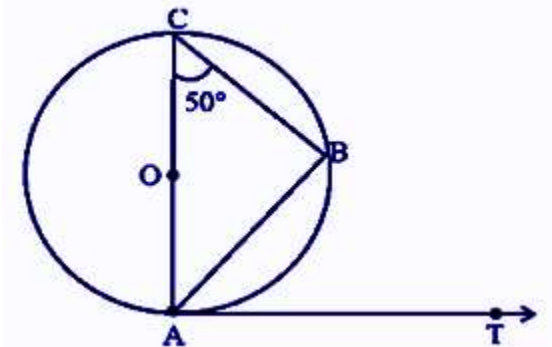


Lumbini Technological University
Institute of Engineering & Information Technology
4 Years B.Tech. in Information Technology (B.Tech. in IT)
Entrance Examination
Model Question (2080)

Maths

40X 1 = 40

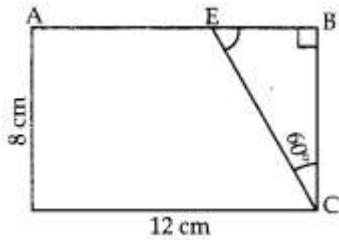
- 1) for some integer n , which one is even
(a) $n+2$ (b) $2n+1$ (c) $2n$ (d) n^2+2
- 2) Which fraction is the biggest?
(a) $3/5$ (b) $5/8$ (c) $1/2$ (d) $4/7$
- 3) The value of p for which the polynomial $x^3 + 4x^2 - px + 8$ is exactly divisible by $(x - 2)$ is
(a) 0 (b) 3 (c) 5 (d) 16
- 4) The slope of the line $ax + by + c = 0$ is
(a) a/b (b) $-a/b$ (c) $-c/b$ (d) c/b
- 5) The number in form of $4p+3$, where p is whole number, will always be
(a) even (b) odd (c) multiple of three (d) prime
- 6) The length of the tangent from an external point A on a circle with center O is
(a) always greater than OA (b) equal to OA
(c) always less than OA (d) cannot be estimated
- 7) In given circle with center O and tangent AT , value of angle BAT is



- (a) 65° (b) 60° (c) 50° (d) 40°
- 8) If $x < 0$ then $|x|$ is equal to
a. (a) $-x$ (b) x (c) 0 (d) 1
 - 9) A matrix obtained by changing the rows into columns or vice versa is called
(a) additive inverse of A (b) transpose of A
(c) determinant of A (d) order of A

- 10) Radha invested some money in a bank at rate of 6% per annum. At simple interest, after 9 years, she got Rs. 8470. How much did she invest?
 (a) Rs. 5250 (b) Rs. 6550 (c) Rs. 6400 (d) Rs. 5500

- 11) In given figure of rectangle, the value of CE is



- (a) 1 cm (b) 2 cm (c) 3 cm (d) 4 cm
- 12) The 21th term of the AP whose first two terms are -3 and 4 is
 (a) 17 (b) 137 (c) 143 (d) -143
- 13) In the sequence: $2, 1, 1/2, 1/4, \dots$ What the number should come next?
 (a) $1/3$ (b) $1/8$ (c) $2/8$ (d) $1/16$
- 14) If $\cos x = \frac{2}{3}$ then $\tan x$ is equal to
 (a) $5/2$ (b) $\sqrt{5/2}$ (c) $\sqrt{5}/2$ (d) $2/\sqrt{5}$
- 15) If $\cos (40^\circ + A) = \sin 30^\circ$, then value of A is
 (a) 30° (b) 40° (c) 60° (d) 20°
- 16) A TV is purchased at Rs. 5000 and sold at Rs. 4000, find the lost percent.
 (a) 10% (b) 20% (c) 25% (d) 28%
- 17) If the cost price is 25% of selling price. Then what is the profit percent.
 (a) 75% (b) 200% (c) 300% (d) 25%
- 18) A man buys an item at Rs. 1200 and sells it at the loss of 20 percent. Then what is the selling price of that item
 (a) Rs. 660 (b) Rs. 760 (c) Rs. 860 (d) Rs. 960
- 19) The median of the data 13, 15, 16, 17, 19, 20 is:
 (a) $30/2$ (b) $31/2$ (c) $33/2$ (d) $35/2$
- 20) The probability of event equal to zero is called;
 (a) Unsure event (b) Sure Event
 (c) Impossible event (d) Independent event
- 21) If we throw two coins in the air, then the probability of getting both tails will be:
 (a) $1/2$ (b) $1/4$ (c) 2 (d) 4

- 22) The distance of point A (2, 4) from x-axis is
(a) 2 (b) 4 (c) -2 (d) -4
- 23) A function $f(x)$ is said to be an odd function if
(a) $f(-x) = f(x)$
(b) $f(-x) = -f(x)$
(c) $f(-x) = k f(x)$ where k is a constant
(d) $f(-x) = k + f(x)$ where k is a odd number.
- 24) If A and B are sets and $A \cup B = A \cap B$, then
(a) $A = \Phi$ (b) $B = \Phi$ (c) $A = B$ (d) $A \subset B$.
- 25) The set $A = \{x: x \in \mathbb{N} \text{ and } x^2 + 3x + 2 = 0\}$ is
(a) Null set (b) Finite set
(c) Infinite set (d) A set with two elements.
- 26) The number of subsets of a set containing n elements is
(a) n^2 (b) 2^n (c) 2^{n-1} (d) $2n$
- 27) A set which contain exactly one element is called
(a) unary set (b) empty set (c) single set (d) singleton set
- 28) The range of the function $f(x) = 3x - 2$, is
(a) $(-\infty, \infty)$ (b) $\mathbb{R} - \{3\}$ (c) $(-\infty, 0)$ (d) $(0, -\infty)$
- 29) If A completes a particular work in 4 days and B completes the same work in 12 days. How many days will it take if they work together?
(a) 5 (b) 4 (c) 3 (d) 2
- 30) In the total investment of Rs 500,000, B's share is 20%. While A's share is 40% of the B's. What is the share of A?
(a) Rs 50,000 (b) Rs 34,000 (c) Rs 36,000 (d) Rs 40,000
- 31) Solution of the equation $x^2 + 1 = 0$ is
(a) 1 (b) -1 (c) $\pm i$ (d) 0

- 41) Suresh here for the last seven years.
(a) worked (b) is working (c) has worked (d) works
- 42) I went to the bookshop 'Harry Potter'.
(a) For buying (b) to buy (c) to buying (d) for to buy
- 43) I wish you making that noise. It's bothering me.
(a) would stop (b) are going to stop (c) stop (d) can stop
- 44) Let us play cash.
(a) by (b) in (c) for (d) at
- 45) Let's have fun?
(a) will we (b) will you (c) shall we (d) shall you
- 46) They went to the parkthe rain.
(a) despite (b) in spite (c) under (d) avoiding
- 47) The city center was crowded tourists.
(a) for (b) of (c) with (d) by
- 48) The plural form of "ox" is:
(a) oxen (b) oxes (c) oxez (d) none
- 49) The feminine form of deer is:
(a) deeress (b) doe (c) stag (d) none
- 50) Neither of them a problem.
(a) anticipate (b) anticipates (c) have anticipated (d) are anticipating
- 51) She her mobile phone yesterday.
(a) loss (b) loose (c) lose (d) lost
- 52) Emma is olderAlice, while Jolie is oldest.
(a) than, an (b) from, the (c) then, the (d) than, the
- 53) I can't walk anymore, I'm tired.
(a) too (b) so (c) such (d) so such
- 54) My brother was trembling cold.
(a) from (b) with (c) of (d) by
- 55) He is occurred cheating.
(a) for (b) of (c) on (d) in

56) Which of the following word is an adverb?

- (a) good (b) bad (c) well (d) melt

57) For me, breakfast is best meal of the day.

- (a) a (b) an (c) the (d) none of the above

58) light comes from the sun.

- (a) a (b) an (c) the (d) no article

59) I saw old man yesterday.

- (a) a (b) an (c) the (d) no article

60) He has climbedMt. Everest.

- (a) a (b) an (c) the (d) none

Computer

20X 1 = 20

61) Which of the following is not a characteristic of a computer?

- a) Versatility b) Accuracy c) Diligence d) I.Q.

62) Which of the following is the smallest unit of data in a computer?

- a) Bit b) KB c) Nibble d) Byte

63) Which of the following is an output device?

- a) Keyboard b) Mouse c) Light pen d) VDU

64) Which of the following values is the correct value of this binary code 1011 and 1111?

- a) 11 and 14 b) 12 and 15 c) 11 and 15 d) 12 and 14

65) Which of the following statement is correct about the virus?

- a) The virus is a small program that infects a large program in the user system.
b) The virus is a file of the hacker.
c) The virus is an operating system that controls the entire OS.
d) None of these

66) Which one of the following shortcut keys is used to paste a file?

- (a) Ctrl + c (b) Ctrl + p (c) Ctrl + v (d) Ctrl + x

- 67) What is the full form of PNG in the computer image format ?
- Printable New Graphics
 - Portable New Graphics
 - Portable Network Graphics
 - Printable Network Graphics
- 68) What is the full of GIGO ?
- Garbage In Garbage Out
 - Good Input Good Output
 - Green In Green Out
 - Generation in Generation Out
- 69) What is full form of GUI in terms of computers?
- Graphical user Instrument
 - Graphical unified Interface
 - Graphical unified Instrument
 - Graphical user Interface
- 70) Which of the following statement is correct about the URL?
- URL is a software that connects to the internet
 - URL is the address of the web page
 - URL is the domain name
 - All of the these
- 71) A _____ is an application that allows the user to compose and edit simple documents.
- Word processor
 - Spreadsheet
 - Email utility
 - Browsers
- 72) A program that can retrieve files from the world wide web and render text, images or sounds encoded in the files.
- Browser
 - Internet
 - Server
 - Web Server
- 73) WWW stands for
- World Whole Web
 - Wide World Web
 - Web World Wide
 - World Wide Web
- 74) Which among following first generation of computers had ?
- Vaccum Tubes and Magnetic Drum
 - Integrated Circuits
 - Magnetic Tape and Transistors
 - All of above
- 75) In which of the following form, data is stored in computer ?
- Decimal
 - Binary
 - Hexa Decimal
 - Octal
- 76) What is LINUX ?
- Operating System
 - Application Program
 - Malware
 - Firmware

77) ROM is ?

- (a) non volatile (b) volatile (c) both the above (d) None of above

78) Who is known as first computer programmer ?

- (a) Lady Augusta Ada Lovelace (b) Charles Babbage
(c) Bjarne Stroustrup (d) Dennis Ritchie

79) Where are saved files stored in computer?

- (a) RAM (b) Hard disk (c) Cache (d) Any of above

80) Which operations are performed by RAM?

- (a) Read (b) Write (c) Read and Write (d) Depends on computer

IQ

20X 1 = 20

81) If the vowels were taken out, which letter would be the tenth consonant from the beginning of the alphabet? Select appropriate answer from following

- (a) M (b) L (c) N (d) R

82) If the value of A is 1 and that of B is 2 and that of C is 3 and so on. What is the total value of all alphabets?

- (a) 348 (b) 349 (c) 350 (d) 351

83) Suppose a series is 1, 9, 25, 49, ?, 121, the number comes at the place of question mark in the given series is:

- a) 91 (b) 21 (c) 52 (d) 81

84) P # Q means P is the father of Q

P + Q means P is the mother of Q

P - Q means P is the brother of Q

P * Q means P is the sister of Q

If A + B # C - D, then A is D's

- (a) Sister (b) Grandfather (c) Grandmother (d) Father

85) What number is as much less than 5731 as it is greater than 3289?

- (a) 4501 (b) 4510 (c) 9020 (d) 5410

86) Which word does NOT belong with the others?

- (a) Inch (b) ounce (c) centimeter (d) yard

87) Odometer is to mileage as compass is to

- (a) Speed (b) hiking (c) needle (d) direction

88) Marathon is to race as hibernation is to

- (a) Winter (b) bear (c) dream (d) sleep

89) If AIRLINE is written as ENILRIA7, then RAILWAY will be written as -

- (a) YAWLIAR7 (b) YAWLIAR8 (c) YAWILAR7 (d) YAWILAR8

90) Which of the following is the odd one from the given alternatives?

- (a) Driving (b) Diving (c) Swimming (d) Sailing

91) Statement 1: John runs faster than George ;; Statement 2: Tom runs faster than John

Statement 3: George runs faster than Tom

If statement 1 and statement 2 are true, statement 3 will be -

- (a) True (b) false (c) uncertain (d) None of the above

92) The day before yesterday was Saturday. What will be the day after tomorrow?

- (a) Thursday (b) Friday (c) Wednesday (d) Monday

93) Raman says "Anuj's mother is the only daughter of my mother." How is Anuj related to Raman?

- (a) Brother (b) Nephew (c) Father (d) None of the above

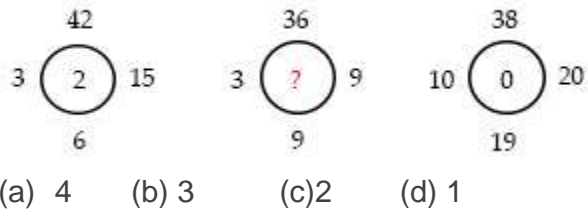
94) Shoe always has _____.

- (a) Laces (b) Leather (c) Strap (d) Soles

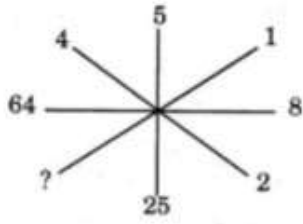
95) In a horse race Sahil came in ahead of Ram. Sahil finished after Shashi. Sonam beat Shashi but finished after Rahul. Who came second?

- (a) Sahil (b) Shashi (c) Sonam (d) Rahul

96) What value replaces " ? " in the below figure ?

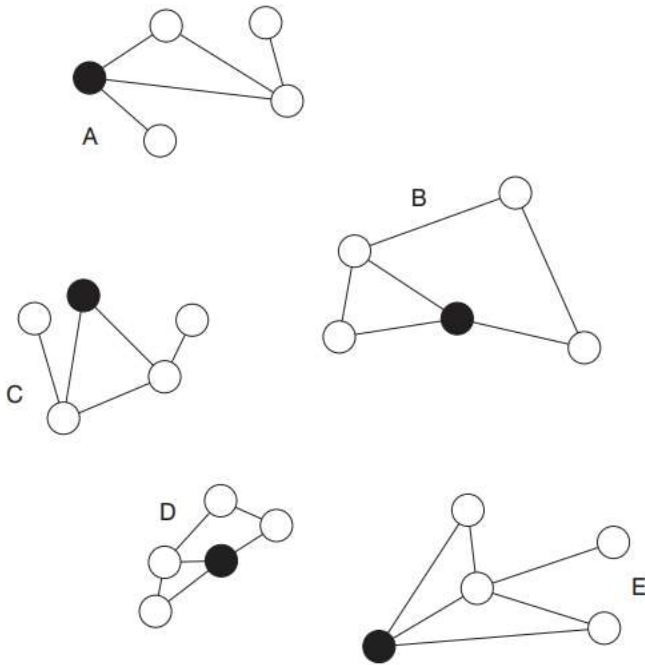


97) Select the option that gives the number missing from the following figure.



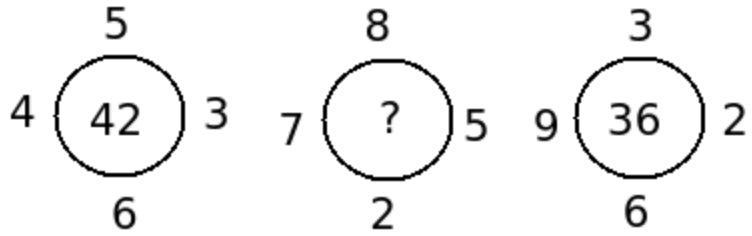
- (a) 4 (b) 3 (c) 2 (D) 1

98) Which is the odd one out?



- (a) A (b) B (c) C (d) D (e) E

99) Find the missing number



(a) 50

(b) 51

(c) 48

(d) 53

100) Arrange the following words in a meaningful sequence -

1. Sun
2. Rain
3. Child
4. Rainbow
5. Happy

(a) 2, 1, 4, 3, 5

(b) 3, 2, 1, 4, 5

(c) 2, 1, 3, 4, 5

(d) 4, 5, 1, 3, 2