ENTRANCE EXAMINATION FOR ADMISSION, MAY 2011.

M.B.A. (BANKING TECHNOLOGY)

COURSE CODE : 381

Register Number :

Signature of the Invigilator
(*with date*)

COURSE CODE : 381

Time : 2 Hours   Max : 400 Marks

Instructions to Candidates :

1.   Write your Register Number within the box provided on the top of this page and fill in the page 1 of the answer sheet using pen.

2.   Do not write your name anywhere in this booklet or answer sheet. Violation of this entails disqualification.

3.   Read each question carefully and shade the relevant answer (A) or (B) or (C) or (D) in the relevant box of the ANSWER SHEET using HB pencil.

4.   Avoid blind guessing. A wrong answer will fetch you –1 mark and the correct answer will fetch 4 marks.

5.   Do not write anything in the question paper. Use the white sheets attached at the end for rough works.

6.   Do not open the question paper until the start signal is given.

7.   Do not attempt to answer after stop signal is given. Any such attempt will disqualify your candidature.

8.   On stop signal, keep the question paper and the answer sheet on your table and wait for the invigilator to collect them.

9.   Use of Calculators, Tables, etc. are prohibited.

Choose the right Synonyms from the following :

1. EAGER
   (A) Clever   (B) Enthusiastic   (C) curious   (D) devoted

2. TARNISH
   (A) Ornate   (B) Blemish   (C) destroy   (D) Scrub

3. AMPLE
   (A) sufficient (B) shift   (C) detailed   (D) Huge

4. DEPLETE
   (A) Destroy   (B) Finish   (C) Exhaust   (D) Vanish

5. PREDICT
   (A) Explain   (B) Foretell   (C) Assert   (D) Observe

6. DISPARITY
   (A) Injustice   (B) Unlikeness   (C) Partiality   (D) Distortion

Choose the right antonyms from the following :

7. PRIDE
   (A) Humility   (B) Shame   (C) Humbleness   (D) Debasement

8. ENOUGH
   (A) Inadequate (B) Scarce   (C) Deficit   (D) Less

9. MISERLY
   (A) a Hospitable (B) Generous   (C) Extravagant (D) Philanthropic

10. HAPPINESS
    (A) Contentment (B) Grief   (C) Renunciation (D) Beatitude

11. ENRICH
    (A) Diminish   (B) Poor   (C) Change   (D) Affluent

12. AUDACIOUS
    (A) Timid   (B) Vulgar   (C) Low   (D) Unpracticed

Find the sentence having the grammatical error for the following six questions :

13. (A) We discussed about the problem so thoroughly

    (B) On the eve of the examination

    (C) That I found it very easy to work it out.

    (D) If I had known

14. (A) An Indian ship   (B) Laden with merchandise

    (C) Got drowned in the Pacific Ocean   (D) Due to heavy rain

15. (A) I could not put up in a hotel

    (B) Because the boarding and lodging charges

    (C) Were exorbitant and

    (D) I cannot afford that

16. (A) The Prime Minister has said that India would not have spent so much on defense

    (B) If some of the neighboring countries

    (C) Adopted the policy of

    (D) Restricting defense expenditure

17. (A) If I had known   (B) This yesterday

    (C) I will have helped him.   (D) Without much delay

18. (A) Unless you stop to make noise at once (B) I will have no option but to

    (C) Bring the matter   (D) To the attention of the police.

Select the most effective word from the given words to fill in the blank to make the sentence meaningfully complete :

19. We found him very ——————— even at the age of seventy nine.

    (A) Drowsy   (B) Young   (C) Active   (D) Old

20. Their project was accepted and therefore they are very ———————.

    (A) Ecstasy   (B) relevant   (C) Pleasure   (D) Elated

21. We had to face a lot of ——————— because of heavy rain.

    (A) Problems   (B) Compliments   (C) Sympathy   (D) Results

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22. His —————— arrival gave all of us pleasant surprise.

    (A)   Planned   (B)   Informed   (C)   Sudden   (D)   Irregular

23. Fortunately, the accident did not cause her any —————— injury.

    (A)   Minor   (B)   Small   (C)   Serious   (D)   Remarkable

24. Despite repeated —————— he did not give up his efforts.

    (A)   Victories   (B)   Failures   (C)   Attempts   (D)   Practices

25. The Military had to use Army force to —————— the agitators to maintain the law and order.

    (A)   Provoke   (B)   Control   (C)   Punish   (D)   Walk away

MATHEMATICS

26. The number of rows in the fourth table of $\sim [p^\wedge(\sim q)]$ is

    (A)   2   (B)   4   (C)   6   (D)   8

27. Every homogenous system (linear)

    (A)   is always consistent   (B)   has only trivial solution

    (C)   has infinitely many solutions   (D)   need not be consistent

28. The order of matrix $B = [1\ 2\ 5\ 7]$ is

    (A) $1 * 4$ (B) $4 * 1$ (C) $2 * 1$ (D) $1 * 1$

29. Number of elements in a matrix of order $2 * 3$ is

    (A)   5   (B)   2   (C)   3   (D)   6

30. The matrix $\begin{bmatrix} 8 & 5 & 7 \\ 0 & 6 & 4 \\ 0 & 0 & 2 \end{bmatrix}$ is

    (A)   the upper triangular   (B)   lower triangular

    (C)   square matrix   (D)   null matrix

31. If the nth term of an A.P. is $(2n - 1)$ then the sum of n terms is

    (A) $n^2 - 1$ (B) $(2n - 1)$ (C) n^2 (D) $n^2 + 1$

32. The sum of n terms of an A.P. is n^2. Then its common difference is

    (A)   2   (B)   −2   (C)   ± 2   (D)   1

33. The third term of a G.P is 5, the product of its first five term is

(A)   25   (B)   625   (C)   3125   (D)   625 * 25

34. The first term of G.P. is 1. The sum of third and fifth terms is 90. Find the common ratio of the G.P

(A) ± 2 (B) $\sqrt{10}$ (C) ± 3 (D) -3

35. When the terms of a G.P. are written in reverse order the progression formed is

(A)   A.P.   (B)   G.P.   (C)   H.P.   (D)   A.P. and H.P.

36. Given that $(1, -1)$ is the centre of the circle $x^2 + y^2 + ax + by - 9 = 0$.

(A)   3   (B) $\sqrt{2}$ (C) $\sqrt{11}$ (D)   11

37. The equation of a circle with centre $(0,0)$ and passing through the point $(5, 0)$ is

(A) $x^2 + y^2 - 10x = 0$ (B) $x^2 + y^2 = 25$

(C) $x^2 + y^2 + 10\,x = 0$ (D) $x^2 + y^2 - 10y = 0$

38. The radius of the circle $x^2 + y^2 - 2x + 4y - 4 = 0$ is

(A)   1   (B)   2   (C)   3   (D)   4

39. Identify the correct statements of the following :

(i)   a relation is a function

(ii)   a function is a relation

(iii)   a function which is not a relation is not possible

(iv)   a relation which is not a function is possible

(A)   (ii), (iii), (iv)   (B)   (ii) and (iii)   (C)   (iii), (iv)   (D)   all

40. Which of the following curves is concave down?

(A) $y = -x^2$ (B) $y = x^2$ (C) $y = e^x$ (D) $x^2 + 2x - 3$

41. The mean of a binomial distribution is 5 and its standard deviation is 2. Then the value of n and p are

(A)   (4/5,25)   (B)   (25,4/5)   (C)   (1/5, 25)   (D)   (25,1/5)

42. If the mean and standard deviation of a binomial distribution are 12 and 2 respectively. Then the value of its parameter p is

(A)   1/2   (B)   1/3   (C)   2/3   (D)   1/4

43. In 16 throws of a die getting an even number is considered a success. Then the variance of the successes is

(A) 4   (B) 6   (C) 2   (D) 256

44. A box contains 6 red and 4 white balls. If 3 balls are drawn at random, the probability of getting 2 white balls is

(A) 1/20   (B) 18/125   (C) 4/25   (D) 3/10

45. If 2 cards are drawn from a well shuffled pack of 52 cards, the probability that they are of the same colours is

(A) 1/2   (B) 26/51   (C) 25/51   (D) 25/102

46. The eccentricity of the hyperbola $12y^2 - 4x^2 - 24x + 48y - 12z = 0$ is

(A) 4   (B) 3   (C) 2   (D) 6

47. The equation of chord of constant of tangents from (5, 4) to the hyperbola $4x^2 - 6y^2 = 24$ is

(A) $9x + 10y + 12 = 0$ (B) $10x + 9y - 12 = 0$

(C) $9x - 10y + 12 = 0$ (D) $10x - 9y - 12 = 0$

48. The slope of the normal to the curve $y = 3x^2$ at the point whose x–coordinate is 2 , is

(A) 1/13   (B) 1/14   (C) –1/12   (D) 1/12

49. Which of the following is not a binary operation on R?

(A) $a * b = ab$ (B) $a * b = a - b$

(C) $a * b = \sqrt{ab}$ (D) $a * b = \sqrt{a^2 + b^2}$

50. The velocity v of a particle moving along a straight line when at a distance x from the origin is given by $a + by^2 = x^2$, where a and b are constants. Then the acceleration is

(A) b/x (B) a/x (C) x/b (D) x/a

51. The Second Generation Computer was based on

    (A) Vacuum Tube   (B) Silicon Chips

    (C) Transistor   (D) Bio Chips

52. What do you call the programs that are used to find out possible faults and their causes?

    (A) Operating system extensions   (B) Cookies

    (C) Diagnostic software   (D) Boot diskettes

53. Punched cards were first introduced by

    (A) Powers   (B) Pascal

    (C) Jacquard   (D) Herman Hollerith

54. Programs are executed on the basis of a priority number in a

    (A) Batch processing system   (B) Multiprogramming

    (C) Time sharing   (D) None of these

55. What is the first stage in software development?

    (A) Specification and design   (B) Testing

    (C) System Analysis   (D) Maintenance

56. B7 : B9 indicates

    (A) Cells B7 and cell B9 only.   (B) Cells B7 through B9.

    (C) Cell B8 only.   (D) None of the above.

57. The box on the chart that contains the name of each individual record is called the
    (A) cell   (B) title   (C) axis   (D) legend

58. Which language is used to create macros in Excel?

    (A) Visual Basic   (B) C   (C) Visual C++   (D) Java

59. An Excel Workbook is a collection of ————.

    (A) Workbooks   (B) Worksheets

    (C) Charts   (D) Worksheets and Charts

60. Which Chart can be created in Excel?

    (A) Area   (B) Line

    (C) Pie   (D) All of the above

61. You are writing a database application to run on your DBMS. You do not want your users to be able to view the underlying table structures. At the same time you want to allow certain update operations.

    Referring to the above scenario, what structure will you deploy?

    (A) Cursor table   (B) Table filter

    (C) Dynamic procedure   (D) View

62. You are defining the operational process of your RDBMS. Referring to the scenario above, which one of the following is a valid ongoing "operational process?"

    (A) OS requirement   (B) User analysis

    (C) Performance monitoring   (D) Data dictionary specification

63. You have been asked to construct a query in the company's RDBMS. You have deployed a Right Outer Join operation.

    Referring to the scenario above, what will happen to the final results when there is NO match between the tables?

    (A) The right table will return ALL rows.

    (B) The right table will return NULL.

    (C) Both tables will return NULL.

    (D) The left table will return ALL rows.

64. Which one of the following is NOT a characteristic of metadata?

    (A) Data about data   (B) Describes a data dictionary

    (C) Self-describing   (D) Includes user data

65. You are running a query against a relational database.

    Referring to the scenario above, what clause or command do you use in the query to help avoid a costly table scan?

    (A) GROUP BY clause   (B) INDEX command

    (C) HAVING clause   (D) FROM clause

66. Which was the first electronic spreadsheet?

    (A) Visicale   (B) Lotus 1-2-3   (C) QUATRAPRO   (D) Ms-Excel

67. How many steps are involved in medical transcription?

   (A) 2   (B) 4   (C) 3   (D) Many

68. Which of the following provides security to data?

   (A) Class   (B) Data hiding

   (C) Base class   (D) Derived class

69. Which one of the following is an example of object oriented programming?

   (A) BASIC   (B) C   (C) Pascal   (D) C++

70. How many classifications of operations are there based on operant requirements in C++?

   (A) 13   (B) 4   (C) 3   (D) 14

71. What is the maximum range of unsigned integer data type?

   (A) 255   (B) 65535   (C) 32768   (D) 3.4e + 10

72. Which escape sequence is used to represent New Line?

   (A) \1   (B) \n   (C) \m   (D) \x

73. Which of the following functions initializes the class object?

   (A) Destructor   (B) Pointer

   (C) Constructor   (D) Operator overloading

74. Which of the following terms means a name having two or more distinct meanings?

   (A) Data abstraction   (B) Encapsulation

   (C) Inheritance   (D) Overloading

75. Which algorithm design techniques is used in merge sort algorithm?

   (A) Dynamic programming   (B) Back tracking

   (C) Divide and conquer   (D) Greedy method

76. In moving iron instrument the deflecting torque is proportional to

    (I = current through the coil)

    (A) l (B) l^2 (C) $l^{3/2}$ (D) $l^{1/2}$

77. The electromagnetic flow meter works based on

    (A) Faraday's law   (B) Kirchhoff's law

    (C) Lenz's law   (D) Ampere's law

78. The torque developed in a PMMC meter is

    (A) directly proportional to the flux density in the air gap

    (B) inversely proportional to the flux density in the air gap

    (C) does not change with the flux density with the air gap

    (D) None of the above

79. Mathematical expression of a controller is given below

    $m \; = \; k_p \, (e + \dfrac{1}{T_i} \int\limits_{0}^{t} e \, dt)$. It represents

    (A) PD controller   (B) PI controller

    (C) PID controller   (D) Proportional controller

80. If low pressure of the order of 10^{-6} mm of Hg is to be measured, which of the following instrument you select?

    (A) Compound pressure gauge   (B) Thermocouple vacuum gauge

    (C) Pirani gauge   (D) Ionisation type vacuum gauge

81. A cathode ray oscilloscope cannot be used for the measurement of

    (A) voltage   (B) current

    (C) frequency   (D) power

82. A $3\frac{1}{2}$ digit instrument can have maximum reading of

    (A) 100   (B) 999   (C) 9999   (D) 1999

83. HART is an acronym for

    (A) Heart Acknowledge Ready Transducer

    (B) High Altitude Remote Transducer

    (C) Highway Addressable Remote Transmitter

    (D) Highway Addressable Remote Transducer

84. The controller that produces sluggish, long oscillatory response is

    (A) Proportional controller   (B) Derivative controller

    (C) Integral controller   (D) None of the above

85. In a VTVM the alternating voltage measurement corresponds to

    (A) Sawtooth wave inputs   (B) Square wave inputs

    (C) Sine wave inputs   (D) input of any waveform

86. Which of the following is piezo-electric material?

    (A) Sodium sulphate   (B) Rochelle salt

    (C) Blue salt   (D) Sodium hexa meta phosphate

87. The velocity static error constant for a type-0 system is

    (A) zero   (B) k   (C) infinity   (D) 1

88. The electrical analogous for gear train is

    (A) Amplifier   (B) Transformer

    (C) Filter   (D) Equalizer

89. A bridge used for measuring dielectric loss of capacitor is

    (A) Schering bridge   (B) Maxwell bridge

    (C) Anderson bridge   (D) Hay bridge

90. Semiconductor strain gauge has

    (A) Low fatigue life   (B) Complete linearity

    (C) Poor hysterisis   (D) High gauge factor

91. The ripple factor of a half wave rectifier is

    (A) 0.485   (B) 0.287   (C) 1.51   (D) 1.21

92. Which of the following configuration can be used as a buffer?

(A) CEC

(B) CCC

(C) CBC

(D) None of the above

93. The following relationships between α and β are correct except

(A) $\alpha = \dfrac{\beta}{1+\beta}$

(B) $1-\alpha = \dfrac{1}{1+\beta}$

(C) $\beta = \dfrac{\alpha}{1-\alpha}$

(D) $\alpha = \dfrac{\beta}{1-\beta}$

94. RC low pass filter can also be known as

(A) Differentiator (B) Integrator (C) Schmitt trigger (D) Clipper

95. Which of the following use least power?

(A) TTL (B) ECL (C) CMOS (D) DTL

96. The Governor of RBI is

(A) Mr. D Subbha Rao

(B) Mr. C.B. Bhave

(C) Mr. Rangarajan

(D) Mr. Y.V. Reddy

97. The union budget is presented in the parliament by

(A) Home minister

(B) External affairs minister

(C) Finance Minister

(D) Minister for Parliamentary affairs

98. Which of the following regulated by SEBI?

(A) Public sector Banks

(B) Provident fund

(C) Stock Market

(D) All the above

99. Which one of the following is not a public sector bank?

(A) SBI

(B) IOB

(C) OBC

(D) ICICI

100. Which of the following looks after the pension reformation in India?

(A) RBI

(B) TRAI

(C) FICCI

(D) PFRDA