<u>Model Questions for BIT (Bachelor's in Information Technology) Programme</u>

<u>English</u>

1. I like ………… in my spare time
    (a) reading   (b) read   (c) to read   (d) to reading

2. I went to the bookshop .... 'Harry Potter'.
    (a) For buying   (b) to buy   (c) to buying   (d) for to buy

3. He is interested .... learning Romanian.
    (a) in   (b) on   (c) to   (d) for

4. Would you like …. …. … to drink, Sir ?
    (a) anything   (b) anywhere   (c) nothing   (d) something

5. What ………. next weekend?
    (a) do you do   (b) are you doing (c) will you do   (d) did you do

6. How many students in your class ………. from Bangladesh?
    (a) comes   (b) come   (c) came   (d) are coming

7. I am hungry. I want two …….. of chicken .
    (a) plates   (b) pieces   (c) bowls   (d) gasses

8. They are ugly and expensive; ……. ….. people buy them
    (a) though   (b) yet   (c) still   (d) besides

9. What time .....
    (a) the train leaves?   (b) leaves the train?
     (c) is the train leaving?   (d) does the train leave?

10. I promise I .... study harder.
    (a) will   (b) am going to   (c) may   (d) must

11. How long ……………………. English?
    (a) are you learning   (b) have you been learning
    (c) do you learn   (d) you learn

12. I hope that a school ……. For village children
    (a) opens   (b) is opened   (c) has to be opened   (d) be opened

13. Closest similar meaning of word 'compunction' is
    (a) remorse   (b) merciful   (c) connive   (d) recklessness

14. Closest similar meaning of word 'demolish' is
    (a) repair   (b) consume   (c) humiliate   (d) destroy

15. Closest similar meaning of word 'beneficent' is
    (a) charitable   (b) imagery   (c) profitable   (d) cost-effective

16. Closest similar meaning of word 'mendacity' is
    (a) mandatory   (b) untruthfulness   (c) veracity   (d) potential

17. Closest opposite meaning of word 'theocracy' is
    (a) hierocracy   (b) ideology   (c) conservative   (d) church state

18. Closest opposite meaning of word 'integrate' is
    (a) accommodate   (b) compose   (c) articulate   (d) segregate

19. Closest opposite meaning of word 'Calm' is
    (a) excited   (b) restful   (c) cool   (d) serene

20. Closest opposite meaning of word 'wordy' is
    (a) rambling   (b) concise   (c) diffuse   (d) voluble

21. A teacher needs to discuss in classes, it _____ curiosity in students.
    (a) creates   (b) created   (c) create   (d) will creates

22. Successful people always _____ two things: one, determination and second, sincerity.
    (a) had   (b) doing   (c) did   (d) have

23. They like swimming, whenever they have a leisure time. (Which word is a verbal noun?)
    (a) Leisure   (b) free   (c) like   (d) swimming

24. Nobody likes heap of garbage in front of his house. (Which word is a collective noun?)
    (a) leap of garbage   (b) in front   (c) house   (d) likes

25. Find interrogative pronoun in sentence "Why did you not call me.? This made me alarmed."
    (a) you   (b) me   (c) why   (d) did

26. Right grammatical category of the underlined phrase in the sentence " Ram handed a book to his sister" is
    (a) complement   (b) direct object   (c) adjunct   (d) indirect object

27. Which of the following is noun?
    (a) real   (b) readable   (c) reliable   (d) reality

28. English is today the third ………… native language worldwide after Chinese and Hindi, with some 380 million speakers.
(a) the most spoken   (b) the more spoken   (c) much spoken   (d) most spoken

29. We could barely get any information at the airport. ……..people seemed to have …… idea about the flights.
(a) Many / any   (b) A lot of / any   (c) Few / no   (d) Only a few / some

30. ……… his friends speaks any English.
(a) Some   (b) All   (c) Many   (d) Neither of

31. These differences between two photographs ……… with the help of Photoshop.
(a) should remove   (b) have to remove
 (c) could have been removed   (d) must have removed

32. New legislation ………in congress but it ………by many.
(a) was introduced / wasn't accepted   (b) was introduced / didn't accept
(c) is introduced / won't accept   (d) introduced / hadn't been accepted

33. Mike has been told he will have to pay the fine ---- his high rank in the military.
(a) even if   (b) furthermore   (c) despite   (d) on purpose that

34. The economy in China is booming; ……. many foreign investors are planning to enter China's market.
(a) Nonetheless   (b) so as to   (c) in addition to   (d) that's why

35. I wish you ……… making that noise. It's bothering me.
(a) would stop   (b) are going to stop   (c) stop   (d) can stop

36. …… more help, I could call my neighbor.
(a) Needed   (b) Should I need   (c) I have needed   (d) I should need

37. If you plan to take a long trip in the car, you must get a full tank of gas or you ---- out of gas.
(a) have to run   (b) should have run   (c) had better run   (d) might run

38. If you want to get a good night's sleep, you ---- any tea or coffee in the evenings.
(a) would rather drink   (b) don't have to drink
(c) mustn't drink   (d) not able to drink

39. It is not easy for many civil servants to …………… on their salaries as the inflation rate is extremely high.
(a) get by   (b) turn up   (c) wear out   (d) run over

40. I thought the party was going to be boring, but it ……..to be the most unforgettable evening of my life.
(a) turned out   (b) looked around   (c) passed away   (d) fell back on

Math

41. Every rational number is also
    (a) a natural number   (b) an integer   (c) a whole number   (d) a real number

42. If $a - ib = \frac{3-2i}{3+2i}$ then $a^2 + b^2 =$
    (a) 1   (b) $\frac{4}{3}$ (c) $\frac{3}{5}$ (d) $\frac{2}{9}$

43. Given $U = \{1,2,3, ...,15\}, A = \{x: x \geq 8\}, B = \{x: x \leq 4\}$ then $\overline{A \cap B} =$
    (a) $\emptyset$ (b) U   (c) AUB   (d) None of these

44. Which are the equal ordered pairs ?
    (a) (2,4), (4,2)   (b) (2,2), (4,4)   (c) (4,2), (4,2)   (d) all of them

45. $S_\infty = \frac{a}{1-r}$, when a, r & S_∞ denotes first term, common ratio and sum to infinity. If
    (a) $|r| < 1$ (b) $|r| > 1$ (c) $|r| = 1$ (d) none of these

46. If $^{21}C_x = {}^{21}C_y$ then which is true ?
    (a) $x \neq y$ (b) x=y   (c) x+y=21   (d) either (b) or (c)

47. Which is not correct ?
    (a) $(A^{T)})^T = A$ (b) $(A + B)^T = A^T + B^T$ (c) $(AB)^T = A^T B^T$ (d) $(AB)^T = B^T A^T$

48. Which is not correct ?

    (a) $\begin{vmatrix} a_1 & a_2 & a_3 \\ b_1 & b_2 & b_3 \\ c_1 & c_2 & c_3 \end{vmatrix} = \begin{vmatrix} a_1 & b_1 & c_1 \\ a_2 & b_2 & b_2 \\ a_3 & b_3 & c_3 \end{vmatrix}$ (b) $\begin{vmatrix} 0 & a_2 & a_3 \\ b_1 & 0 & b_3 \\ c_1 & c_2 & 0 \end{vmatrix} = 0$

    (c) $\begin{vmatrix} a_1 & a_2 & a_3 \\ 0 & 0 & 0 \\ c_1 & c_2 & c_3 \end{vmatrix} = 0$ (d) $\begin{vmatrix} a_1 & b_1 & c_1 \\ a_2 & b_2 & b_2 \\ a_3 & b_3 & c_3 \end{vmatrix} = \begin{vmatrix} a_1 + ka_3 & b_1 + kb_3 & c_1 + kc_3 \\ a_2 & b_2 & c_2 \\ a_3 & b_3 & c_3 \end{vmatrix}$

49. The equation x=0 represents

    (a) x-axis   (b) y-axis   (c) the origin   (d) none of these

50. The angle between the lines xy=0 is

    (a) 0^0 (b) 60^0 (c) 90^0 (d) 120^0

51. Which is correct ?

    (a) $\log_{10} 1 = 0$ (b) $\log_{10} 0.1 = -1$ (c) $\log_{10} 10 = 1$ (d) all of them

52. The domain of $y = f(x) = \frac{1}{x}$ is

    (a) $R - \{0\}$ (b) R (c) (-2,1)   (d) (-1,1)

53. Let $f : R \to R$ be defined by $f(x) = 10x - 7$ then $f^{-1}(x) =$

    (a) $\frac{1}{10x+7}$ (b) $\frac{1}{10x-7}$ (c) $\frac{x+7}{10}$ (d) $\frac{x-7}{10}$

54. If t be a positive real number then the least value of $t + \frac{1}{t}$ is :

    (a) 1   (b) 2   (c) 4   (d) 3

55. 11The value of $\lim_{x \to \infty} \frac{\sqrt{x+1}}{\sqrt{x}+1}$ is

    (a) 0   (b) 1   (c) $\frac{1}{2}$ (d) -1

56. The point of discontinuity of the function $f(x) = \frac{x^3-27}{x-3}$ is

    (a) 3   (b) 6   (c) 27   (d) 0

57. If $x + y = xy$ then $\frac{dy}{dx} =$

    (a) $\frac{x-1}{y-1}$ (b) $\frac{y-1}{1-x}$ (c) $\frac{1-x}{y-1}$ (d) $\frac{1+y}{1-x}$

58. If $x = 2at, y = at^2$ then $\frac{dy}{dx} =$

    (a) t   (b) $\frac{1}{t}$ (c) t^2 (d) 1

59. If the total cost function C=50x+5000. The marginal cost function MC is

    (a) $50 + \frac{5000}{x}$ (b) $25x^2 + 5000x$ (c) 50   (d) none of these

60. The maximum value of $\sin\theta\cos\theta$ is

   (a) 1   (b) $\frac{1}{\sqrt{2}}$ (c) $\frac{\sqrt{3}}{2}$ (d) $\frac{1}{2}$

61. The function f(x)=2-3x is
   (a) decreasing   (b) increasing
   (c) neither decreasing nor increasing   (d) doesn't exist

62. $\int \log x \, dx =$

   (a) $\log x + c$ (b) $x\log x - x + c$ (c) $x\log x + x + c$ (d) $x\log x + c$

63. $\int_{-2}^{2}|x| \, dx$ is equal to

   (a) 0   (b) 1   (c) 2   (d) 4

64. If the marginal cost of a product is given by $MC = 8 + 6x - 3x^2$ and the fixed cost is Rs.150. The cost function is

   (a) $8x + 6x^2 - 6x^3$ (b) $\frac{8}{x} + 6 - 3x$

   (c) $8x + 3x^2 - x^3 + 150$ (d) $8x + 3x^2 - x^3 - 150$

65. The area of the circle $x^2 + y^2 = 16 \; is$

   (a) 4π (b) $4\pi^2$ (c) $16\pi^2$ (d) 16π

66. The following table gives the two kinds of food and two kinds of vitamin. If qty of F_1=x, qty of F_2=y then formulate the following problem to minimizing the cost.

Vitamins	Food		Daily Requirement
	F_1	F_2	
V_1	4	8	80
V_2	6	4	100
Cost per unit food	Rs. 3	Rs. 5	

   (a) min(z) = 3x+5y subject to 4x+8y $\geq$ 80, $6x + 4y \geq 100$

   (b) min(z) = 3x+5y subject to 4x+8y $\leq$ 80, $6x + 4y \leq 100$

   (c) min(z) = 3x+5y subject to 4x+6y $\leq$ 80, $8x + 4y \leq 100$

   (d) min(z) = 3x+5y subject to 4x+6y $\geq$ 80, $8x + 4y \geq 100$

67. Which is the measure of dispersion ?

    (a) mean   (b) median   (c) mode   (d) range

68. Two brothers: Mr. X and Mr. Y appear in an interview for getting the scholarship. The scholarship can be provided for two persons. The probability of getting scholarship by Mr. X is $\frac{1}{7}$ and getting by Mr. Y is $\frac{1}{5}$. What is the probability that both of them will get scholarship ?

    (a) $\frac{12}{35}$ (b) $\frac{1}{35}$ (c) $\frac{23}{35}$ (d) none of these

69. The equation $sinx + cosx = 2\ has$

    (a) infinite solution   (b) finite solution   (c) no solution   (d) unique solution

70. $sin^{-1}x + cos^{-1}x =$

    (a) $\frac{\pi}{x}$ (b) $-\pi/2$ (c) $\pi/2 - x$ (d) 1

71. The system of linear equations 2x+3y=5 and 4x+6x=9 are

    (a) consistent & dependent   (b) consistent & independent

    (c) inconsistent & independent   (d) inconsistent & dependent

72. The degree of polynomial equation $ax^2 + bx + c = 0$ is

    (a) 0   (b) 1   (c) 2   (d) not define

73. If one root of a quadratic equation in the real coefficient is $\sqrt{2}$ then equation is

    (a) $x^2 + \sqrt{2}x + 2 = 0$ (b) $x^2 + 2 = 0$

    (c) $x^2 - 2 = 0$ (d) none of these

74. The equation $x^2 + y^2 = 0$ represents

    (a) circle   (b) degenerate circle   (c) an empty set   (d) a straight line

75. If four quantities a,b,c and d are such that a:b=3:4, b:c = 6:7 and c:d=8:9, then the ratio between a and d is

    (a) 3:8   (b) 1:3   (c) 4:7   (d) 7:4

76. By selling 175 pens, a stationary store gains the selling price of 50 pens. What is his gair percent?

    (a) 40%   (b) $28\frac{4}{7}\%$ (c) 50%   (d) none of these

77. A, B, C and D enter into a partnership. A, B, C, subscribe $\frac{1}{3}, \frac{1}{4}, \frac{1}{5}$ of the capital respectively and D, the rest. What is the share of profit of D if the total profit is Rs. 24600?

    (a) Rs. 8200   (b) Rs. 5330   (c) Rs. 6150   (d) Rs. 4920

78. If US \$1 = Rs. 78.15. How many US dollars are equivalent To Rs. 10,000?

    (a) \$127.96   (b) \$172.96   (c) \$ 196.72   (d) \$172.62

79. The effective rate corresponding to 10% p.a. convertible quarterly is

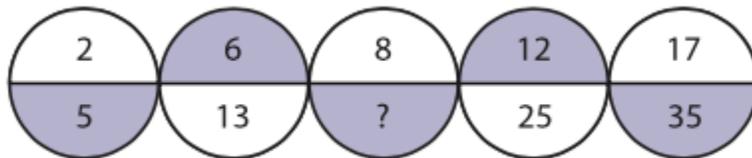   (a) 40%   (b) 10.1%   (c) 10.4%   (d) none of these

80. The present value of an immediate annuity is; where symbols are there usual meaning

    (a) $\frac{p}{i}\{(l + i)^n - l\}$ (b) $\frac{p}{i}(l + i)\{(l + i)^n - l\}$

    (c) $\frac{p}{i}\{l - \frac{l}{(l+i)^n}\}$ (d) $\frac{p(l+i)}{i}\{l - \frac{l}{(l+i)^n}\}$

General Knowledge + Logical Reasoning

81. The study of sound & sound waves is called -----------
    (a) Mechanical   (b) Technical   (c) Acoustics   (d) Sound Waves

82. A river always has
    (a) Delta   (b) Fishes   (c) Boats   (d) Banks

83. Which is the international sports competition that is held only in Nepal?
    (a) Dandi Biyo   (b) Elephant polo   (c) Bhale judhai   (d) Kabaddi

84. Which mountain is understood by 'Killer Mountain'?
    (a) Manaslu   (b) Ama Dablam   (c) Cho Oyu   (d) Kala Patthar

85. Which of the following is necessary for 'knowledge'?
    (a) School   (b) Teacher   (c) Text book   (d) Learning

86. Two concepts are related in some way; establish the same relationship on the basis of the alternatives given for **UTS : FDC : : WVU : ?**
    (a) YWV   (b) WXY   (c) UVW   (d) HGF

87. Insert the appropriate arithmetical signs in (?,?) to establish the relation: **9 ? 6 ? 3 = 27**

    (a) +, ×   (b) - , +   (c) ÷, +   (d) + , ÷

88. If LIGHT is coded as GILTH, find the code for RAINY.

    (a) IARYN   (b) ARINY   (c) NAIRY   (d) RINAY

89. A, B and C are intelligent, A, D and E are laborious, D, C and E are honest and A, B, and E are ambitious. Which of the following are not honest?

    (a) A and B   b) C and A   c) A and D   d) A and D

90. What is missing number in the given series below?

2	6	8	12	17
5	13	?	25	35

    (a) 17   (b)27   (c) 35   (d) 41

IT general

91. Which of following is not a search engine?

    (a) Google   (b) Altavista   (c) Yahoo   (d) Firefox Mozilla

92. Name of the screen that recognizes touch input is :

    (a) Recog screen   (b) Point Screen   (c) Touch Screen   (d) Android Screen

93. Arrange in ascending order the units of memory TB, KB, GB, MB

    (a) TB>MB>GB>KB   (b) MB>GB>TB>KB
    (c) TB>GB>MB>KB   (d) GB>MB>KB>TB

94. What is full form of WWW

    (a) World Wide Web   (b) Wide World Web
    (c) Web Wide World   (d) World Web Wide

95. Junk email is also called
    (a) Spam   (b) Spoof   (c) Sniffer   (d) Jmail

96. Which of following is used to make presentation slides?

    (a) Powerpoint   (b) Word   (c) Excel   (d) Internet

97. Who is father of computer?

    (a) Charles Babbage   (b) Balise Pascal   (c) Garden Moore   (d) John Von Neumann

98. Which of following is used as a memory in computers?

    (a) RAM   (b) Keyboard   (c) Printer   (d) Mouse

99. MS-Word is an example of ………………………

    (a) Operating System   (b) Application Software

    (c) Output Device   (d) Processing Device

100. The printed output from a computer is known as……..

    (a) Soft copy   (b) Hard Copy   (c) Photo Copy   (d) Paper