

NSTU ICT OLYMPIAD

- Please give the correct ans:

[illegible]


13.	Which Programming Language Is Used For Android Application Development? a) NodeJs b) PHP c) JSX d) Java	
14.	Android Is Based On Which Kernal a) Linux b) Windows c) Mac d) Redhat	
15.	What is APK in android? a) Android pack b) Android packages c) Android Package Kit d) None of above	
16.	What type of computing technology refers to services and applications that typically run on a distributed network through virtualized resources? a. Distributed Computing b. Cloud Computing c. Soft Computing d. Parallel Computing	
17.	Which one of the following options can be considered as the Cloud? a. Hadoop b. Intranet c. Web Applications d. All of the mentioned	
18.	Cloud computing is a kind of abstraction which is based on the notion of combining physical resources and represents them as _____resources to users. a. Real b. Cloud c. Virtual d. none of the mentioned	
19.	Which of the model involves the special types of services that users can access on a Cloud Computing platform? a. Service b. Planning c. Deployment d. Application	
20.	Which one of the following refers to the user's part of the Cloud Computing system? a. back End b. Management c. Infrastruture d. Front End	
21.	The Foce.com and windows Azure are examples of which of the following? a.laas b. paas c. saas d. Both a and b	
22.	Which of the following are the features of cloud computing? a) Security b) Availability c) Large Network Access d) All of the mentioned	
23.	How long is an IPv6 address? a)32 bits b)128 bytes c)64 bits d)128 bits	
24.	You have 10 users plugged into a hub running 10Mbps half-duplex. There is a server connected to the switch running 10Mbps half-duplex as well. How much bandwidth does each host have to the server? a.100kbps b. 1Mbps c. 2Mbps d.10Mbps	

25.	<p>Which of the following is the valid host range for the subnet on which the IP address 192.168.168.188 255.255.255.192 resides?</p> <p>A 192.168.168.129-190</p> <p>B 192.168.168.129-191</p> <p>C 192.168.168.128-190</p> <p>D 192.168.168.128-192</p>	
26.	<p>Which protocol does DHCP use at the Transport layer?</p> <p>a. IP b.TCP c. UDP d.ARP</p>	
27.	<p>What is the main reason the OSI model was created?</p> <p>A To create a layered model larger than the DoD model.</p> <p>B So application developers can change only one layer's protocols at a time.</p> <p>C So different networks could communicate.</p> <p>D So Cisco could use the model.</p>	
28.	<p>Which type of topology is best suited for large businesses which must carefully control and coordinate the operation of distributed branch outlets?</p> <p>a.Ring b. Local Area c. Hierarchical d.Star</p>	
29.	<p>"Parity bits" are used for which of the following purposes?</p> <p>a. Encryption of data</p> <p>b. To transmit faster</p> <p>c. To detect errors</p> <p>d. To identify the user</p>	
30.	<p>The location of a resource on the internet is given by its?</p> <p>a. Protocol</p> <p>b. URL</p> <p>c. E-mail address</p> <p>d. ICQ</p>	
31.	<p>Find the answer that best completes the analogy:</p> <p>Book is to Reading as Fork is to:</p>	

	a. drawing b. writing c. stirring d. eating	
32.	If $\log_x (1/8) = -3/2$, then x is equal to A. -4 B. 4 C. 1/ D. 10	
33.	The population of a country increased by an average of 2% per year from 2000 to 2003. If the population of this country was 2 000 000 on December 31, 2003, then the population of this country on January 1, 2000, to the nearest thousand would have been A. 1 846 000 B. 1 852 000 C. 1 000 000 D. 1 500 000	
34.	If the graph of $y = f(x)$ is transformed into the graph of $2y - 6 = -4 f(x - 3)$, point (a, b) on the graph of $y = f(x)$ becomes point (A, B) on the graph of $2y - 6 = -4 f(x - 3)$ where A and B are given by A. $A = a - 3, B = b$ B. $A = a - 3, B = b$ C. $A = a + 3, B = -2b$ D. $A = a + 3, B = -2b + 3$	
35.	Which of the following variable names is correct in C language ? i) 1ab ii) var abc iii) \$T iv) count	
36.	_____ was the first personal computer virus? a. Zombie b. Elk Cloner c. Back Door d. Len Lehigh	
37.	Which protocol is used in online shopping? a. Atbash Cipher b. SSL/TLS c. IDs d. Both b & c	
38.	Which one of the following can be considered as the class of computer threats? a. Dos Attack b. Phishing c. Soliciting d. Both A and C	
39.	Which of the following refers to exploring the appropriate, ethical behaviors related to the online environment and digital media platform? a. Cyber law b. Cyberethics c. Cybersecurity d. Cybersafety	
40.	Which one of the following refers to the technique used for verifying the integrity of the message? a. Digital signature b. Decryption algorithm c. Protocol d. Message Digest	
41.	To protect the computer system against the hacker and different kind of viruses, one must always keep _____ on in the computer system. a. Antivirus b. Firewall c. VLC d. Script	
42.	Which of the following can be considered as the elements of cyber security?	

	a. Application Security c. Network Security	b. Operational Security d. All of the above	
43.	Hackers usually used the computer virus for _____ purpose. a. To log, monitor each and every user's stroke b. To gain access the sensitive information like user's Id and Passwords c. To corrupt the user's data stored in the computer system d. All of the above		
44.	The term "TCP/IP" stands for _____ a. Transmission Contribution protocol/ internet protocol b. Transmission Control Protocol/ internet protocol c. Transaction Control protocol/ internet protocol d. Transmission Control Protocol/ internet protocol		
45.	Which of the following is considered as the world's first antivirus program? a. Creeper b. Reaper c. Tinkered d. Ray Tomlinson		
46.	When “The Bangladesh Bank Robbery” also known as “The Bangladesh Bank Cyber Heist” took place? a. February 2016 b. February 2015 c. March 2016 d. March 2015		
47.	Which one of the following is considered as the most secure Linux operating system that also provides anonymity and the incognito option for securing the user's information? a. Ubuntu b. Tails c. Fedora d. All of the above		
48.	How does machine learning(ML) relate to AI? a. AI is a subfield of ML b. ML and AI are synonyms c. ML is a subfield of AI d. ML and AI are two completely different fields		
49.	The action _____ of a robot arm specify to Place block A on block B a. Stack(a,b) b. List(a,b) c. Queue(a,b) d. Array(a,b)		
50.	Machine Learning algorithms build a model based on sample data, known as _____ a. Training Data		

	<ul style="list-style-type: none"> b. Transfer Data c. Data Training d. None of the above 	
51.	Machine Learning is a subset of _____ <ul style="list-style-type: none"> a. Data Science b. Deep learning c. Artificial Intelligence d. None of the above 	
52.	What device below is not an example of Machine Learning? <ul style="list-style-type: none"> a. Google Assistant b. Speech to text c. Fitness tracking d. Search Engine 	
53.	Which of the given language is not commonly used for AI? <ul style="list-style-type: none"> a. LISP b. PROLOG c. Python d. Perl 	
54.	What are the two types of supervised learning? <ul style="list-style-type: none"> a. AI agent and environment b. Regression And Classification c. Classification And Validation d. None of the above 	
55.	The number of moveable joints in the base, the arm, and the end effectors of the robot determines _____ <ul style="list-style-type: none"> a. Degrees of freedom b. Payload capacity c. Operational limits d. Flexibility 	
56.	We can compute the coefficient of linear regression by using <ul style="list-style-type: none"> a. Gradient Descent b. Normal Equation c. Both a and b d. None of the above 	
57.	Identify the kind of learning algorithm for “facial identities for facial expressions”. <ul style="list-style-type: none"> a. Prediction b. Recognition Patterns c. Recognizing anomalies d. Generating patters 	
58.	What is the application of machine learning methods to a large database called? <ul style="list-style-type: none"> a. Big data computing b. Internet of things c. Data mining 	

	d. Artificial Intelligence	
59.	Identify the type of learning in which labeled training data is used. a. Semi-supervised learning b. Supervised learning c. Reinforcement learning d. Unsupervised learning	
60.	The best AI agent is one which _____ a. Needs user inputs for solving any problem b. Can solve a problem on its own without any human intervention c. Need a similar exemplary problem in its knowledge base d. All of the above	
61.	Who is known as the Father of AI? a. Fisher Ada b. Alan Turing c. John McCarthy d. Allen Newell	
62.	If two dices are thrown independently, what is the probability of the sum of the numbers on top of dices be 4? a. 3/36 b. 5/36 c. 2/36 d. 6/36	
63.	 <p>If I randomly draw a blue ball, what is the probability of being in 1st bucket</p> a. 3/12 b. 1/12 c. 5/12 d. 1/2	
64.	Alice writes the numbers 1, 2, 3, 4, 5, and 6 on a blackboard. Bob selects two of these numbers, erases both of them, and writes down their sum on the blackboard. For example, if Bob chose the numbers 3 and 4, the blackboard would contain the numbers 1, 2, 5, 6, and 7. Bob continues until there is only one number left on the board. What are the possible values of that number? a. 22 b. 15 c. 20 d. 21	

65.	<p>What if bob selects two of these numbers from given numbers in question 3 and erases both of them and writes down their positive difference on the blackboard. For example, if Bob chose the numbers 3 and 4, the blackboard would contain the numbers 1, 1, 2, 5, and 6. Bob continues until there is only one number left on the board. Will the number be even?</p> <p>A. True B. False</p>	
66.	<p>When counting from 1-100 how many times will you come across number 7?</p> <p>a.18 b. 19 c. 20 d.21</p>	

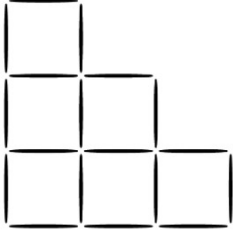
● Please give the ans in 1 or 2 statements:

Q.NO.	Question statement
1.	<p>"A" is a 3-digit positive integer number. If "A" is divide by 3 then there is always a remainder of 2.Now, how many ways you can construct "A"?</p> <p>Ans:</p>
2.	<p>Mr. Ajij loves to play with his shadow. To play with his shadow Ajij stands at the center of a field.He can see the sun on the clear sky. But Alas! Ajij is unable to find his shadow at his around. If Ajij is standing at the point "P". Now, from point "P" find the angle between the sun and the surface of the earth.</p> <p>Ans:</p>
3.	<p>There are two rows with containing some points. At the first row there are "N" points and at the second row there are "M" points. How many quadrilateral you can build by connecting the points of the rows N and M?</p> <p>Ans:</p>
4.	<p>Which 3 numbers have the same answer whether they're added or multiplied together?</p> <p>Ans:</p>

5.	I am an odd number. Take away one letter and I become even. What number am I? Ans:
6.	What is a compiler ? Ans:
7.	What do you mean by Online Judge? Ans:
8.	Write any three online judges you know. Ans:
9.	What is IDE ? Give an example . Ans:
10.	Define variable in C Ans:
11.	Is Zero a positive number , negative number or neither positive nor negative number? Ans:
12.	Define data type.Describe the following sections of a problem in Online judge. (Answer it in one or two lines) Ans:

13.	Problem description – Ans:
14.	Input / Input format – Ans:
15.	Output / Output format – Ans:
16.	Time limit of problem – Ans:
17.	Divide 30 by half, and add ten. What do you get? Ans:
18.	There are 50 dogs signed up for a dog show. There are 36 more small dogs than large dogs. How many small dogs have signed up to compete? Ans:
19.	If 10 people can do a piece of work in 5 days, working 2 hours a day, how long will 2 people take to do the same work, working 5 hours a day? Ans:
20.	What will be the next number of this sequence 4,5,8,17,44 ? Ans:

21.	<p>Which is the smallest integer which is greater than 86,666 in which there are four identical numbers?</p> <p>Ans:</p>
22.	<p>There is a three-digit number. The second digit is five times as big as the third digit, while the first digit is three less than the second digit. What is the number?</p> <p>Ans:</p>
23.	<p>Rahim, Sami and Shanto are three brothers. Interestingly their current age is prime. What's more interesting is that the difference between their ages is also prime. How old are they ?</p> <p>Ans:</p>
24.	<p>Given 5 numbers 1,2,3,4,5. In one operation you can subtract 1 from any numbers and add that 1 to any numbers. What will be the minimum number of operations to make all of the numbers equal?</p> <p>Ans:</p>
25.	<p>_____ Operating System is very much used for Cyber Security.</p> <p>Ans:</p>
26.	<p>When “Digital security ACT” of Bangladesh was adopted?</p> <p>Ans:</p>

27.	<p>What does the acronym VIRUS stand for</p> <p>Ans:</p>
28.	<p>How many trailing zeros(0) in the value of 100! ?</p> <p>Ans:</p>
29.	<p>Abdullah made a three step stair using 18 toothpicks. How many toothpicks are needed for making a 5 step stair like this?</p>  <p>Ans:</p>
30.	<p>Irina goes to a shop to buy 36 chips with necessary money. In the shop, she found out, after buying a chips she will need half the money less to buy the 2nd chips. She will have to buy the 3rd chip by its' original price but she will need half the money less to buy the 4th chips. If Irina wants to buy chips with all the money she got, how many chips can she buy?</p> <p>Ans:</p>
31.	<p>$A*B$ means $A \times B^3$, What is the value of $(3*2)*3$?</p> <p>Ans:</p>

32.	The smallest product one could get by multiplying three different numbers from the set {1, 2, 0, -3, -5, 6} is? Ans:
33.	How many types machine learning algorithms can be divided? Name them. Ans:
34.	In which special purpose r proframming and julia programming language are used for Ans: