each & every letter of plain-text is replaced by another letter in creating the cipher-text. []
 a) Polyalphabetic Cipher b) Caesar Cipher c) Playfair Cipher d) Monoalphabetic Cipher
49. _____ is the concept that tells us about the replacement of every alphabet by another alphabet and the entire series gets ‘shifted’ by some fixed quantity. []
 a) Rolling Cipher b) Playfair Cipher c) Shift Cipher d) Block Cipher
50. _____ is a cipher formed out of substitution where for a given key-value the cipher alphabet for every plain text remains fixed all through the encryption procedure. []
 a) Polyalphabetic Cipher b) Caesar Cipher c) Playfair Cipher d) Monoalphabetic Cipher
51. In _____ cipher, at first, a key table is produced. That key table is a 5 by 5 grid of alphabets which operates as the key to encrypt the plaintext. []
 a) Rolling Cipher b) Shift Cipher c) Playfair Cipher d) Block Cipher
52. _____ employs a text string as a key that is implemented to do a series of shifts on the plain-text. []
 a) Vigenere Cipher b) Shift Cipher c) Playfair Cipher d) Block Cipher
53. The procedure to add bits to the last block is termed as _____ []
 a) decryption b) hashing c) tuning d) padding
54. Data Encryption Standard is an example of a _____ cryptosystem. []
 a) conventional b) public key c) hash key d) asymmetric-key
55. DES stands for []
 a) data encryption standard b) data encryption system
 c) data encryption suggestion c) None
56. DES uses a key generator
 A. 32-bit B. 48-bit C. 54-bit D. 42-bit
57. On Encrypting “cryptography” using Vignere Cipher System using the keyword “LUCKY” we get cipher text []
 a) nlazeiibljji b) nlazeiibljji c) olaaeiibljki d) mlaaeiibljki
58. DES follows []
 a) Hash Algorithm b) Caesars Cipher c) Feistel Cipher Structure d) SP Networks
59. The DES Algorithm Cipher System consists of _____ rounds (iterations) each with a round key []

- a) 12 b) 18 c) 9 d) 16
60. The DES algorithm has a key length of []
a) 128 Bits b) 32 Bits c) 64 Bits d) 16 Bits
61. In the DES algorithm the round key is _____bit and the Round Input is _____bits. []
a) 48, 32 b) 64,32 c) 56, 24 d) 32, 32
62. In the DES algorithm the Round Input is 32 bits, which is expanded to 48 bits via []
a) Scaling of the existing bits b) Duplication of the existing bits
c) Addition of zeros d) Addition of ones
63. The number of unique substitution boxes in DES after the 48 bit XOR operation are []
a) 8 b) 4 c) 6 d) 12
64. The Initial Permutation table/matrix is of size []
a) 16×8 b) 12×8 c) 8×8 d) 4×8
65. The number of tests required to break the Double DES algorithm are []
a) 2112 b) 2111 c) 2128 d) 2119
66. How many keys does the Triple DES algorithm use? []
a) 2 b) 3 c) 2 or 3 d) 3 or 4
67. In triple DES, the key size is ____ and meet in the middle attack takes ____ tests to break the key. []
a) 2192 ,2112 b) 2184,2111 c) 2168,2111 d) 2168,2112
68. Using Linear Crypt-analysis, the minimum computations required to decipher the DES algorithm is []
a) 2^{48} b) 2^{43} c) 2^{56} d) 2^{64}
69. Using Differential Crypt-analysis, the minimum computations required to decipher the DES algorithm is []
a) 2^{56} b) 2^{43} c) 2^{55} d) 2^{47}
70. _____ carries out all its calculations on bytes rather than using bits and is at least 6-times faster than 3-DES. []
a) AES b) DES c) IDEA d)Twofish
71. AES uses a _____ bit block size and a key size of _____ bits. []
a) 128; 128 or 256 b) 64; 128 or 192 c) 256; 128, 192, or 256 d) 128; 128, 192, or 256
72. Which algorithm among- MARS, Blowfish, RC6, Rijndael and Serpent -was chosen as the AES algorithm? []
a) MARS b) Blowfish c) RC6 d) Rijndael
73. How many rounds does the AES-192 perform? []
a) 10 b) 12 c) 14 d) 16
74. How many rounds does the AES-256 perform? []
a) 10 b) 12 c) 14 d) 16
75. What is the expanded key size of AES-192? []
a) 44 words b) 60 words c) 52 words d) 36 words
76. The 4×4 byte matrices in the AES algorithm are called []
a) States b) Words c) Transitions d) Permutations
77. In AES the 4×4 bytes matrix key is transformed into a keys of size _____ []
a) 32 words b) 64 words c) 54 words d) 44 words
78. For the AES-128 algorithm there are _____ similar rounds and _____ round is different. []
a) 2 pair of 5 similar rounds ; every alternate b) 9 ; the last
c) 8 ; the first and last d) 10 ; no
79. Which of the 4 operations are false for each round in the AES algorithm []
i) Substitute Bytes
ii) Shift Columns
iii) Mix Rows
iv) XOR Round Key

- a) i) only b) ii) iii) and iv) c) ii) and iii) d) only iv)
80. How many computation rounds does the simplified AES consists of? []
a) 5 b) 2 c) 8 d) 10
81. On comparing AES with DES, which of the following functions from DES does not have an equivalent AES function? []
a) f function b) permutation p c) swapping of halves d) xor of subkey with function f
82. What is the block size in the Simplified AES algorithm? []
a) 8 bits b) 40 bits c) 16 bits d) 36 bits
83. What is the key size in the S-AES algorithm? []
a) 16 bits b) 32 bits c) 24 bits d) None of the mentioned
84. How many round keys are generated in the AES algorithm? []
a) 11 b) 10 c) 8 d) 12
85. In cryptography, what is cipher? []
a) algorithm for performing encryption and decryption
b) encrypted message
c) both algorithm for performing encryption and decryption and encrypted message
d) decrypted message
86. In asymmetric key cryptography, the private key is kept by _____ []
a) sender b) receiver c) sender and receiver d) all the connected devices to the network
87. Which one of the following algorithm is not used in asymmetric-key cryptography? []
a) rsa algorithm b) diffie-hellman algorithm
c) electronic code book algorithm d) dsa algorithm
88. In cryptography, the order of the letters in a message is rearranged by _____ []
a) transpositional ciphers b) substitution ciphers
c) both transpositional ciphers and substitution ciphers d) quadratic ciphers
89. What is data encryption standard (DES)? []
a) block cipher b) stream cipher c) bit cipher d) byte cipher
90. Cryptanalysis is used _____ []
a) to find some insecurity in a cryptographic scheme b) to increase the speed
c) to encrypt the data d) to make new ciphers
91. AES has _____ different configurations []
a) 2 b)3 c)4 d)5
92. Hill cipher requires prerequisite knowledge of? []
a) integration b) differentiation c) matrix algebra d) differential equation
93. Hill cipher is an example of _____ []
a) mono-alphabetic cipher b) substitution cipher c) transposition cipher d) additive cipher
94. Encryption in hill cipher is done using _____ []
a) matrix multiplication b) a 5×5 table c) vigenere table d) matrix inversion
95. What is poly graphic substitution cipher? []
a) a substitution based cipher which uses multiple substitutions at different positions
b) a substitution based cipher which uses fixed substitution over entire plain text
c) a substitution based cipher in which substitution is performed over a block of letters
d) a transposition based cipher which uses fixed substitution over entire plain text
96. Which of the following was the first poly graphic cipher to be able to operate on more than 3 letters at once? []
a) autokey cipher b) hill cipher c) one time pad cipher d) playfair cipher
97. Which of the following is hardest to break using frequency analysis? []
a) Vigenere cipher b) Hill cipher c) Caesar cipher d) Affine cipher
98. What will be the size of a key matrix if the plain text is “SECRET”? []

- a) 1×6 b) 5×1 c) 6×1 d) 6×6
99. Hill cipher requires prerequisite knowledge of? []
 a) integration b) differentiation c) matrix algebra d) differential equation
100. A key matrix used for encryption in hill cipher must be? []
 a) invertible matrix b) non invertible matrix c) square matrix d) rectangular matrix
101. ECB and CBC are _____ ciphers []
 a) block b) stream c) field d) None
102. What is the alternative name given to Rail fence cipher? []
 a) random cipher b) matrix cipher c) zig zag cipher d) columnar cipher
103. Which of the following ciphers are created by shuffling the letters of a word? []
 a) substitution cipher b) transposition cipher c) vigenere cipher d) hill cipher
104. What will be the plain text corresponding to cipher text "SCSEMG" if rail fence cipher is used with key value 2? []
 a) MSGSEC b) SECMSG c) GSMSEC d) SECGSM
105. The inverse of $49 \pmod{37}$ is – []
 a) 31 b) 23 c) 22 d) 34
106. How many primitive roots are there for 25? []
 a) 4 b) 5 c) 7 d) 8
107. How many primitive roots are there for 19? []
 a) 4 b) 5 c) 3 d) 6
108. The solution of the linear congruence $4x = 5 \pmod{9}$ is []
 a) $6 \pmod{9}$ b) $8 \pmod{9}$ c) $9 \pmod{9}$ d) $10 \pmod{9}$
109. Out of following which one is Mersenne Primes? []
 a) 3 b) 7 c) 2047 d) 31
110. Which positive integer less than 21 are relatively prime to 21? []
 a) 18 b) 19 c) 21 d) 24
111. A multiplicative monoid defines the property of exponentiation with _____ []
 a) integer exponents b) fractional exponents
 c) rational exponents d) negative integer exponents
112. Computation of the discrete logarithm is the basis of the cryptographic system _____ []
 a) Symmetric cryptography b) Asymmetric cryptography
 c) Diffie-Hellman key exchange d) Secret key cryptography
113. In Asymmetric-Key Cryptography, although RSA can be used to encrypt and decrypt actual messages, it is very slow if the message is []
 a. Short b. Long c. Flat d. Thin
114. Private key algorithm is used for _____ encryption and public key algorithm is used for _____ encryption. []
 a) Messages, session key b) Session key, messages
 c) Can be used for both d) None of the mentioned
115. Which algorithm can be used to sign a message? []
 a) Public key algorithm b) Private key algorithm
 c) Public & Private key algorithm d) None of the mentioned
116. Cipher system can be solved effectively by statistically using []
 a) Time of occurrence b) Frequency of occurrence
 c) Length of the message d) None of the mentioned
117. Public key cryptosystem is also known as []
 a) One way function b) Two way function
 c) Feedback function d) None of the mentioned

118. Asymmetric Encryption: Why can a message encrypted with the Public Key only be decrypted with the receiver's appropriate Private Key? []
- Not true, the message can also be decrypted with the Public Key.
 - A so called "one way function with back door" is applied for the encryption.
 - The Public Key contains a special function which is used to encrypt the message and which can only be reversed by the appropriate Private Key.
 - The encrypted message contains the function for decryption which identifies the Private Key.
119. Which is the principle of the encryption using a key? []
- The key indicates which function is used for encryption. Thereby it is more difficult to decrypt a intercepted message as the function is unknown.
 - The key contains the secret function for encryption including parameters. Only a password can activate the key.
 - All functions are public, only the key is secret. It contains the parameters used for the encryption resp. decryption.
 - The key prevents the user of having to reinstall the software at each change in technology or in the functions for encryption.
120. Which one of the following algorithm is not used in asymmetric-key cryptography? []
- rsa algorithm
 - diffie-hellman algorithm
 - electronic code book algorithm
 - dsa algorithm
121. Which of these is not a characteristic of block ciphers? []
- Variable key length / block size / number of rounds
 - Mixed operators, data/key dependent rotation
 - Key independent S-boxes
 - More complex key scheduling
122. Find the solution of $x^2 \equiv 7 \pmod{19}$ []
- $x \equiv \pm 16 \pmod{23}$
 - $x \equiv \pm 11 \pmod{23}$
 - $x \equiv \pm 14 \pmod{23}$
 - $x \equiv \pm 7 \pmod{23}$
123. Find the order of the group $G = \langle \mathbb{Z}_{21}^*, \times \rangle$? []
- 12
 - 8
 - 13
 - 11
124. Find the order of group $G = \langle \mathbb{Z}_{20}^*, \times \rangle$ []
- 6
 - 9
 - 10
 - 8
125. What is the Discrete logarithm to the base 10 (mod 19) for $a = 7$? []
- 12
 - 14
 - 8
 - 11

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MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

III B.Tech– II Sem (MR 17-2017-18 Admitted Students)

I Mid Examination Subjective Question Bank

Subject: Principles of Distributed Database Systems

Branch /Specialization: IT

Name of the faculty: A Venkatrami Reddy

Instructions:

1. All the questions carry equal marks

2. Solve all the questions

Q.No.	Question	Bloom's Taxonomy Level	CO
<u>Module I</u>			
1.	Explain about Distributed Data Processing system.	Understanding	1
OR			
2.	Explain Distributed Database System and Types of DDBS.	Understanding	1
OR			
3.	Illustrate the Promises of Distributed Database Systems	Understanding	1
OR			
4.	Explain the various problem areas in DDBS with Relationship Diagram?	Understanding	1
OR			
5.	Explain Briefly about DDBMS Architecture.	Understanding	1
OR			
6.	Explain about various Design Strategies with neat sketch.	Understanding	1
OR			
7.	Explain about Fragmentation with suitable examples	Understanding	1
OR			
8.	Explain about Replication and Allocation with suitable examples.	Understanding	1
<u>Module II</u>			
1.	Explain query processing with examples.	Understanding	2
OR			

2.	Discuss the Phases of Query Processing in distributed database.	Creating	2
OR			
3.	Outline the Characterization of query processors.	Understanding	2
OR			
4.	Explain about query decomposition with example.	Understanding	2
OR			
5.	Explain the various query processing problems.	Understanding	2
OR			
6.	Explain about Distributed query Optimization.	Understanding	2
OR			
7.	Explain about Centralized query optimization.	Understanding	2
OR			
8.	Model distributed query optimization algorithms.	Applying	2
<u>Module III</u>			
1.	Explain about transaction management.	Understanding	3
OR			
2.	Identify the properties of transactions.	Applying	3
OR			
3.	Classify different types of transactions and explain in detail.	Understanding	3
OR			
4.	Demonstrate about Distributed Concurrency Control.	Understanding	3

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MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

III B.Tech– II Sem (MR 17-2017-18 Admitted Students) I Mid Examination Subjective Question Bank

Subject: Python Programming
Name of the faculty: K Saidi Reddy

Branch /Specialization: IT

Instructions:

1. All the questions carry equal marks
2. Solve all the questions

Q.No.	Question	Bloom's Taxonomy Level	CO
<u>Module I</u>			
1.	Identify various types of python futures	Applying	1
OR			
2.	Explain about python history and versions of python	Understanding	1
OR			
3.	Illustrate python application and limitations of python application	Understanding	1
OR			
4.	Explain python identifiers and roles	Understanding	1
OR			
5.	Identify python keywords	Applying	1
OR			
6.	Illustrate flowing data types in python A)complex B)Boolean	Understanding	1
OR			
7.	Illustrate flowing data types in python A)integer B)float	Understanding	1
OR			
8.	Demonstrate about String data type in python	Understanding	1
<u>Module II</u>			
1.	Develop a python program demonstrate all the uses of Arithmetic Operators	Applying	2
OR			

2.	Explain about Comparison (Relational) Operators with example	Understanding	2
OR			
3.	Illustrate Identity Operators With example	Understanding	2
OR			
4.	Develop a python program demonstrate all the uses of Membership Operators	Applying	2
OR			
5.	Demonstrate about Logical Operators with example	Understanding	2
OR			
6.	Demonstrate about if-elif-else with example	Understanding	2
OR			
7.	Illustrate for loop statement with example in python	Understanding	2
OR			
8.	Develop a python program demonstrate all the uses of bitwise Operators	Applying	2
<u>Module III</u>			
1.	Classify list Operations	Analyzing	3
OR			
2.	Demonstrate about Custom slicing in List	Understanding	3
OR			
3.	Explain about Python Tuples with example	Understanding	3
OR			
4.	Demonstrate about Python Dictionaries and Sequence .	Understanding	3

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MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

III B.TECH II SEM (MR17) MID-I EXAMINATION QUESTION BANK

Subject Name: Python Programming

Branch: IT

Name of the Faculty: K. Saidi Reddy

Objective Questions

1. Is Python case sensitive when dealing with identifiers?
a) yes b) no c) machine dependent d) none of the mentioned
2. What is the maximum possible length of an identifier?
a) 31 characters b) 63 characters c) 79 characters d) none of the mentioned
3. Which of the following is invalid?
a) `_a = 1` b) `__a = 1` c) `__str__ = 1` d) none of the mentioned
4. Which of the following is an invalid variable?
a) `my_string_1` b) `1st_string` c) `foo` d) `_`
5. Why are local variable names beginning with an underscore discouraged?
a) they are used to indicate a private variables of a class b) they confuse the interpreter
c) they are used to indicate global variables d) they slow down execution
6. Which of the following is not a keyword?
a) `eval` b) `assert` c) `nonlocal` d) `pass`
7. All keywords in Python are in _____
a) lower case b) UPPER CASE c) Capitalized d) None of the mentioned
8. Which of the following is true for variable names in Python?
a) unlimited length
b) all private members must have leading and trailing underscores
c) underscore and ampersand are the only two special characters allowed
d) none of the mentioned
9. Which of the following is an invalid statement?
a) `abc = 1,000,000` b) `a b c = 1000 2000 3000`
c) `a,b,c = 1000, 2000, 3000` d) `a_b_c = 1,000,000`
10. Which of the following cannot be a variable?
a) `__init__` b) `in` c) `it` d) `on`
11. Which of these in not a core data type?
a) Lists b) Dictionary c) Tuples d) Class
12. Given a function that does not return any value, What value is thrown by default when executed in shell.
a) `int` b) `bool` c) `void` d) `None`
13. What will be the output of the following Python code?

```
>>>str="hello"
```

```
>>>str[:2]
```

```
>>>
```

a) he b) lo c) olleh d) hello

14. Which of the following will run without errors?

a) round(45.8) b) round(6352.898,2,5) c) round() d) round(7463.123,2,1)

15. What is the return type of function id?

a) int b) float c) bool d) dict

16. In python we do not specify types, it is directly interpreted by the compiler, so consider the following operation to be performed.

```
>>>x = 13 ? 2
```

objective is to make sure x has a integer value, select all that apply (python 3.xx)

a) x = 13 // 2 b) x = int(13 / 2) c) x = 13 % 2 d) All of the mentioned

17. What error occurs when you execute the following Python code snippet?

```
apple = mango
```

a) SyntaxError b) NameError c) ValueError d) TypeError

View Answer

18. What will be the output of the following Python code snippet?

```
def example(a):
```

```
    a = a + '2'
```

```
    a = a*2
```

```
    return a
```

```
>>>example("hello")
```

a) indentation Error b) cannot perform mathematical operation on strings

c) hello2 d) hello2hello2

19. What data type is the object below?

```
L = [1, 23, 'hello', 1]
```

a) list b) dictionary c) array d) tuple

20. What is the output of print 0.1 + 0.2 == 0.3?

a) True b) False c) Machine dependent d) Error

21. Which of the following is not a complex number?

a) k = 2 + 3j b) k = complex(2, 3) c) k = 2 + 3l d) k = 2 + 3J

22. What is the type of inf?

a) Boolean b) Integer c) Float d) Complex

23. What does ~4 evaluate to?

a) -5 b) -4 c) -3 d) +3

24. What does ~~~~~5 evaluate to?

a) +5 b) -11 c) +11 d) -5

25. Which of the following is incorrect?

a) x = 0b101 b) x = 0x4f5 c) x = 19023 d) x = 03964

26. What is the result of cmp(3, 1)?

a) 1 b) 0 c) True d) False

27. Which of the following is incorrect?

a) float('inf') b) float('nan') c) float('56'+ '78') d) float('12+34')

28. What is the result of round(0.5) – round(-0.5)?

a) 1.0 b) 2.0 c) 0.0 d) None of the mentioned

29. What does 3 ^ 4 evaluate to?

a) 81 b) 12 c) 0.75 d) 7

30. Which is the correct operator for power(xy)?

a) X^y b) X**y c) X^^y d) None of the mentioned

31. Which one of these is floor division?

a) / b) // c) % d) None of the mentioned

32. What is the order of precedence in python?

i) Parentheses

ii) Exponential

iii) Multiplication

iv) Division

v) Addition

vi) Subtraction

a) i,ii,iii,iv,v,vi b) ii,i,iii,iv,v,vi c) ii,i,iv,iii,v,vi d) i,ii,iii,iv,vi,v

33. What is the answer to this expression, 22 % 3 is?

a) 7 b) 1 c) 0 d) 5

34. Operators with the same precedence are evaluated in which manner?

a) Left to Right b) Right to Left c) Can't determined d) None of the mentioned

35. What is the output of this expression, 3*1**3?

a) 27 b) 9 c) 3 d) 1

36. Which one of the following has the same precedence level?

a) Addition and Subtraction b) Multiplication, Division and Addition

c) Multiplication, Division, Addition and Subtraction

d) Addition and Multiplication

37. Which one of the following has the highest precedence in the expression?

a) Exponential b) Addition c) Multiplication d) Parentheses

39. What will be the value of the following Python expression?

4 + 3 % 5

a) 4 b) 7 c) 2 d) 0

40. Evaluate the expression given below if A = 16 and B = 15.

A % B // A

a) 0.0 b) 0 c) 1.0 d) 1

41. Which of the following operators has its associativity from right to left?

a) + b) // c) % d) **

42. What will be the value of x in the following Python expression?

`x = int(43.55+2/2)`

- a) 43 b) 44 c) 22 d) 23

43. What is the value of the following expression?

`2+4.00, 2**4.0`

- a) (6.0, 16.0) b) (6.00, 16.00) c) (6, 16) d) (6.00, 16.0)

44. Which of the following is the truncation division operator?

- a) / b) % c) // d) |

45. What are the values of the following Python expressions?

`2**(3**2)`

`(2**3)**2`

`2**3**2`

- a) 64, 512, 64 b) 64, 64, 64 c) 512, 512, 512 d) 512, 64, 512

46. What will be the output of the following Python expression?

`print(4.00/(2.0+2.0))`

- a) Error b) 1.0 c) 1.00 d) 1

47. What will be the value of X in the following Python expression?

`X = 2+9*((3*12)-8)/10`

- a) 30.0 b) 30.8 c) 28.4 d) 27.2

48. Which of the following expressions involves coercion when evaluated in Python?

- a) `4.7 - 1.5` b) `7.9 * 6.3` c) `1.7 % 2` d) `3.4 + 4.6`

49. What will be the output of the following Python expression?

`24//6%3, 24//4//2`

- a) (1,3) b) (0,3) c) (1,0) d) (3,1)

50. Which among the following list of operators has the highest precedence?

`+, -, **, %, /, <<, >>, |`

- a) `<<, >>` b) `**` c) `|` d) `%`

51. What will be the value of the following Python expression?

`float(4+int(2.39)%2)`

- a) 5.0 b) 5 c) 4.0 d) 4

52. Which of the following expressions is an example of type conversion?

- a) `4.0 + float(3)` b) `5.3 + 6.3` c) `5.0 + 3` d) `3 + 7`

53. Which of the following expressions results in an error?

- a) `float('10')` b) `int('10')` c) `float('10.8')` d) `int('10.8')`

54. What will be the value of the following Python expression?

`4+2**5//10`

- a) 3 b) 7 c) 77 d) 0

55. What will be the output of the following Python code snippet if x=1?

$x \ll 2$

- a) 8 b) 1 c) 2 d) 4

56. What will be the output of the following Python expression?

`bin(29)`

- a) '0b10111' b) '0b11101' c) '0b11111' d) '0b11011'

57. What will be the value of x in the following Python expression?

`x >> 2 = 2`

- a) 8 b) 4 c) 2 d) 1

58. What will be the output of the following Python expression?

`int(1011)?`

- a) 1011 b) 11 c) 13 d) 1101

59. To find the decimal value of 1111, that is 15, we can use the function:

- a) `int(1111,10)` b) `int('1111',10)` c) `int(1111,2)` d) `int('1111',2)`

60. What will be the output of the following Python expression if x=15 and y=12?

`x & y`

- a) b1101 b) 0b1101 c) 12 d) 1101

61. Which of the following expressions results in an error?

- a) `int(1011)` b) `int('1011',23)` c) `int(1011,2)` d) `int('1011')`

62. Which of the following represents the bitwise XOR operator?

- a) & b) ^ c) | d) !

63. What is the value of the following Python expression?

`bin(0x8)`

- a) '0bx1000' b) 8 c) 1000 d) '0b1000'

64. What will be the output of the following Python expression?

`0x35 | 0x75`

- a) 115 b) 116 c) 117 d) 118

65. The one's complement of 110010101 is:

- a) 001101010 b) 110010101 c) 001101011 d) 110010100

66. Bitwise _____ gives 1 if either of the bits is 1 and 0 when both of the bits are 1.

- a) OR b) AND c) XOR d) NOT

67. What will be the output of the following Python expression?

`4^12`

- a) 2 b) 4 c) 8 d) 12

68. Any odd number on being AND-ed with _____ always gives 1. Hint: Any even number on being AND-ed with this value always gives 0.

- a) 10 b) 2 c) 1 d) 0

69. What will be the value of the following Python expression?

`bin(10-2)+bin(12^4)`

- a) 0b10000 b) 0b10001000 c) 0b1000b1000 d) 0b10000b1000

70. Which of the following expressions can be used to multiply a given number 'a' by 4?

- a) `a<<2` b) `a<<4` c) `a>>2` d) `a>>4`

71. What will be the output of the following Python code if `a=10` and `b =20`?

```
a=10
b=20
a=a^b
b=a^b
a=a^b
print(a,b)
```

- a) 10 20 b) 10 10 c) 20 10 d) 20 20

72. What is the two's complement of -44?

- a) 1011011 b) 11010100 c) 11101011 d) 10110011

73. What will be the output of the following Python expression?

`~100?`

- a) 101 b) -101 c) 100 d) -100

74. What will be the output of the following Python code snippet?

```
X="hi"
print("05d"%X)
```

- a) 00000hi b) 000hi c) hi000 d) error

75. What will be the output of the following Python code snippet?

```
X="san-foundry"
print("%56s",X)
```

- a) 56 blank spaces before san-foundry b) 56 blank spaces before san and foundry
c) 56 blank spaces after san-foundry d) no change

76. What will be the output of the following Python expression if `x=456`?

```
print("%-06d"%x)
```

- a) 000456 b) 456000 c) 456 d) error

77. What will be the output of the following Python expression if `X=345`?

```
print("%06d"%X)
```

- a) 345000 b) 000345 c) 000000345 d) 345000000

78. Which of the following formatting options can be used in order to add 'n' blank spaces after a given string 'S'?

- a) `print("-ns"%S)` b) `print("-ns"%S)` c) `print("%ns"%S)` d) `print("%-ns"%S)`

79. What will be the output of the following Python expression if `X = -122`?

```
print("-%06d"%x)
```

- a) -000122 b) 000122 c) -00122 d) -00122

80. What will be the output of the following Python expression if the value of `x` is 34?

```
print("%f"%x)
```

- a) 34.00 b) 34.0000 c) 34.000000 d) 34.00000000

81. What will be the output of the following Python expression if `x=56.236`?

```
print("%.2f"%x)
```

- a) 56.00 b) 56.24 c) 56.23 d) 0056.236

82. What will be the output of the following Python expression if `x=22.19`?

```
print("%5.2f"%x)
```

- a) 22.1900 b) 22.00000 c) 22.19 d) 22.20

83. What will be the output of the following Python code snippet?

```
'%d %s %g you' %(1, 'hello', 4.0)
```

- a) Error b) 1 hello you 4.0 c) 1 hello 4 you d) 1 4 hello you

84. The output of which of the codes shown below will be: "There are 4 blue birds."?

a) 'There are %g %d birds.' %4 %blue b) 'There are %d %s birds.' %(4, blue)

c) 'There are %s %d birds.' %[4, blue] d) 'There are %d %s birds.' 4, blue

85. What will be the output of the python code shown below for various styles of format specifiers?

```
x=1234
```

```
res='integers:...%d...%-6d...%06d' %(x, x, x)
```

```
res
```

a) 'integers:...1234...1234 ...001234' b) 'integers...1234...1234...123400'

c) 'integers:... 1234...1234...001234' d) 'integers:...1234...1234...001234'

86. What will be the output of the following Python code snippet?

```
x=3.3456789
```

```
'%f | %e | %g' %(x, x, x)
```

a) Error

b) '3.3456789 | 3.3456789+00 | 3.345678'

c) '3.345678 | 3.345678e+0 | 3.345678'

d) '3.345679 | 3.345679e+00 | 3.34568'

87. What will be the output of the following Python code snippet?

```
x=3.3456789
```

```
'%-6.2f | %05.2f | %+06.1f' %(x, x, x)
```

a) '3.35 | 03.35 | +003.3'

b) '3.3456789 | 03.3456789 | +03.3456789'

c) Error

d) '3.34 | 03.34 | 03.34+'

88. What will be the output of the following Python code snippet?

```
x=3.3456789
```

```
'%s' %x, str(x)
```

a) Error

b) ('3.3456789', '3.3456789')

c) (3.3456789, 3.3456789)

d) ('3.3456789', 3.3456789)

89. What will be the output of the following Python code snippet?

```
'%(qty)d more %(food)s' % {'qty':1, 'food': 'spam'}
```

a) Error

b) No output

c) '1 more foods'

d) '1 more spam'

90. What will be the output of the following Python code snippet?

```
a='hello'
```

```
q=10
```

```
vars()
```

a) {'a': 'hello', 'q': 10,plus built-in names set by Python....}

b) {.....Built in names set by Python.....}

c) {'a': 'hello', 'q': 10} d) Error

91. What will be the output of the following Python code?

```
s='{0}, {1}, and {2}'
```

```
s.format('hello', 'good', 'morning')
```

a) 'hello good and morning'

b) 'hello, good, morning'

c) 'hello, good, and morning'

d) Error

92. What will be the output of the following Python code?

```
s='%s, %s & %s'
```

```
s%('mumbai', 'kolkata', 'delhi')
```

a) mumbai kolkata & delhi b) Error c) No output d) 'mumbai, kolkata & delhi'

93. What will be the output of the following Python code?

```
t = '%(a)s, %(b)s, %(c)s'
```

```
t % dict(a='hello', b='world', c='universe')
```

a) 'hello, world, universe' b) 'hellos, worlds, universes' c) Error d) hellos, world, universe

94. What will be the output of the following Python code?

```
'{a}, {0}, {abc}'.format(10, a=2.5, abc=[1, 2])
```

a) Error b) '2.5, 10, [1, 2]' c) 2.5, 10, 1, 2 d) '10, 2.5, [1, 2]'

95. What will be the output of the following Python code?

```
'{0:.2f}'.format(1.234)
```

a) '1' b) '1.234' c) '1.23' d) '1.2'

96. What will be the output of the following Python code?

```
'%x %d' %(255, 255)
```

a) 'ff, 255' b) '255, 255' c) '15f, 15f' d) Error

97. What will be the output of the following Python code?

```
x = ['ab', 'cd']
```

```
for i in x:
```

```
    i.upper()
```

```
print(x)
```

a) ['ab', 'cd'] b) ['AB', 'CD'] c) [None, None] d) none of the mentioned

98. What will be the output of the following Python code?

```
x = ['ab', 'cd']
```

```
for i in x:
```

```
    x.append(i.upper())
```

```
print(x)
```

a) ['AB', 'CD'] b) ['ab', 'cd', 'AB', 'CD'] c) ['ab', 'cd'] d) none of the mentioned

99. What will be the output of the following Python code?

```
i = 1
```

```
while True:
```

```
    if i%3 == 0:
```

```
        break
```

```
    print(i)
```

```
    i += 1
```

a) 1 2 b) 1 2 3 c) error d) none of the mentioned

100. What will be the output of the following Python code?

```
i = 1
```

```
while True:
```

```
    if i%007 == 0:
```

```
        break
```

```
    print(i)
```

```
    i += 1
```

a) 1 2 3 4 5 6 b) 1 2 3 4 5 6 7 c) error d) none of the mentioned

101. What will be the output of the following Python code?

```
i = 5
while True:
    if i%11 == 0:
        break
    print(i)
    i += 1
```

- a) 5 6 7 8 9 10 b) 5 6 7 8 c) 5 6 d) error

102. What will be the output of the following Python code?

```
i = 5
while True:
    if i%9 == 0:
        break
    print(i)
    i += 1
```

- a) 5 6 7 8 b) 5 6 7 8 9 c) 5 6 7 8 9 10 11 12 13 14 15 d) error

103. What will be the output of the following Python code?

```
i = 1
while True:
    if i%2 == 0:
        break
    print(i)
    i += 2
```

- a) 1 b) 1 2 c) 1 2 3 4 5 6 ... d) 1 3 5 7 9 11 ...

104. What will be the output of the following Python code?

```
i = 2
while True:
    if i%3 == 0:
        break
    print(i)
    i += 2
```

- a) 2 4 6 8 10 ... b) 2 4 c) 2 3 d) error

105. What will be the output of the following Python code?

```
i = 1
while False:
    if i%2 == 0:
        break
    print(i)
    i += 2
```

- a) 1 b) 1 3 5 7 ... c) 1 2 3 4 ... d) none of the mentioned

106. What will be the output of the following Python code?

```
True = False
while True:
    print(True)
    break
```

- a) True b) False c) None d) none of the mentioned

107. What will be the output of the following Python code?

```
x = 123
```

for i in x:
 print(i)
a) 1 2 3 b) 123 c) error d) none of the mentioned

108. What will be the output of the following Python code?

```
d = {0: 'a', 1: 'b', 2: 'c'}  
for i in d:  
  print(i)  
a) 0 1 2      b) a b c      c) 0 a 1 b 2 c      d) none of the mentioned
```

109. What will be the output of the following Python code?

```
d = {0: 'a', 1: 'b', 2: 'c'}  
for x, y in d:  
  print(x, y)  
a) 0 1 2      b) a b c      c) 0 a 1 b 2 c      d) none of the mentioned
```

110. What will be the output of the following Python code?

```
d = {0: 'a', 1: 'b', 2: 'c'}  
for x, y in d.items():  
  print(x, y)  
a) 0 1 2      b) a b c      c) 0 a 1 b 2 c      d) none of the mentioned
```

111. What will be the output of the following Python code?

```
d = {0: 'a', 1: 'b', 2: 'c'}  
for x in d.keys():  
  print(d[x])  
a) 0 1 2      b) a b c      c) 0 a 1 b 2 c      d) none of the mentioned
```

112. What will be the output of the following Python code?

```
d = {0: 'a', 1: 'b', 2: 'c'}  
for x in d.values():  
  print(x)  
a) 0 1 2      b) a b c      c) 0 a 1 b 2 c      d) none of the mentioned
```

113. What will be the output of the following Python code?

```
d = {0: 'a', 1: 'b', 2: 'c'}  
for x in d.values():  
  print(d[x])  
a) 0 1 2      b) a b c      c) 0 a 1 b 2 c      d) none of the mentioned
```

114. What will be the output of the following Python code?

```
d = {0, 1, 2}  
for x in d.values():  
  print(x)  
a) 0 1 2      b) None None None      c) error      d) none of the mentioned
```

115. What will be the output of the following Python code?

```
d = {0, 1, 2}  
for x in d:  
  print(x)  
a) 0 1 2      b) {0, 1, 2} {0, 1, 2} {0, 1, 2}      c) error      d) none of the mentioned
```

116. What will be the output of the following Python code?

```
d = {0, 1, 2}
```


for x in d:

```
print(d.add(x))
```

a) 0 1 2 b) 0 1 2 0 1 2 0 1 2 ... c) None None None d) None of the mentioned

117. What will be the output of the following Python code?

```
for i in range(0):
```

```
print(i)
```

a) 0 b) no output c) error d) none of the mentioned

118. Which of the following commands will create a list?

a) list1 = list() b) list1 = [] c) list1 = list([1, 2, 3]) d) all of the mentioned

119. What is the output when we execute list("hello")?

a) ['h', 'e', 'l', 'l', 'o'] b) ['hello'] c) ['llo'] d) ['olleh']

120. Suppose listExample is ['h','e','l','l','o'], what is len(listExample)?

a) 5 b) 4 c) None d) Error

121. Suppose list1 is [2445,133,12454,123], what is max(list1)?

a) 2445 b) 133 c) 12454 d) 123

122. Suppose list1 is [3, 5, 25, 1, 3], what is min(list1)?

a) 3 b) 5 c) 25 d) 1

123. Suppose list1 is [1, 5, 9], what is sum(list1)?

a) 1 b) 9 c) 15 d) Error

124. To shuffle the list(say list1) what function do we use?

a) list1.shuffle() b) shuffle(list1)
c) random.shuffle(list1) d) random.shuffleList(list1)

View Answer

125. Suppose list1 is [4, 2, 2, 4, 5, 2, 1, 0], Which of the following is correct syntax for slicing operation?

a) print(list1[0]) b) print(list1[:2]) c) print(list1[:-2]) d) all of the mentioned

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)
III B.Tech– II Sem (MR 17-2017-18 Admitted Students)
I Mid Examination Subjective Question Bank

Subject: IOT

Branch /Specialization: IT

Name of the faculty: G.Sathish

Instructions:

- 1. All the questions carry equal marks**
- 2. Solve all the questions**

Q.No.	Question	Bloom's Taxonomy Level	CO
<u>Module I</u>			
1.	What is Internet of Things (IoT)? What are components required to design of IoT.	Understanding	1
OR			
2.	Demonstrate the different Characteristics of IoT.	Understanding	1
3.	Explain the Communication model in IoT.	Understanding	1
OR			
4.	Illustrate the IOT enabled technologies.	Understanding	1
5.	Explain the IOT Levels and Templates.	Understanding	1
OR			
6.	Demonstrate the IoT communication-APIs.	Understanding	1
7.	Explain about the IOT applications Smart Cities, Smart Home, Smart HealthCare, and Agriculture.	Understanding	1
OR			
8.	Illustrate the wireless sensor networks with examples.	Understanding	1
<u>Module II</u>			
1.	Illustrate the Machine to Machine communication (M2M).	Understanding	II
OR			
2.	Explain the Software defined networks.	Understanding	II

3.	Illustrate the Network function Virtualization.	Understanding	II
OR			
4.	Explain the SDN and NFV for IOT.	Understanding	II
5.	Dissect the basic of IOT System management with NETCONE.	Analyzing	II
OR			
6.	Examine the SNMP.	Analyzing	II
7.	Explain M2M and IOT System management.	Understanding	II
OR			
8.	Explain about the NETOPEER.	Understanding	II
<u>Module III</u>			
1.	Explain about the features of Python.	Understanding	III
OR			
2.	Illustrate the Python Data Types.	Understanding	III
3.	Examine the Python Data Structures.	Analyzing	III
OR			
4.	Dissect the Python Control of Flow and Functions.	Analyzing	III

Signature of the Faculty

Signature of the HoD

Malla Reddy Engineering College (Autonomous)
Department of Information Technology
III B.Tech II Sem I Mid Examinations (MR17-18 Admitted Batch)

Name of The Faculty: Mr.G.Sathish

Sub:IoT

1. Which of the following is responsible for Transport phase of an IOT___ []
 - a) Collects the data.
 - b) Transports the reliable data over the network
 - c) Analysis of data
 - d) Achieving of data
2. Achieving of data refers to_____ []
 - a) Legal retention period.
 - b) Grant access given to data.
 - c) Automatic deletion of data .
 - d) All of the above.
3. The term Reliable on network refers to_____ []
 - a)Data losts on network.
 - b) Data won't lost from sender to receiver.
 - c)Both a and b.
 - d) None of these.
4. Collect involves capturing sensory data and make it available for transportation. This process is also called_____ []
 - a)Integration
 - b)Transportation
 - c)Retrofitting
 - d)Authentication
- 5 .Which of the following is an example of external communication []
 - a)Ethernet.
 - b)USART.
 - c)RS-232 and RS-485.
 - d)All the above.
- 6 .I2C stands for _____ []
 - a)Inter Integrated circuit.
 - b) Inter Internal circuit .
 - c)Inter Inner circuit.
 - d) Inter Innovative circuit.
7. Which of the following is used as a control interface of an I2C_____ []
 - a)EEPROMs.
 - b)Sensors.
 - c) Real time clocks.
 - d)All of the above.
- 8.SPI Interface was developed by_____ []
 - a)Motorola
 - b)Phyllips Semiconductor
 - c)Zensys
 - d)Diffie-Hellman
- 9 . Which of the following includes applications of SPI_____ []
 - a)Secure digital cards
 - b)LCDs
 - c)Both of these
 - d)None of these
10. Which of the following wired communication supports multiple slaves___ []
 - a)I2C
 - b)SPI
 - c)UART
 - d)USART
- 11 .Which of the following capability make RS-485 the serial connection of choice in industrial applications._____ []
 - a)Noise-immunity
 - b)Multi-drop capability
 - c) Both a and b.
 - d)None of the above.
- 12.Applications of RS-485 includes_____ []
 - a)Used in wide range of computer and automation systems
 - b) Used in building automation
 - c)Used in modern railway
 - d) All of the above

13. Which of the following bits indicate actual data in UART packet _____ []
- a)5-9 data bits b)5-8 data bits
c)4-8 data bits d)4-9 data bits
14. Which of the following demonstration center is initiative of “SWATCH BARATH” _____ []
- a)Smart agriculture b)Smart environment
c)Smart health d)Smart waste management.
15. Lots of IOT devices generate a vast amount of data, which create a greater risk of _____ []
- a)Data and identity theft b)Device manipulation
c)IP theft d)All of the above
16. The Deity will launch a IOT education and awareness program to introduce IOT curriculum at M.tech and B.tech levels and ph.D courses along with certification courses in IOT lasting 2-6 weeks. This concept comes under which of the following pillars of an IOT. _____ []
- a) Capacity building and incubation. b) Incentives and engagements
c)Human Resource Development d)R & D and innovation
- 17.Which of the following identification can be based on “Inherent patterns” of the thing itself. []
- a) Face recognition b) Thumb impression
c) Iris recognition d) All of the above.
18. Which of the following chip senses to the physical change in the environment. ____ []
- a) Sensor b)Actuator
c) Transducer d)All of the above
19. USB stands for _____ []
- a)Universal Serial Bus b)Universal Sensor Bus
c)Unique Serial Bus d) Sensitive Bus
20. The term Encryption refers to _____ []
- a) Plain text to cipher text b)Cipher text to plain text
c)Both of these d)None of these
21. Which of the following refers the credentials of user matches with the credentials of stored data base in the system. C []
- a)Encryption b)Integrity
c)Authentication d)Encapsulation
- 22 .Which of the following port makes SPI Master architecture complex _____ []
- a)SLCK b)MOSI
c)SS d)MISO
23. The term RFID stands for _____ []
- a)Radio Frequency Identification b)Rare Frequency Identification
c)Radar Frequency Identification d)Radio Frame Identification
24. Which of the following wired communication includes most of the embedded processors. []
- a)SPI c)RS-232
c)I2C d)USART
- 25 .The term Half-duplex refers to _____ []
- a) Communication on both sides and simultaneously.
b) Communication on both sides but not simultaneously.
c) Communication from sender to receiver but not receiver to sender.

40. The MAC address comprises of a _____ bit number. []
 a)64 b)48
 c)24 d)96
41. Manufacturer ID consists of first _____ bits of MAC address. []
 a)64 b)48
 c)24 d)96
42. Which of the following is main reason to use MCU for IOT _____ []
 a)Simplicity b)Security
 c)Cost d)All of the above
43. Which of the following wired communication supports multi-master configuration. []
 a)I2C c)SPI
 c)RS-232 d)USART
44. Z-wave protocol architecture was developed by _____ []
 a)Kelvin Ashton b)Zensys
 c)Phyllips Semiconductor d)Motorola
45. The term IOT was first coined by _____ []
 Kelvin Ashton Zensys
 Phyllips Semiconductor Motorola
46. Which of the following is maximum data rate(M bit/s) for Zigbee _____ []
 a)800m b)0.72
 c)5-10m d)0.25
47. Which of the following topology was supported by Zigbee _____ []
 a)Mesh topology b)Star topology
 c)Tree topology d)All of the above
48. Which of the following factors reflect the topologies _____ []
 a)IP address. B)Phone numbers.
 c)Both of the above d)None of these
49. I2C devices can also have separate data interface for _____ []
 a)Digital TV tuners. b)Video decoders.
 c)Audio processors. d)All of these.
50. Which of the following statement is true regarding MCUs _____ []
 a)MCUs don't require OS to function.
 b)We can simply turn them on, upload firmware and they work.
 c)The coding required to program an MCU is minimal.
 d)All of the above.
51. The term Cloud refers to _____ []
 a)Network b)Internet
 c)Both d)None
52. Cloud Computing refers to _____ the application online []
 a)manipulating b)configuring
 c)Accessing d)All the above
53. Cloud computing offers online _____ []
 a)data storage b)Infrastructure
 c)Application d)All the above

54. Cloud can have _____ type of access []
 a) Public b) Private
 c) Hybrid and community d) All the above
55. The _____ Cloud allows systems and services to be easily accessible to the general public. []
 a) Public b) Private
 c) Hybrid and community d) All the above
56. The _____ cloud allows systems and services to be accessible within an organization. []
 a) Public b) Private
 c) Hybrid and community d) All the above
57. Service Models are the reference models that can be categorized into _____. []
 a) IaaS b) PaaS
 c) SaaS d) All the above
58. _____ provides access to fundamental resources such as physical machines, virtual machines, virtual storage, etc. []
 a) IaaS b) PaaS
 c) SaaS d) All the above
59. The concept of _____ came into existence in 1950 with implementation of mainframe computers, accessible via thin/static clients. []
 a) Computers b) Cloud Computing
 c) Big Data d) Hadoop
60. _____ provides the runtime environment for applications, development & deployment tools, etc. []
 a) PaaS b) IaaS
 c) Both d) None
61. _____ model allows to use software applications as a service to end users. []
 a) IaaS b) PaaS
 c) SaaS d) All the above
62. Select an advantage of Cloud _____. []
 a) One can access applications as utilities, over the Internet.
 b) Manipulate and configure the application online at any time.
 c) It does not require installing a specific piece of software to access or manipulating cloud application.
 d) All the Above
63. Cloud Computing allows the users to use web services and resources on _____. []
 a) On Demand Services b) Plans
 c) Both d) None
64. A _____ is any device which converts one form of energy into another []
 a) Transducer b) Actuator
 c) Sensor d) None
65. An actuator is a device that _____ something. []
 a) Process b) actuates or moves
 c) Analyze d) All
66. Examples of common transducers include the _____. []
 a) A microphone converts sound into electrical impulses and a loudspeaker converts electrical impulses into sound

b) A solar cell converts light into electricity and a thermocouple converts thermal energy into electrical energy.

c) An electric motor is a transducer for conversion of electricity into mechanical energy or motion.

d) All the above

67. A _____ is a device that receives and responds to a signal. []

a) Computer

b) Sensor

c) Both

d) None

68. Common electro-acoustic transducers _____ . []

a) Loudspeaker

b) Microphone

c) Hydrophone

d) All the above

69. _____ detect the presence of energy, changes in or the transfer of energy. []

a) Sensor

b) Actuator

c) Both

d) None

70. An electric motor is a type of an _____. []

a) electric actuator

b) Sensor

c) Both

d) None

71. _____ a specific type of transducer that converts energy into motion. []

a) Sensor

b) Actuator

c) Processor

d) Both

72. _____ is a device that connects mobile phone communication with the Microcontroller []

Bluetooth RFID

Adaptor None

73. To connect the Bluetooth device, you will need to find the Rx and TX pins on your _____. []

microcontroller. Sensor

Actuator Cloud

74. To communicate the Bluetooth with the PC we need to perform settings in the _____. []

microcontroller. HyperTerminal

Actuator Cloud

75. _____ is a prototype platform (open-source) based on an easy-to-use hardware and software. []

a) Arduino

b) C

c) C++

d) All

76. Arduino boards are able to read _____ signals from different sensors and turn it into an output such as activating a motor, turning LED on/off, connect to the cloud and many other actions. []

a) analog input

b) digital input

c) Both

d) None

77. Arduino board can be powered by using the USB cable from your computer. All you need to do is connect the _____ to the USB connection. []

a) USB cable

b) Power

c) Socket

d) All

78. Arduino boards can be powered directly from the _____ by connecting it to the Barrel Jack []

a) Battery

b) AC mains power supply

c) Both

d) None

79. The function of the _____ is to control the voltage given to the []

- c) LTE-A, and WiFi-Direct
d) All the above
94. ___ provide simple, low energy, and versatile options for identity and access tokens, connection bootstrapping, and payments. []
- a) RFID (radio-frequency identification) b) NFC (near-field communication)
c) Both d) None
95. _____ are radio protocols for creating low-rate private area networks. []
- a) ZigBee b) Z-Wave
c) Thread d) All the above
96. _____-Direct eliminates the need for an access point. []
- a) WiFi b) Sensor
c) Actuators d) All the above
97. IoT applied to government and safety allows improved _____. []
- a) law enforcement b) defense, city planning
c) economic management d) All the above
98. The _____ IoT Cloud is a platform for storing and processing IoT data. []
- a) Salesforce b) Raspberry
c) Both d) None
99. _____ is an operating system for IoT that specifically targets small IoT devices with limited memory, power, bandwidth, and processing power. []
- a) Contiki b) Salesforce
c) Big Data d) All
100. Hacking of IoT devices risks posed include _____. []
- a) data transfer, device access b) malfunctioning
c) devices always-on/always-connected devices d) All the above
101. Which of the following is a popular method of organizing wireless network topologies? []
- a) Agility b) Data synchronization
c) Software agents d) Clustering
102. What is the main objective of MANET _____. []
- a) Network reliability b) Accessibility of the node
c) Both a & b d) None
103. _____ are the software programs that continuously perform the perception of dynamic conditions in the environment, reasoning to interpret perceptions, solve problems, draw inferences and determine actions. []
- a) Autonomous agents b) Intelligent agents
c) Both a & b d) None
104. _____ suggests that agents should operate without the direct intervention of external forces and control over their actions & internal state. []
- a) Autonomy b) Reactivity
c) Both d) None
105. What are the following two requirements added by OSZU(1999) for distributed database? []
- a) Data handling and Concurrency control b) Recovery and Data Hiding
c) Query optimization & integrity d) Transactions Management and replication Protocols

106. The reference pay et al.2000 has _____ related date. []
 a)Event Data b)Semantic Data
 c)Security Data d)All data & Semantics
107. A Cluster design of IOT requires the use of _____. []
 a)Active networking to create collaboration b)Multi-hop and always dynamic interactions among objects
 c)Both d)None
108. _____ is any information that can be used to characterize the situation of an entity. []
 Context Switching
 Clustering Software agents
109. Clustering ____ are elected as representatives to route the traffic originated in the entire network. []
 a) Cluster Heads b) WSN
 c) MANET d) None
110. Which of the following is reflex based agent _____ []
 a)Pro-activity b)Reactivity
 c)Both d)None
111. Which of the following protocols supports synchronization _____ []
 a)DMAC b)WCA
 c)LIDAC d)ANDA
112. The clustering of intelligent computing devices has been widely researched in the fields of []
 a)WSN b)MANET
 c)Both d)None
113. How many clustering protocols that explicitly consider nodes energy as a factor for CH election []
 a)5 c)6
 c)8 d)10
114. Which of the following protocols doesn't comes under MANET type _____ []
 a)WCA b)DMAC
 c)Lin and Lin 2005 d)WU et al.2001
115. The complexity of DMAC protocol is _____. []
 a) $O(n)$ b) $O(d+m+1)^*$
 c) $O(n*c)^{**}$ d) $O(y)^{****}$
116. CH in cluster refers to _____. []
 a)Count Head b)Cluster Head
 c)Control Head d)Counter Head
117. More primitive "intelligent" products have encompassed other parts of the product lifecycle, they include []
 a)Retail b)Service
 c)Recycling d)All the above
118. In order to maintain a coherent cross-infrastructure view of the object information _____ of data occurs the architecture components is necessary. []
 a)Clustering b)Synchronization
 c)Software agents d)All
119. Who described a distributed database as a logically integrated collection of a shared data? []
 Bell & Grim son Motorola
 Dffie-hellman Phillips Semiconductor
120. _____ are the requirements for distributed database are outlined by Bell & Grimson(1992). []

- a)Data Handling & Query optimization b)Concurrency control & Recovery
c)Integrity & Security d)All
121. What is required to ensure data consistency regarding the data itself_____ []
a)Object data b)Security Data
c)Event Data d)All
122. IaaS resources such as _____ all are made available to the consumers on rent. []
a)virtual machines b)storages, bandwidth
c)IP addresses, monitoring services, firewalls. d)All
123. Common WSN features include _____ . []
a)Multi-hop communication b)Cooperative Applications
c)Events triggered inside the network d)All
- 124 .Big Data Characteristics are _____ . []
a) Volume b) Velocity
c) Variety d)All
125. _ are the excellent candidates for becoming the devices attached to the objects of an IoT. []
a)WSN b)MANET
c)Cloud d)None

Signature of the Faculty

Signature of the HOD

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)
III B.Tech– II Sem (MR 17-2017-18 Admitted Students)
I Mid Examination Subjective Question Bank

Subject: Software Quality Assurance and Testing
Name of the faculty: K. Selva sundari

Branch /Specialization: IT

Instructions:

- 1. All the questions carry equal marks**
- 2. Solve all the questions**

Q.No.	Question	Bloom's Taxonomy Level	CO
<u>Module I</u>			
1.	Summarize the steps briefly of software quality assurance.	Understanding	1
OR			
2.	Explain about ISO 9000 and its standards and CMMI.	Understanding	1
OR			
3.	List out the steps in SQA.	Analyzing	1
OR			
4.	Classify about components of SQA.	Analyzing	1
OR			
5.	Explain about PCMM.	Understanding	1
OR			
6.	Explain briefly about 6 sigma technology.	Understanding	1
OR			
7.	Explain about Malcom Balrdige method.	Understanding	1
OR			
8.	Classify CMM and CMMI.	Understanding	1
<u>Module II</u>			

1.	Explain about software quality metrics.	Analyzing	II
OR			
2.	Explain about product quality metrics.	Analyzing	II
OR			
3.	Demonstrate in detail In – Process quality metrics.	Understanding	II
OR			
4.	Illustrate on metrics for software maintenance.	Understanding	II
OR			
5.	Explain with example for metric programs.	Understanding	II
OR			
6.	Write about establishing quality requirements.	Understanding	II
OR			
7.	Compare and contrast identifying and implementing software quality metrics.	Analyzing	II
OR			
8.	Explain about validating software quality metrics.	Analyzing	II
<u>Module III</u>			
1.	Explain in detail about testing policy.	Understanding	III
OR			
2.	Explain in detail about structured approach to testing.	Understanding	III
OR			
3.	Write about test factors.	Analyzing	III
OR			
4.	Explain in detail about economics of system development life cycle.	Analyzing	III

Signature of the Faculty

Signature of the HoD



MALLA REDDY ENGINEERING COLLEGE

(Autonomous)

Maisammaguda, Dhullapally, Post via Kompally, Secunderabad – 500100.



Name of the Subject: Software Quality Assurance and Testing

Name of the faculty: K.Selvasundari

Department : Information Technology

Objective Questions

1. Which requirements are the foundation from which quality is measured? []
a) Hardware b) Software c) Programmers d) None of the mentioned
2. Which of the following is not included in failure costs? []
a) rework b) repair c) failure mode analysis d) none of the mentioned
3. Which of the following is not a SQA plan for a project? []
a) evaluations to be performed b) amount of technical work
c) audits and reviews to be performed
d) documents to be produced by the SQA group
4. Degree to which design specifications are followed in manufacturing the Product is called []
a) Quality Control b) Quality of conformance
c) Quality Assurance d) None of the mentioned
5. Which of the following is not included in External failure costs? []
a) testing b) help line support c) warranty work d) complaint resolution
6. Which of the following is not an appraisal cost in SQA? []
a) inter-process inspection b) maintenance c) quality planning d) testing
7. Who identifies, documents, and verifies that corrections have been made to the software? []
a) Project manager b) Project team c) SQA group d) All of the mentioned
8. The primary objective of formal technical reviews is to find _____ during the process so that they do not become defects after release of the software. []
a) errors b) equivalent faults c) failure cause d) none of the mentioned
9. What is not included in prevention costs? []
a) quality planning b) formal technical reviews c) test equipment
d) equipment calibration and maintenance
10. $SMI = [Mt - (Fa + Fc + Fd)]/Mt$. Here Mt is the number of modules []
a) in the current release b) in the current release that have been changed
c) from the preceding release that were deleted in the current release
d) none of the mentioned
11. Which of the following is not a metric for design model? []

- a) Interface design metrics b) Component-level metrics
c) Architectural metrics d) Complexity metrics
12. Statement and branch coverage metrics are part of []
a) Analysis Model b) Testing c) Design Model d) Source Code
13. Function Points in software engineering was first proposed by []
a) Booch b) Boehm c) Albrecht d) Jacobson
14. How many Information Domain Values are used for Function Point Computation? []
a) three b) four c) five d) six
15. Function Point Computation is given by the formula []
a) $FP = [\text{count total} * 0.65] + 0.01 * \text{sum}(Fi)$
b) $FP = \text{count total} * [0.65 + 0.01 * \text{sum}(Fi)]$.
c) $FP = \text{count total} * [0.65 + 0.01] * \text{sum}(Fi)$
d) $FP = [\text{count total} * 0.65 + 0.01] * \text{sum}(Fi)$
16. Architectural Design Metrics are _____ in nature. []
a) Black Box b) White Box c) Gray Box d) Green Box
17. Structural complexity of a module i is given as $S(i) = f * f(i)$. What does f symbolizes here? []
a) “fan check-out” of module I b) “fan check-in” of module i
c) “fan in” of module I d) “fan out” of module i
18. SMI stands for []
a) Software Mature Indicator b) Software Maturity Index
c) Software Mature Index d) Software Maturity Indicator
19. CMM stands for []
a) Capability Management Module b) Conservative Maturity Model
c) Capability Maturity Module d) Capability Maturity Model
20. According to ISO 9001, the causes of nonconforming product should be []
a) deleted b) eliminated c) identified d) eliminated and identified
21. CO policy in CMM means []
a) The leadership practices in Commitment to Perform
b) The organizational structure (groups) practices in Ability to Perform
c) The policy practices in Commitment to Perform
d) The planning practices in Commitment to Perform
22. ISO 9001 is not concerned with _____ of quality records. []
a) collection b) maintenance c) verification d) dis-positioning
23. Which of the following is not a maturity level in CMM? []
a) Design b) Repeatable c) Managed d) Optimizing
24. In CMM, the life cycle activities of requirements analysis, design, code, and test are described in []
a) Software Product Engineering b) Software Quality Assurance
c) Software Subcontract Management d) Software Quality Management

25. Which of the following requires design control measures, such as holding and recording design reviews and qualification tests? []
a) CMM b) ISO 9001 c) ISO 9000-3 d) None of the mentioned
26. The CMM emphasizes []
a) continuous process improvement b) the need to record information
c) the need to accept quality system d) none of the mentioned
27. _____ states that, where appropriate, adequate statistical techniques are identified and used to verify the acceptability of process capability and product characteristics. []
a) ISO 9001 b) ISO 9000-4 c) CMM d) All of the mentioned
28. IEEE 829 test plan documentation standard contains all of the following except []
a) Test items b) Test deliverables c) Test specifications d) Test tasks
29. When should testing be stopped? []
a) When all the planned tests have been run b) When all faults have been fixed correctly
c) When time has run out d) It depends on the risks for the system being tested
30. Which of the following statements is not true []
a) Test environments should be as similar to production environments as possible
b) The acceptance test does not necessarily include a regression test
c) Verification activities should not involve testers (reviews, inspections etc)
d) Performance testing can be done during unit testing as well as during the testing of whole system
31. In which order should tests be run? []
a) The most important tests first b) The order they are thought of
c) The easiest tests first(to give initial confidence)
d) The most difficult tests first(to allow maximum time for fixing)
32. When should you stop testing? []
a) When time for testing has run out. b) When the test completion criteria have been met
c) When all planned tests have been run d) When no faults have been found by the tests run
33. Which of the following is true? []
a) Component testing should be black box, system testing should be white box.
b) The more tests you run, the more bugs you will find.
c) The fewer bugs you find,the better your testing was
d) If you find a lot of bugs in testing, you should not be very confident about the quality of software
34. Which of the following is NOT a type of non-functional test? []
a) Performance b) Usability c) State-Transition d) Security
35. Which of the following tools would you use to detect a memory leak? []
a) State analysis b) Coverage analysis
c) Memory analysis d) Dynamic analysis
36. Which of the following statements are true? []
a) Faults in program specifications are the most expensive to fix.

- b) Faults in code are the most expensive to fix.
c) Faults in designs are the most expensive to fix.
d) Faults in requirements are the most expensive to fix
37. Enough testing has been performed when: []
a) No more faults are found. b) The required level of confidence has been achieved.
c) Time runs out. d) The users won't find any serious faults.
38. Which one of the following statements, about capture-replay tools, is NOT correct? []
a) They are used to support multi-user testing.
b) They are used to capture and animate user requirements.
c) They capture aspects of user behavior.
d) They are the most frequently purchased types of CAST tool.
39. How would you estimate the amount of re-testing likely to be required? []
a) Metrics from previous similar projects
b) Discussions with the development team
c) a & b d) Time allocated for regression testing
40. Which of the following should NOT normally be an objective for a test? []
a) To find faults in the software.
b) To assess whether the software is ready for release.
c) To prove that the software is correct.
d) To demonstrate that the software doesn't work.
41. Which of the following is a form of functional testing? []
a) Usability testing b) Boundary value analysis
c) Performance testing d) Security testing
42. A deviation from the specified or expected behavior that is visible to end-users is called: []
a) an error b) a fault c) a failure d) a defect
43. A configuration management system would NOT normally provide: []
a) Linkage of customer requirements to version numbers.
b) The precise differences in versions of software component source code.
c) Facilities to compare test results with expected results.
d) Restricted access to the source code library
44. Test cases are designed during: []
a) Test recording. b) Test configuration. c) Test planning.
d) Test specification
45. Which of the following statements about reviews is true? []
a) Reviews should be performed on specifications, code, and test plans
b) Reviews are the least effective way of testing code.
c) Reviews are unlikely to find faults in test plans.
d) Reviews cannot be performed on user requirements specifications.
46. In case of Large Systems []
a) Only few tests should be run
b) Test Cases written by good test engineers should be executed
c) Only Good Test Cases should be executed

d) Testing should be on the basis of Risk

47. Which of the following will be the best definition for Testing : []

- a) Testing is executing Software for the purpose of finding defects
- b) The purpose of testing is to demonstrate that the program is defect free
- c) The purpose of testing is to demonstrate that the program does what it is supposed to do
- d) The goal / purpose of testing is to demonstrate that the program works.

48. Which of the following is not a type of incremental testing approach? []

- a) Big-bang
- b) Top down
- c) Bottom up
- d) Functional incrimination

49. Test Conditions are derived from []

- a) Test Design
- b) Test Cases
- c) Test Data
- d) Specifications

50. Pick the best definition of quality []

- a) Quality is job one
- b) Zero defects
- c) Work as designed
- d) Conformance to requirements

51. Fault Masking is []

- a) Creating a test case which does not reveal a fault
- b) Error condition hiding another error condition
- c) Masking a fault by developer
- d) Masking a fault by a tester

52. Boundary value testing []

- a) Is the same as equivalence partitioning tests
- b) Tests combinations of input circumstances
- c) Test boundary conditions on, below and above the edges of input and output equivalence classes
- d) Is used in white box testing strategy

53. One Key reason why developers have difficulty testing their own work is: []

- a) Lack of technical documentation
- b) Lack of test tools on the market for developer's
- c) Lack of Objectivity
- d) Lack of training

54. In a review meeting a moderator is a person who: []

- a) Takes minutes of the meeting
- b) Takes telephone calls
- c) Mediates between people
- d) Writes the documents to be reviewed

55. Acceptance test cases are based on what? []

- a) Decision table
- b) Design
- c) Code
- d) Requirements

56. How much testing is enough? []

- a) This question is easy to answer
- b) This question is impossible to answer
- c) The answer depends on the risk for your industry, contract and special requirements
- d) This answer depends on the maturity of your developers

57. Which of the following is the component test standard? []

- a) IEEE 610
- b) IEEE 829
- c) BS7925-1
- d) BS7925-2

58. Which of the following is NOT a standard related to testing? []

- a) IEEE610
- b) IEEE829
- c) BS7925-1
- d) BS7925-2

59. The standard that gives definitions of testing terms is: []
a) ISO/IEC 12207 b) BS 7925-1 c) ANSI/IEEE 729 d) ANSI/IEEE 829
60. Which of the following is NOT true of incidents? []
a) Incidents are raised when expected and actual results differ.
b) Incidents may be raised against user requirements.
c) Incidents require investigation and/or correction.
d) Incident resolution is the responsibility of the author of the software under test.
61. Which of the following is false? []
a) In a system two different failures may have different severities.
b) A fault need not affect the reliability of a system.
c) A system is necessarily more reliable after debugging for the removal of a fault.
d) Undetected errors may lead to faults and eventually to incorrect behavior.
62. Which of the following does not affect the software quality and organizational performance? []
a) Market b) Product c) Technology d) People
63. The intent of project metrics is: []
a) Minimization of development schedule b) For strategic purposes
c) Assessing project quality on ongoing basis d) Minimization of development schedule and assessing project quality on ongoing basis
64. Which of the following is not a direct measure of SE process? []
a) Efficiency b) Cost c) Effort Applied d) All of the mentioned
65. Which of the following is an indirect measure of product? []
a) Quality b) Complexity c) Reliability d) All of the Mentioned
66. In size oriented metrics, metrics are developed based on the _____ []
a) number of Functions b) number of user inputs
c) number of lines of code d) amount of memory usage
67. Which of the following is not an information domain required for determining function point in FPA ? []
a) Number of user Input b) Number of user Inquiries
c) Number of external Interfaces d) Number of errors
68. Usability can be measured in terms of: []
a) Intellectual skill to learn the system b) Time required becoming moderately efficient in system usage
c) Net increase in productivity d) All of the mentioned
69. A graphical technique for finding if changes and variation in metrics data are meaningful is known as []
a) DRE (Defect Removal Efficiency) b) Function points analysis
c) Control Chart d) All of the mentioned
70. Defects removal efficiency (DRE) depends on: []
a) E – errors found before software delivery b) D – defects found after delivery to user
c) Both E and D d) Varies with project

71. Which of the following is the task of project indicators: []
a) help in assessment of status of ongoing project b) track potential risk
c) help in assessment of status of ongoing project & track potential risk
d) none of the mentioned
72. Which is the first step in the software development life cycle ? []
a) Analysis b) Design c) Problem/Opportunity Identification d) Development and Documentation
73. Which tool is use for structured designing ? []
a) Program flowchart b) Structure chart
c) Data-flow diagram d) Module
74. A step by step instruction used to solve a problem is known as []
a) Sequential structure b) A List
c) A plan d) An Algorithm
75. In the Analysis phase, the development of the _____ occurs, which is a clear statement of the goals and objectives of the project. []
a) documentation b) flowchart
c) program specification d) design
76. Actual programming of software code is done during the _____ step in the SDLC. []
a) Maintenance and Evaluation b) Design
c) Analysis d) Development and Documentation
77. Who designs and implement database structures. []
a) Programmers b) Project managers
c) Technical writers d) Database administrators
78. _____ is the process of translating a task into a series of commands that a computer will use to perform that task. []
a) Project design b) Installation
c) Systems analysis d) Programming
79. Debugging is: []
a) creating program code b) finding and correcting errors in the program code
c) identifying the task to be computerized d) creating the algorithm
80. In Design phase, which is the primary area of concern ? []
a) Architecture b) Data c) Interface d) All of the mentioned
81. The importance of software design can be summarized in a single word which is: []
a) Efficiency b) Accuracy c) Quality d) Complexity
82. Cohesion is a qualitative indication of the degree to which a module []
a) can be written more compactly
b) focuses on just one thing
c) is able to complete its function in a timely manner
d) is connected to other modules and the outside world
83. Coupling is a qualitative indication of the degree to which a module []

- a) can be written more compactly
- b) focuses on just one thing
- c) is able to complete its function in a timely manner
- d) is connected to other modules and the outside world

84) Requirement Engineering is not concern with _____. []

- a. Requirement Design
- b. Requirement Elicitation
- c. Requirement Analysis
- d. Requirement Documentation

85) When an expected result is not specified in test case template then _____. []

- a. We cannot run the test.
- b. It may be difficult to repeat the test.
- c. It may be difficult to determine if the test has passed or failed.
- d. We cannot automate the user inputs.

86) A test technique that involves testing with various ranges of valid and invalid inputs of a particular module or component functionality extensively is _____. []

- a. Gorilla Testing
- b. Monkey Testing
- c. Agile Testing
- d. Baseline Testing

87) End result of Software Requirement Analysis is _____. []

- a. Functional and Behavioral
- b. Architectural and Structural
- c. Usability and Reliability
- d. Algorithmic and Data Structure

88) Bug status is set to postpone due to _____. []

- a. Priority of that bug may low.
- b. Lack of time for the release.
- c. The bug may not be the major effect in the software.
- d. Data may be unavailable.

89) Which Testing is performed first? []

- a. Black box testing
- b. White box testing
- c. Dynamic testing
- d. Static testing

90) Verification and Validation uses _____. []

- a. Internal and External resources respectively.
- b. Internal resources only.
- c. External resources only.
- d. External and Internal resources respectively.

91) Testing beyond normal operational capacity is _____. []

- a. Load testing
- b. Performance testing
- c. Stress testing
- d. All of these.

92) The expected results of the software is _____. []

- a. Only important in system testing
- b. Only used in component testing
- c. Most useful when specified in advance
- d. Derived from the code.

93) Which is not true? []

- a. Condition coverage is also known as Predicate Coverage
- b. 100% condition coverage does not guarantee 100% decision coverage.
- c. Error guessing has rules for testing.
- d. Predicate Coverage uses Boolean values.

94) When different combination of input requires different combination of actions, Which of the following technique is used in such situation? []

- a. Boundary Value Analysis
- b. Equivalence Partition
- c. Decision Table
- d. Decision Coverage

- 95) Which of the following is not a part of Performance Testing? []
a. Measuring Transaction Rate b. Measuring Response Time.
c. Measuring the LOC. d. None of the above.
- 96) Which of the following is a software metric that provides a quantitative measure of the logical complexity of a program? []
a. Cyclomatic Complexity b. LOC
c. Function Point d. None of the above.
- 97) Which of the followings are Experience Based Techniques? []
a. Error guessing b. Equivalent partitioning
c. Exploratory testing d. Both a and c
- 98) What are the advantages of Agile Testing? []
a. Saves time b. Requires less planning and creates less documentation
c. Regular feedback from end users d. All the above
- 99) What is true regarding Static Analysis Tools? []
a. It compares actual and expected result. b. It can detect memory leaks.
c. It gives quality information about code without executing it.
d. It tell about percentage of a code coverage.
- 100) Followings are the Fundamental Test Processes arranged randomly. []
What will be the logical sequential flow of these activities?
1. Test Closure Activity 2. Implementation and Execution
3. Evaluating Exit Criteria and Reporting 4. Analysis and Design
5. Planning and Control
a. 5,4,2,1,3 b. 5,2,3,4,1 c. 5,4,2,3,1 d. 5,2,4,3,1
- 101) Arrange the following phases of a Formal Review according to the order in which they are conducted. []
1. Preparation 2. Kick off
3. Review meeting 4. Planning
5. Follow up 6. Rework
a. 1,2,4,3,6,5 b. 4,1,2,3,6,5 c. 4,2,1,3,6,5 d. 4,2,1,3,5,6
- 102) The order in which test levels are performed is: []
a) Unit, Integration, Acceptance, System b) Unit, System, Integration, Acceptance
c) Unit, Integration, System, Acceptance d) It depends on the nature of a project
- 103) System testing is a []
a) Black box testing b) Grey box testing
c) White box testing d) Both a and b
- 104) What is “V” Model? []
a) Test Design Technique b) Test Type
c) SDLC Model d) Test Level
- 105) Test cases are designed during which of the following stages? []
a) Test recording b) Test configuration
c) Test planning d) Test specification
- 106) Which is not the other name for structural testing? []

- a) Behavioral testing
- b) Glass box testing
- c) White box testing
- d) None of the above

107) The technique applied for usability testing is: []
a) White box b) Grey box c) Black box d) Combination of all of the system.

108) Which of the following is not a Test Type? []
a) Database Testing b) Security Testing c) Statement Testing d) Functional Testing

109) Static analysis can be best described as: []
a) The reviewing of test plans b) The analysis of batch programs
c) The use of black box testing d) The analysis of program code

110) Exhaustive testing is: []
a) Always possible b) Impractical but possible
c) Practically possible d) Impractical and impossible

111) Which is not a type of incremental testing approach? []
a) Bottom up b) Top down c) Big-bang d) Functional incrimination

112) White-box testing can be started: []
a) After installation b) After SRS creation
c) After programming d) After designing

113) What is Fault Masking? []
a) Creating a test case which does not reveal a fault
b) Error condition hiding another error condition
c) Masking a fault by developer
d) Masking a fault by a tester

114) Which of the following is the component test standard? []
a) BS7925-2 b) IEEE 829 c) BS7925-1 d) IEEE 610

115) Testing of software with actual data and in actual environment is known as? []
a) Regression testing b) Beta testing c) Alpha testing d) None of the above

116) Beta Testing is done at: []
a) Developer's end b) User's end c) User's & Developer's end d) None of the mentioned

117) A program with high cyclometric complexity is likely to be: []
a) Large b) Small c) Difficult to write d) Difficult to test

118) Unit testing is done by: []
a) Users b) Developers c) Customers d) None of the mentioned

119) Which of the following is not a Software Development Life Cycle Phase? []
a) Requirements Gathering b) Test Closure c) Coding d) Testing

120) In order to control cost, defects should ideally be detected in which phase: []
a) Coding b) Design c) Implementation d) Requirements Gathering

121) Error guessing is a: []
a) Test verification techniques b) Test data management techniques

c) Test control management techniques d) Test execution techniques

122) Which of the following is not a white box technique? []

- a) State transition testing b) Path testing
- c) Statement testing d) Data flow testing

123) Alpha testing is:

- a) Post-release testing by end user representatives at the developer's site []
- b) The first testing that is performed
- c) Pre-release testing by end user representatives at their sites
- d) Pre-release testing by end user representatives at the developer's site

124) Which of the following is/are Structural Testing Technique? []

- a. Statement Coverage b. Decision Coverage
- c. Condition Coverage d. All of the above

125) Which are the benefits of Static Testing? []

- a. Early feedback of a quality. b. Less rework cost.
- c. Increased developmental productivity. d. All of the above