ENTRANCE EXAMINATION FOR ADMISSION, MAY 2011.
Ph.D. (BANKING TECHNOLOGY)
COURSE CODE : 146

Register Number:  

Signature of the Invigilator  
(with date)

COURSE CODE : 146

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) or (E) 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.
Instructions: This question paper has TWO sections. Part-I contains 100 objective questions in the area computer science and also Part-II contains 100 objective questions in the area of banking finance and general management. Students with PG degrees of M.Tech. (CSC/IT), M.Sc. (CSC/IT) and M.C.A. or equivalent should attempt the Part-I questions. Students with PG degrees in Management, Commerce and Professional courses like CA/ICWAI/CAIIB etc., should attempt only Part-II. Students with M.B.A. (Banking Technology) Degree may attempt either Part-I or Part-II.

Students should specify the choice of section on the TOP of Answer Coding Sheet.

No one is allowed to answer partly from Part I and partly from Part II.

Part – I

(To be attempted by students with M.Tech. (CSC/IT), M.Sc. (CSC/IT) and MCA or equivalent)

1. A term associated with the comparison of processing speeds of different computer systems is
   (A) EFTS  (B) MPG  (C) MIPS  (D) CFPS

2. Which of the following medical activity was made possible by computers?
   (A) X Ray  (B) Brain scan
   (C) Open Heart Surgery  (D) Vaccination

3. Specially trained police officials can analyze the evidences of a case by using devices through computers instead of manually. This technology is known as
   (A) Robotics  (B) Cyber Law
   (C) Computer forensics  (D) Forecasting

4. Which of the following required large computer memory?
   (A) Imaging  (B) Graphics  (C) Voice  (D) All of above

5. Plotter accuracy is measured in terms of repeatability and
   (A) Resolution  (B) Vertical dimensions
   (C) Buffer size  (D) Intelligence

6. What is the latest write-once optical storage media?
   (A) Magneto-optical disk  (B) WORM disk
   (C) CD-ROM disk  (D) Digital paper

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7. Enterprise Java Beans is an example of
   (A) Message Oriented Middleware  (B) Object Oriented Middleware
   (C) Process Oriented Middleware  (D) None of the above

8. Steganalysis is related to
   (A) Hiding Information  (B) Watermarking
   (C) Crypting Information  (D) None of the above

9. An error in software or hardware is called a bug. What is the alternative computer jargon for it?
   (A) Squid  (B) Leech  (C) Glitch  (D) Slug

10. Bio-Authentication is based on
    (A) what you know  (B) what you are
    (C) what you have  (D) none of the above

11. Which of the following circuit is used as a 'Memory device' in computers?
    (A) Rectifier  (B) Comparator
    (C) Flip-Flop  (D) None of the above

12. Which of the following registers is used to keep track of address of the memory location where the next instruction is located?
    (A) Memory address register  (B) Memory data register
    (C) Instruction register  (D) Program counter

13. Which of the following is (are) true about virtual memory systems that use pages?
    I. The virtual address space can be larger than the amount of physical memory.
    II. Programs must be resident in main memory throughout their execution.
    III. Pages correspond to semantic characteristics of the program.
    (A) I only  (B) II only  (C) I & II  (D) I & III

14. What are software interrupts?
    (A) RST 0 – 7  (B) RST 5.5 – 7.5
    (C) INTR, TRAP  (D) None of the above
15. How many address lines are needed to address each machine location in a $2048 \times 4$ memory chip?
   (A) 8  (B) 10  (C) 11  (D) 12

16. By default word documents print in ______ mode.
   (A) Landscape  (B) Portrait  (C) Print View  (D) Page

17. Which of the following packages is used for composition in a printing press?
   (A) Word  (B) Word Pad  (C) Page Maker  (D) Photoshop

18. Outlook Express is a
   (A) E-Mail Client  (B) Browser  (C) Document Viewer  (D) None of the above

19. Which view in Power Point can be used to add notes to the slides?
   (A) Normal  (B) Slide Show  (C) Slide Sorter  (D) None of the above

20. Which of the following is not a spreadsheet application?
   (A) Excel  (B) Lotus 1-2-3  (C) VisiCalc  (D) Lotus Notes

21. Consider the following pseudocode.
   \[
   \begin{align*}
   x & := 1; \\
   i & := 1; \\
   \text{while} \ (x \leq 1000) \\
   \text{begin} \\
   x & := 2^x; \\
   i & := i + 1; \\
   \text{end}; \\
   \end{align*}
   
   What is the value of $i$ at the end of the pseudocode?
   (A) 4  (B) 5  (C) 6  (D) 7
22. Consider the following function.
   double p(double b, unsigned int e)
   {
      if (e == 0)
         return 1.0;
      else
         if (even(e))
            return p(b*b, e/2);
         else
            return p(b*b, e/2)*b;
   }

   How many multiplications are executed as a result of the call p(5.0, 12)?
   (A) 6       (B) 8       (C) 9       (D) 12

23. Which of the following statements about a remote procedure call is true?
   (A) It can not return a value
   (B) It can not pass parameters by reference
   (C) It can not call procedures implemented in different languages
   (D) None of the above

24. procedure zzz
    a : integer;
    b : integer;
    procedure aaa(x,y)
    begin
       y = y + b;
       x = b + x;
       b = x + b;
       a = y;
    end aaa;
    begin
       a = 2; b = 7;
       aaa(a,b);
       write(a); write(b);
    end zzz;

    Find the output of procedure zzz if call-by-value parameter-passing method is used.
    (A) 2, 7       (B) 9, 14
    (C) 14, 16     (D) None of the above
25. Consider the program given in the question 24 and find the output of procedure zzz if call-by-reference parameter-passing method is used.
   (A) 2, 7  (B) 2, 9  
   (C) 9, 14  (D) None of the above

26. Which of the following is a true statement?
   (A) Data characteristics are dynamic
   (B) A data model explains the transient form of an organization
   (C) Data flow paths are permanent
   (D) None of the above

27. The primary deliverable from the conceptual data modeling step within the analysis phase is
   (A) a state-transition diagram  (B) an entity-relationship diagram
   (C) a decision table  (D) structured English

28. Gathering the information you need for data modeling by reviewing specific business documents handled within the system describes the
   (A) top-down approach  (B) bottom-up approach
   (C) investigative approach  (D) None of the above

29. On an entity-relationship diagram, a diamond represents a (n)
   (A) data flow  (B) entity
   (C) multivalued attribute  (D) relationship

30. In a Financial information system the following type of information is operational
   (A) Opening a new account
   (B) Introducing a new financial product
   (C) Analysing a delivery channel
   (D) Introducing a new delivery channel such as Mobile Commerce

31. An audit trail
   (A) is used to make back-up copies
   (B) is the recorded history of operations performed on a file
   (C) can be used to restore lost information
   (D) all of the above
   (E) none of the above

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32. Which of the following file organization is most efficient for a file with a high degree of file activity?
   (A) Sequential  (B) VSAM
   (C) ISAM  (D) B-Tree Organization

33. A transaction schedule is serializable if its effect is equivalent to that of some serial schedule. Consider a bookkeeping operation consisting of two transactions $T_1$ and $T_2$ that are required to keep the sum $A + B + C$ unchanged. Which of the following pairs of transactions will always result in a serializable schedule?

   I. $T_1$          $T_2$
   Lock A;          Lock B;
   $A = A - 10;$    $B = B - 20;$
   Unlock A;        Unlock B;
   $B = B + 10;$    $C = C + 20;$

   II. $T_1$          $T_2$
   $A = A - 10;$    Lock B;
   Lock B;          $B = B - 20;$
   $B = B + 10;$    Unlock B;
   Unlock B;        $C = C + 20;$

   III. $T_1$          $T_2$
   Lock A;          Lock A;
   $A = A - 10;$    $B = B - 20;$
   Unlock A;        Unlock A;
   $B = B + 10;$    $C = C + 20;$
   (A) I only        (B) II only        (C) III only        (D) I and II

34. A data dictionary doesn’t provide information about
   (A) where data is located
   (B) how the data is used.
   (C) who owns or is responsible for the data
   (D) the size of the disk storage device
35. The arranging of data in a logical sequence is called
   (A) Sorting  (B) Classifying
   (C) Reproducing  (D) Summarizing

36. In the Internet Protocol (IP) suite of protocols, which of the following best describes the purpose of the Address Resolution Protocol?
   (A) To translate Web addresses to host names
   (B) To determine the IP address of a given host name
   (C) To determine the hardware address of a given host name
   (D) To determine the hardware address of a given IP address

37. Which of the following statements about Ethernets is typically FALSE?
   (A) Ethernets use circuit switching to send messages.
   (B) Ethernets use buses with multiple masters.
   (C) Ethernet protocols use a collision-detection method to ensure that messages are transmitted properly.
   (D) Networks connected by Ethernets are limited in length to a few hundred meters.

38. Which of the following statements about datagrams sent by a node in a network using IPv4 protocol is (are) true?
   I. Datagrams at the source must be the size of the smallest maximum transmission unit (MTU) of all the links on a path to the destination.
   II. Datagrams may be fragmented during routing.
   III. Datagrams are reassembled only at the destination.
   (A) I only  (B) II only
   (C) II and III only  (D) I, II and III only

39. ICMP (Internet Control Message Protocol) is
   (A) A TCP/IP protocol used to dynamically bind a high level IP address to a low-level physical hardware address.
   (B) A TCP/IP high level protocol for transferring files from one machine to another.
   (C) A protocol used to monitor computers
   (D) A protocol that handles error and control messages
40. ———— is used to sniff confidential data from users.
   (A) Spamming
   (B) Phishing
   (C) Hacking
   (D) All of the above

41. Data scrubbing is which of the following?
   (A) A process to reject data from the data warehouse and to create the necessary indexes
   (B) A process to load the data in the data warehouse and to create the necessary indexes
   (C) A process to upgrade the quality of data after it is moved into a data warehouse
   (D) A process to upgrade the quality of data before it is moved into a data warehouse

42. A data warehouse is which of the following?
   (A) Can be updated by end users
   (B) Contains numerous naming conventions and formats
   (C) Organized around important subject areas
   (D) Contains only current data

43. An independent data mart
   (A) is designed from the analysis of an independent consultant.
   (B) is filled with data from the operational environment, without a data warehouse.
   (C) is outsourced for its design and implementation.
   (D) has no overlapping data with the decision support data warehouse.

44. A snowflake schema is which of the following types of tables?
   (A) Fact
   (B) Dimension.
   (C) Helper.
   (D) All of the above

45. Fact tables are which of the following?
   (A) Completely demoralized
   (B) Partially demoralized
   (C) Completely normalized
   (D) Partially normalized

46. Which does not come under software engineering?
   (A) Software Metrics
   (B) Software Architecture
   (C) Software Testing
   (D) None of the above
47. Which does not come under feasibility analysis?
   (A) Environmental Feasibility           (B) Economic Feasibility
   (C) Technical Feasibility              (D) None of the above

48. A spiral model is divided into a number of framework activities also called _______ regions.
   (A) task       (B) work       (C) model       (D) frame

49. Suppose that a certain software product has a mean time between failures of 10,000 hours and has a mean time to repair of 20 hours. If the product is used by 100 customers, what is its availability?
   (A) 80%       (B) 98%       (C) 99.8%       (D) 100%

50. The Singleton design pattern is used to guarantee that only a single instance of a class may be instantiated. Which of the following is (are) true of this design pattern?
   I. The Singleton class has a static factory method to provide its instance.
   II. The Singleton class can be a subclass of another class.
   III. The Singleton class has a private constructor.
   (A) I only     (B) II only
   (C) III only   (D) All of the above

51. The _________ attack is related to authentication.
   (A) Interception        (B) Interruption
   (C) Fabrication         (D) None of the above

52. An analogy for digital signatures is
   (A) A locked mail box  (B) The sealing of an envelope
   (C) The private sealing of an envelope (D) All of the above

53. The _________ standard defines the structure of a digital certificate.
   (A) X.509             (B) ASN.1
   (C) X.500             (D) None of the above

54. Which of the following comes closest to being a perfectly secure encryption scheme?
   (A) The Caesar cipher, a substitution cipher
   (B) DES (Data Encryption Standard), a symmetric-key algorithm
   (C) One-time pad
   (D) RSA, a public-key algorithm

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55. In __________ we have the concept of key rings.
   (A) PEM  (B) PGP
   (C) MIME (D) None of the above

56. Abbreviate CCB
   (A) Climate Control Board  (B) Configuration Control Board
   (C) Change check-in Control Board (D) None of the above

57. The Big League Model proposes
   (A) idea to product transformation (B) product to process transformation
   (C) project to process transformation (D) all of the above.

58. The budgeting technique in which the utility of each and every project is questioned before releasing funds every year is called
   (A) Order-of-magnitude budgeting
   (B) Bottom-up-budgeting
   (C) Planning-Programming-Budgetting system
   (D) Zero based budgeting

59. Which of the following is/are internal reasons for project failure?
   (A) Non-availability of equipment in time due to its use by other departments of the organization
   (B) Failure to raise required funds on time due to the high level of interest rate.
   (C) A steep rise in inflation and the exchange rates.
   (D) Both (A) and (B) above

60. If the optimistic time estimate of an activity is 6 weeks and the pessimistic time estimate is 30 weeks, the standard deviation of the expected time required for the activity is
   (A) 6 weeks   (B) 5 weeks   (C) 4 weeks   (D) 3 weeks

61. Pick the odd one
   (A) Cash Tree   (B) Hole-on-the-wall
   (C) Money machine (D) Automated Teller Machine

62. Which is not a operation carried out using telephone banking?
   (A) Cheque book orders   (B) Order demand draft
   (C) Change of address   (D) None of the above
63. Core banking is also called as
   (A) Mobile Banking          (B) Local Banking
   (C) Anywhere Banking        (D) E-Banking

64. Acronym for SWIFT is
   (A) Society for Worldwide Intercontinental bank Financial Telecommunication
   (B) Society for Worldwide Interbank Financial Telecommunication
   (C) Society for Worldwide Intercontinental Financial Transaction
   (D) Society for Worldwide Interbank Financial Transaction

65. Which of the following is not a financial middleware?
   (A) FEDWIRE       (B) SFMS     (C) RTGS     (D) IFX

66. Electronic business includes the which of the following?
   (A) Buying and Selling          (B) Servicing Customers
   (C) Collaborating with business partners (D) All of the above

67. In this type of e-commerce the sellers are the organizations and the buyers are
    individuals
   (A) Consumer-to-consumer          (B) Consumer-to-business
   (C) Business-to-consumer           (D) None of the above

68. Which is not an e-commerce application?
   (A) Evaluation of employees        (B) Home Banking
   (C) Conducting an auction           (D) Buying stocks

69. E-commerce increases competition by
   (A) By creating attractive websites (B) Empowering owners
   (C) Marketing the traditional products (D) None of the above

70. Why did the e-commerce boom go bust in 2000?
   (A) Websites started by techies who lack business knowledge
   (B) Lack of good business model
   (C) Investors' and entrepreneurs' greed and ignorance
   (D) All of the above
71. The planning process that integrates production, purchasing and inventory management of interdependent items is called as
   (A) Production Planning          (B) Inventory Planning
   (C) Manufacturing Resource Planning  (D) None of the above

72. ———— CRM application include call centers, help desks, sales force automation and field service automation.
   (A) Customer facing               (B) Customer touching
   (C) Customer-centric intelligence  (D) None of the above

73. Which is not ERP?
   (A) Oracle Financials            (B) Oracle Dataware House
   (C) Peoplesoft                    (D) Marshal

74. Which is not the benefit of ERP systems?
   (A) On-line/real-time information made available throughout all the functional areas of an organization
   (B) Improved data standardization and accuracy across the enterprise
   (C) "Best practices" included in the applications
   (D) The efficiency gained in the individual departments

75. SAP comprises of ———— modules.
   (A) 6       (B) 7       (C) 8       (D) 9

76. The object-oriented paradigm includes which of the following properties?
   I. Encapsulation
   II. Inheritance
   III. Recursion
   (A) I and II only          (B) II and III only
   (C) I and III only         (D) All of the above

77. In order to model the relationship "a hotel room has balcony", between Hotel room and balcony, you could use
   (A) Aggregation          (B) Association          (C) Composition          (D) Realization
78. Which of the following statements are not true?
(A) Association is a "kind-of" relationship
(B) Generalization allows abstracting common features and defining them in a sub-class
(C) A super-class is a class that must not have associations
(D) All of the above

79. Which of these diagrams show the snap shot of a class at run time?
(A) Class diagram
(B) Object diagram
(C) Component diagram
(D) All of the above

80. Which is not associated with design phase of software development?
(A) Package diagram
(B) Deployment diagram
(C) Sequence diagram
(D) Activity diagram

81. Which is a Cyber crime?
(A) Credit card theft
(B) Spam mail
(C) Identity theft
(D) All of the above

82. Which of the following is / are true about cyber law?
(A) Digital signatures have been given legal validity
(B) E-mail is a valid and legal form of communication
(C) Allows corporate companies to act as certifying authorities
(D) All of the above

83. WIPO is
(A) Worldwide Internet Protection Organization
(B) World Intellectual Property Organization
(C) Web Information Protection Organization
(D) None of the above

84. Which of the following is not required for the Cyber law in a country to be effective?
(A) A sound cyber law regime
(B) A sound enforcement machinery
(C) A sound administrative system
(D) All of the above
85. Which of the following is a part of IPR?
   (A) Ownership                  (B) Watermark
   (C) Trademark                  (D) All of the above

86. Which of the following statements is true concerning the open database connectivity standard (ODBC)?
   (A) Each vendor desiring to be ODBC-compliant provides an ODBC driver
   (B) No criteria to be met in order to establish an ODBC connection
   (C) Provides a programming interface that provides a specific language for application programs to access and process SQL databases independent of the RDBMS accessed
   (D) None of the above

87. The three different application logic components are which of the following?
   (A) Presentation, Client, and Storage
   (B) Presentation, Client, and Processing
   (C) Presentation, Processing, and Storage
   (D) Presentation, Processing, and Network

88. Which is not a client server model?
   (A) Remote Presentation        (B) Distributed Logic
   (C) Distributed Data           (D) None of the above

89. Which of the following statements is true about symmetric multiprocessing?
   (A) A single copy of the operating system resides in each processor
   (B) Bottlenecks increase with uniprocessor systems because tasks are not shared
   (C) Useful for situations where data must remain in memory to process
   (D) The problems of memory contention are unlikely

90. JDBC is
   (A) Java Data Base Communication (B) Java Data Base Connectivity
   (C) Joint Data Base Communication (D) Joint Data Base Connectivity

91. Dequeue is a ————.
   (A) Double Ended Queue         (B) Double Edged Queue
   (C) Double Entry Queue         (D) None of the above
92. The complexity of linear search algorithm is
   (A) \( O(n) \)  (B) \( O(\log n) \)  (C) \( O(n^2) \)  (D) \( O(n \log n) \)

93. The complexity of bubble sort algorithm is
   (A) \( O(n) \)  (B) \( O(\log n) \)  (C) \( O(n \log n) \)  (D) \( O(n^2) \)

94. Which of the following data structure is a nonlinear data structure?
   (A) Tree  (B) Linked lists  
   (C) Graph  (D) All of the above

95. Visiting all the elements in a data structure is
   (A) Sort  (B) Search  
   (C) Traversal  (D) None of the above

96. Which is not a data mining technique?
   (A) Divide-and-conquer  (B) Support Vector Machine  
   (C) Finite Automata  (D) Logical reasoning

97. This data mining technique derives rules from real-world case examples.
   (A) Rule discover  (B) Signal processing  
   (C) Neural nets  (D) Case-based reasoning

98. ________ is a partitioning-based clustering.
   (A) K-means  (B) Expectation maximization  
   (C) Both (A) and (B)  (D) None of the above

99. Market basket analysis does not try to answer the following questions
   (A) What is sales tax of an item?  
   (B) Who makes purchases?  
   (C) What do customers buy together?  
   (D) In what order do customers purchase items?

100. Market basket analysis is used in the following applications
     (A) Indirect marketing  (B) Inventory Planning  
     (C) Sales planning  (D) None of the above
Part – II

(To be attempted by students with MBA, M.Com, CA, ICWAI, CAII or Equivalent)

1. Who would be considered external users of financial statements?
   (A) Security Analysts       (B) The Chief Executive Officer
   (C) The Chief Financial Officer       (D) The Board of Directors

2. Which of the following organisations is charged with administering the Companies Act?
   (A) The Securities and Exchange Board of India
   (B) The Reserve Bank of India
   (C) The Department of Company Affairs
   (D) The Institute of Chartered Accountants of India

3. Which of the following financial statements shows the financial position of a company at a specific date?
   (A) Profit and Loss Account       (B) Balance Sheet
   (C) Statement of Cash Flows       (D) Auditor's Report

4. Which of the following statements is not an appropriate description of the double-entry system?
   (A) Every debit has a credit
   (B) Every transaction is entered twice, first in the journal and then in the ledger
   (C) The total of all debits equals the total of all credits
   (D) Each transaction is recorded in a minimum of two accounts.

5. Tara Company provides web design services. Depending on their agreements, clients pay before, after or as soon as service is provided. The following amounts appear on the company's March 31 balance sheet

<table>
<thead>
<tr>
<th></th>
<th>20X2</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fees Receivable</td>
<td>Rs 16,000</td>
<td>Rs 22,000</td>
</tr>
<tr>
<td>Unearned Fees</td>
<td>7,000</td>
<td>3,000</td>
</tr>
</tbody>
</table>

During the year ended March 31, 20X3, the company received revenues of Rs. 77,000. For this period the company should report a revenue of

(A) Rs. 67,000   (B) Rs. 87,000   (C) Rs. 79,000   (D) Rs. 75,000
6. Varun Company’s work sheet indicated a net loss for the recent quarter. Where would the amount of loss appear in the profit and loss account and the balance sheet columns of the work sheet?

<table>
<thead>
<tr>
<th>Profit and Loss Account</th>
<th>Balance Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Debit</td>
<td>Debit</td>
</tr>
<tr>
<td>b. Debit</td>
<td>Credit</td>
</tr>
<tr>
<td>c. Credit</td>
<td>Credit</td>
</tr>
<tr>
<td>d. Credit</td>
<td>Debit</td>
</tr>
</tbody>
</table>

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

7. The payment terms “n/10/eom” mean

(A) The buyer will get a discount of 10 per cent if the invoice is paid before the end of the month in which the invoice is raised.

(B) The buyer will get a discount of 10 per cent if the invoice is paid before the end of the month after the month in which the invoice is raised.

(C) The invoice is due 10 days after the end of the month in which the invoice is raised

(D) The invoice is due 10 days after the end of the month after the month in which the invoice is raised.

8. Operating profit equals

(A) Operating profit – Income tax

(B) Gross profit – Operating expenses

(C) Sales – Cost of goods sold

(D) Gross profit – Selling expenses

9. Under what conditions will the FIFO ending inventory value equal the LIFO ending inventory value, when a firm follows the perpetual inventory system?

(A) Rising prices

(B) Falling prices

(C) Both rising prices and falling prices

(D) Constant prices

10. Ranjan Company purchased a surface grinding machine costing Rs. 3,50,000 for use in its manufacturing operations. It paid transit insurance and shipping costs of Rs. 12,000 and testing and preparation charges of Rs. 8,000. What is the cost of acquisition of the machine?

(A) Rs. 3,50,000  (B) Rs. 3,62,000  (C) Rs. 3,70,000  (D) Rs. 3,58,000
11. On June 30, 20X5, Hashim Company exchanged an old machine having an acquisition cost of Rs. 23,000 and an accumulated depreciation of Rs 4,500 for a new machine costing Rs. 23,000 by paying Rs. 6,500. What is the loss on this exchange?
(A) Rs. 0  (B) Rs. 6,500  (C) Rs. 2,000  (D) Rs. 4,500

12. Current assets – Current liabilities =
(A) Working Capital  (B) Gross working Capital
(C) Net working Capital  (D) Average working Capital

13. Which of the following statements relating to costs incurred on computer software for internal use is/are correct?
I. Expenditure incurred in the preliminary project stage should be expensed when it is incurred.
II. Expenditure on detailed program design, coding and testing should be capitalised under certain conditions.
(A) I only  (B) II only
(C) Both I and II  (D) Neither I nor II.

14. Nidhi Company reported in its balance sheet on March 31, 20X2 that its share capital consisted of 10,000 shares of Rs. 10 each, all fully paid and issued at a premium of Rs. 20 each. On September 18, 20X2, the company bought back 300 shares at a price of Rs. 25 per share. What is the effect of the buy-back on the company?
(A) The company's share capital is increased
(B) The company's share premium is increased
(C) The company's share premium is decreased
(D) The company's net profit for the year ended March 31, 20X3 is decreased

15. On April 17, 20X6, Virat Company declared a dividend of 10 per cent to shareholders on record on May 15, 20X6. On the date of record, Virat's issued share capital consisted of 10,000 equity shares of Rs 10 issued at a premium of Rs 15, all fully paid up. The company held 200 shares as treasury stock. How much dividend should Virat pay?
(A) Rs. 10,000  (B) Rs. 25,000  (C) Rs. 9,800  (D) Rs. 24,500
16. How do a stock split and a bonus issue affect the amount of share capital of a company?

<table>
<thead>
<tr>
<th>Stock split</th>
<th>Bonus issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Increase</td>
<td>Increase</td>
</tr>
<tr>
<td>b. Increase</td>
<td>No effect</td>
</tr>
<tr>
<td>c. No effect</td>
<td>Increase</td>
</tr>
<tr>
<td>d. No effect</td>
<td>No effect</td>
</tr>
</tbody>
</table>

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

17. Which of the following ratios is useful in assessing a company's ability to meet short-term obligations?

(A) Debt to equity ratio   (B) Quick ratio
(C) Price-earnings ratio (D) Asset turnover

18. Which of the following is an example of extraordinary item?

(A) Reversal of provision for restructuring
(B) A large loss on disposal of fixed assets
(C) Major error in a depreciation calculations in the last accounting period
(D) Loss of plant in an earthquake

19. The primary purpose of the statement of cash flows is to provide relevant information about:

(A) The reasons for differences between net profit and associated cash receipts and payments
(B) The enterprise's ability to meet its obligations, its ability to pay dividends, and its needs for external financing.
(C) The enterprise's ability to generate positive future net cash flows.
(D) The cash receipts and cash payments of an enterprise during a period

20. During 20X6, Jishnu Company acquired Divya Company by issue of equity of shares. How should this transaction be reported in Jishnu's statement of cash flows?

(A) As an outflow from investing activities
(B) As an inflow from investing activities
(C) As an inflow from financing activities
(D) Not reported
21. Which of the following statements concerning the price-earnings ratio is/are correct?

I. A high price-earnings ratio indicates good growth prospects.
II. A high price-earnings ratio indicates a low earnings-yield.
(A) I only (B) II only
(C) Both I and II (D) Neither I nor II

22. All of the following items are cash with the exception of

(A) Cheques (B) Deposits in current accounts
(C) Time deposits (D) Post-dated cheques

23. When a buyer returns goods, the seller sends the buyer a document called a/an

(A) Invoice (B) Debit note
(C) Credit note (D) Correcting entries

24. The term FOB shipping point means

(A) The buyer incurs all transportation costs after the merchandise has been loaded on a train or truck.
(B) The buyer takes insurance on the merchandise
(C) The seller takes insurance on the merchandise
(D) The seller continues to be the legal owner of the merchandise until its delivery to the buyer

25. Which of the following account balances would not be carried forward to the next accounting period?

(A) Equipment
(B) Dividends
(C) Accumulated Depreciation, Equipment
(D) Professional Fees Receivable

26. Which of the following is not a function of a finance manager?

(A) Mobilization of Funds
(B) Deployment of Funds
(C) Control over use of funds
(D) Manipulate share price of the company
27. The minimum number of persons required to form a private limited company and a public limited company respectively are
   (A) 2 and 5       (B) 5 and 7       (C) 2 and 7       (D) 7 and 2

28. What is GAAP?
   (A) Generally Accepted Accounting Principles
   (B) Generally Advised Accounting Procedures
   (C) Gradually Accepted Accounting Policies
   (D) All of the above

29. Which one of the following is the last function of management?
   (A) Planning     (B) Organizing    (C) Staffing    (D) Controlling

30. Which of the following institutions was started to protect the interest of investors?
   (A) OTCEI     (B) CCI        (C) SEBI       (D) IDBI

31. In which year 14 banks were nationalized?
   (A) 1969     (B) 1979     (C) 1989     (D) 1999

32. A plan when expressed in quantitative terms is known as
   (A) Policies   (B) Procedures (C) Objectives   (D) Budget

33. What is the new name of GATT?
   (A) WPI     (B) WPR       (C) WTO       (D) PEO

34. Which of the following market is associated with long term funds?
   (A) Money Market   (B) Capital Market
   (C) Stock Market   (D) Chamber Commerce

35. NASSCOM stands for
   (A) National Association of Software and Services Companies
   (B) National Account Statistics and Services Companies
   (C) National Association of Shipping and Services Companies
   (D) National Agreement on Scientific Research and Service Companies

36. Which of the following types of tests is designed primarily to help predict how successful a person is likely to be in learning new skills?
   (A) Achievement   (B) Aptitude   (C) Personality   (D) All these

37. A researcher is conducting a survey in a large selling area by contacting a small group of people that is representative of all people in that area. The small, representative group is known as the
   (A) Population   (B) Sample   (C) Stratification   (D) None of these
38. The scanning devices used to read bar codes on product tags at checkout counters are examples of which of the following?
   (A) OCR (B) CPU (C) VDT (D) None of these

39. Which of the following types of software applications is primarily used to perform calculations on numbers in columns and rows?
   (A) Database (B) Spreadsheet (C) Word processing (D) None of these

40. The objectives of financial management is to
   (A) Generate the maximum net profit
   (B) Generate the maximum retained earnings
   (C) Generate the maximum wealth for its shareholders
   (D) Generate the maximum funds for the firm at the least cost

41. The minimum maturity period for a Certificate of Deposit is
   (A) Fifteen days (B) One month (C) Three months (D) Six months

42. Public debt in the Indian economy is being managed by
   (A) SBI on behalf of Government of India (B) Ministry of Finance
   (C) RBI (D) Ministry of Commerce

43. Unit banking refers to the system
   (A) With a single bank having units at different places
   (B) With the overall operations of a bank conducted from a financial system
   (C) Which deals with the units of UTI
   (D) Which deals with the units in small scale sector

44. 'Gilt edged' securities are the bonds issued by
   (A) Big Corporates (B) Multinational Corporates
   (C) Central Government (D) Financial Institutions

45. Which of the following is the money market instrument?
   (A) Treasury bills (B) Certificate of Deposits
   (C) Debentures (D) Call money

46. Which of the following enables a company to increase its paid up share capital without receiving any payment from the receipts of the shares?
   (A) Public Issue (B) Bonus Issue
   (C) Private Placement (D) Right Issue

47. Which of the following is an asset of a bank?
   (A) Balances with other banks (B) Savings Deposits
   (C) Demand Deposits (D) Time Deposits
48. CRISIL
(A) Rates equity, debentures and fixed deposits
(B) Was set up by Industrial Development Bank of India
(C) Gives the highest rating of 'P 1' to short term instruments
(D) Does not consider non-financial factors while valuing a company's securities

49. Private Banks
(A) Should not be registered as public limited companies
(B) Need not adhere to capital adequacy norms determined by RBI
(C) Are covered by the Banking Regulations Act 1949
(D) Should not be listed on any stock exchanges

50. Which of the members would not find in the secondary market?
(A) Investors  
(B) Stock Exchanges
(C) Stock brokers  
(D) Underwriters

51. Which method is likely to be used to survey opinions of airline passengers about the cleanliness of the restrooms in a new airport?
(A) Simple Random Sample  
(B) Systematic Random Sample
(C) Cluster Sample  
(D) Convenience Sample

52. Histograms do not reveal the
(A) Exact Data Range  
(B) Model Class
(C) Degree of Skewness  
(D) Relative Frequencies

53. Which data would be suitable for a pie chart?
(A) Whirlpool Corporation's sales revenue for the last five years
(B) Percent of Oxnard University graduates who are employed or unemployed
(C) Average SAT scores for entering freshmen at 10 major U.S. unive
(D) Any of the above would be suitable for a pie chart

54. On average, a major earthquake (Richter scale 6.0 or above) occurs 3 times a decade in a certain California county. Find the probability that at least one major earthquake will occur within the next decade.
(A) .981  
(B) .050  
(C) .199  
(D) .950

55. For a one-tailed test of hypothesis for a single population mean with 13 degrees of freedom, the value of the test statistic was 1.863. The p-value is
(A) between .05 and .025  
(B) between .10 and .05
(C) greater than .10  
(D) less than .001
56. The bivariate regression shown below would most likely result in which outcome(s)?
   (A) Autocorrelation    (B) High $R^2$
   (C) Negative slope    (D) (A) and (C) only

57. In a multiple regression all of the following are true regarding residuals except
   (A) They may be used to detect a curvilinear relationship between two variables
   (B) They are the difference between the observed and calculated values of the
       dependent variable
   (C) The sum of the residuals will equal zero
   (D) They may be used to detect heterogeneity

58. What measure of central tendency is most sensitive to skewness?
   (A) Mode
   (B) Median
   (C) Mean
   (D) Median and Mean

59. A measure of the degree of asymmetry of a frequency distribution is called?
   (A) kurtosis
   (B) skewness
   (C) coefficient of variation
   (D) standard deviation

60. Given a p-value of 0.065, and using the customary $\alpha = 5\%$, the conclusion should be
   (A) do not reject the null hypothesis
   (B) reject the null hypothesis
   (C) not enough information to determine
   (D) none

61. To test whether or not two population variances are equal, the appropriate
distribution is
   (A) z distribution
   (B) chi-square distribution
   (C) $F$ distribution
   (D) $t$ distribution with $n_1 + n_2 - 2$ degrees of freedom

62. Analysis of Variance (ANOVA) is a test for equality of
   (A) variances
   (B) means
   (C) proportions
   (D) only two parameters

63. If you have 20 pairs of subjects what would be the degrees of freedom for a test of
correlation between the groups of scores?
   (A) 22
   (B) 21
   (C) 20
   (D) 18
64. Suppose that in a multiple regression the F is significant, but none of the t-ratios are significant. This means that
   (A) multicollinearity may be present
   (B) autocorrelation may be present
   (C) the regression is good
   (D) a nonlinear model would be a better fit

65. Correlation of the values of variables with values of the same variables lagged one or more time periods back is called
   (A) multicollinearity (B) a transformation
   (C) autocorrelation (D) variance inflation

66. Calculate a three-day moving average for the price of stock, for Tuesday through Thursday.

<table>
<thead>
<tr>
<th>Day</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>50.00</td>
</tr>
<tr>
<td>Tuesday</td>
<td>52.00</td>
</tr>
<tr>
<td>Wednesday</td>
<td>54.00</td>
</tr>
<tr>
<td>Thursday</td>
<td>54.50</td>
</tr>
<tr>
<td>Friday</td>
<td>60.00</td>
</tr>
</tbody>
</table>

   (A) 53.50   (B) 54.10   (C) 90.17   (D) 54

67. The Consumer Price Index is an example of which type of index?
   (A) simple   (B) composite   (C) multiple   (D) regression

68. In a chi-square contingency table test for independence, there are six rows and five columns. The computed chi-square value is 46. The p-value is
   (A) less than 0.005      (B) between 0.005 and 0.01
   (C) between 0.01 and 0.05 (D) between 0.05 and 0.10

69. The non-parametric test that is analogous to the One-Way ANOVA is the
   (A) Kruskal-Wallis test (B) Friedman test
   (C) Wilcoxon Signed-Rank test (D) None of the above

70. A university has 5,000 students, belonging to the following classes: 1,500 are freshmen, 1,200 are sophomores, 1,400 are juniors, and 900 are seniors. The university administration wants to get an estimate of all the students' views on a proposal to help alleviate the parking problem on campus. Suppose that a sample of 100 students is chosen. What is the required sample size for the freshman stratum under proportional allocation?
   (A) 3          (B) 33.3          (C) 30          (D) 50
71. VARIMAX rotation is used in
   (A) MANOVA               (B) Discriminant Analysis
   (C) Factor Analysis      (D) All of the above

72. An information system can be defined as
   (A) An organized combination of people, hardware, software, communications
       networks, and database resources.
   (B) As a system that collects, transforms, and disseminates information in an
       organization
   (C) Is composed of hardware, software, networks, and data resources.
   (D) All of the above would apply to the definition of an information system.

73. Which one of the following would NOT be considered a good example of information?
   (A) The company's forklift operator's social security number is 456-38-1
   (B) The retail price of blue widgets is '14
   (C) The company owes '3,847 to vendor number 10
   (D) The numbers 12367892, 436897458, and 837621

74. Which one of the following would be considered data?
   (A) The cost of manufacturing a red widgit is '1.41
   (B) The company is owed '9,041 from customer 12
   (C) The number of total widgits sold last month was 12,098
   (D) The numbers 12367892, 436897458, and 837621

75. An information system that supports the business functions of accounting, finance,
    human resource management, marketing, or operations would be classified as
    (A) Functional business system            (B) Executive information system
    (C) Management information system.       (D) Decision support system.

76. DSS means
    (A) Division service system
    (C) Decision sub-system
    (B) Decision Support system
    (D) Department support system

77. ERP system mean
    (A) Enterprise Research Planning
    (C) Enterprise Revenue Programme
    (B) Enterprise Resource Planning
    (D) Enterprise Revenue Planning
78. The goal of ———- is to develop computers that can think, as well as see, hear, walk, talk, and feel.
(A) Artificial Intelligence system  (B) Expert System
(C) Knowledge Management system (D) Functional system

79. ———- is a security measure that measure the physical traits that makes each individual unique
(A) Security Code  (B) Security Monitor
(C) Biometric Security (D) Back up files

80. What is mean by peripherals?
(A) Generic name for all input devices 
(B) Common name for all output devices
(C) Common name for all the secondary storage devices
(D) All of the above

81. “Using special purpose software to analyze data from a data warehouse to find hidden patterns needed to support a basic business or other process” — called
(A) Data Base Management system  (B) Data Mining
(C) Data Model  (D) Data Dictionary

82. EFT stands for
(A) Exchange fund transfer  (B) Electronic funds transfer
(C) Emergency fund transfer (D) Electronic file Transfer

83. EMS stands for
(A) Electronic meeting system  (B) Electronic message system
(C) Exchange Management system (D) Electronic money system

84. SWIFT stands for
(A) Society for Worldwide Interbank Financial Telecommunication
(B) Society for Worldwide Interbank Fund Transfer
(C) Social Network for Interbank Fund Transfer
(D) Society Network for International Fund Transfer
85. **INFINET** means
   (A) International Financial Network   (B) Indian Financial Network
   (C) International Fund network       (D) Indian Fund Network

86. **OOP** means
   (A) Object Oriented Project           (B) Object Oriented Performance
   (C) Object Oriented Programme         (D) Object oriented Person

87. **MSP** means
   (A) Message Security Protocol         (B) Meeting Security Protocol
   (C) Message Security Programme        (D) Message System Protocol

88. "An integrated collection of data extracted from operational, historical, and external databases, and cleaned transformed, and cataloged for retrieval and analysis, to provide business intelligence for business decision making" is called
   (A) Data Mining                      (B) Data base
   (C) Data warehouse                   (D) Data Management

89. **CDMA & GSM** stands for
   (A) Code division multiple access & Global system for Mobile Communication
   (B) Code division mobile access & Global system for Mobile Communication
   (C) Code division multiple access & Global system for Multiple Communication
   (D) Code Data multiple access & Global system for Modern Communication

90. **MICR** stands for
   (A) Magnetic Ink Character Recognition
   (B) Magnetic Ink Code Recognition
   (C) Micro Ink Character Recognition
   (D) Micro Ink Code Recognition

91. A sum of Rs. 312 was divided among 100 boys and girls in such a way that each boy gets Rs. 3.60 and each girl Rs. 2.40.
   The number of girls is
   (A) 35   (B) 40   (C) 60   (D) 65

92. The average weight of A, B and C is 45 kg. If the average weight of A and B be 40 kg and that of B and C be 43 kg, then the weight of B is
   (A) 17 kg   (B) 20 kg   (C) 40 kg   (D) 31 kg
93. A man is 24 years older than his son. In two years, his age will be twice the age of his son. The present age of the son is
(A) 14  (B) 18  (C) 20  (D) 22

94. Simran started a software business by investing Rs. 50,000. After 6 months, Nandha joined her with the capital of Rs. 80,000. After 3 years, they earned a profit of Rs. 24,500. What was Simran’s share in the profit?
(A) 9,423  (B) 10,500  (C) 12,500  (D) 14,000

95. If 7 spiders make 7 webs in 7 days, then 1 spider will make 1 web in how many days?
(A) 1  (B) 7/2  (C) 7  (D) 49

96. A alone can do a piece of work in 6 days and B alone in 8 days. A & B undertook to do it for Rs. 3,200. With the help of C, they completed the work in 3 days. How much is to be paid to C?
(A) 375  (B) 400  (C) 600  (D) 800

97. Find out the wrong number in series: 19, 26, 33, 46, 59, 74, 91
(A) 26  (B) 33  (C) 46  (D) 59  (E) 74

98. It costs Rs. 1 to photocopy a sheet of paper. However, 2% discount is allowed on all photocopies done after first thousand sheets. How much will it cost to copy 5000 sheets of paper?
(A) Rs. 3,920  (B) Rs. 3,980  (C) Rs. 4,900  (D) Rs. 4,920

99. Rohit spends 40% of his salary on food, 20% on house rent, 10% on entertainment and 10% on conveyance. If his savings at the end of the month are Rs. 1,500, Then his monthly salary is
(A) Rs. 6,000  (B) Rs. 7,500  (C) Rs. 8,000  (D) Rs. 10,000

100. On selling 17 balls at Rs. 720, there is a loss equal to the cost price of 5 balls. The cost price of a ball is
(A) Rs. 45  (B) Rs. 50  (C) Rs. 55  (D) Rs. 60