CA FINAL
ISCA MCQ

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1. Which is the important characteristic of information system?
   a) Pre-determined objective
   b) Interrelated subsystems
   c) Interdependent subsystem
   d) All the above

2. During an audit of financial transactions in an enterprise XYZ, it was found that simple errors of data entry were occurring when two digits that were either individual or part of larger sequence of numbers were reversed when posting a transaction. Which type of error is this?
   a) Addition Error
   b) Truncation Error
   c) Substitution Error
   d) Transposition Error

3. Which is not the feature of CBS?
   a) Opening new accounts
   b) Customer Relationship
   c) Interest Calculation
   d) Manual Recording

4. Management information systems (MIS)
   a) create and share documents that support day-today office activities
   b) process business transactions (e.g., time cards, payments, orders, etc.)
   c) capture and reproduce the knowledge of an expert problem solver
   d) use the transaction data to produce information needed by managers to run the business

5. An information system that supports the planning and assessment needs of executive management is
   a) DSS
   b) ERP
   c) MIS
   d) none of the above

6. A spreadsheet is one type of _____ support tool.
   a) Operational
   b) Decision
   c) Success
   d) Simulation

7. Which category of computer-based information systems are concerned with improving efficiency by applying information technology to common administrative tasks, such as creating business documents?
   a) Expert systems
   b) Business information systems

c) Strategic information system
d) Office automation systems

8. While Auditing the Input Controls in an enterprise ABC, which of the following controls will not fall under the purview of Input Controls?
   a) Source Document Controls
   b) Data Coding Controls
   c) Boundary Controls
   d) Batch Controls

9. The decision-making environment of an executive level manager can be characterized as:
   a) structured.
   b) Semi structured.
   c) unstructured.
   d) None of the above.

10. The decision-making environment of an operational level manager can be characterized as:
    a) structured.
    b) Semi structured.
    c) unstructured.
    d) None of the above.

11. A drill-down capability is often included in a(n):
    a) transaction processing system.
    b) decision support system.
    c) executive information system.
    d) All of the above.

12. Which of the following is true of management information systems?
    a) They use TPS data.
    b) They produce standard reports on a regular basis.
    c) They assist managers in routine decision making.
    d) All of the above

13. Which of the following is NOT a characteristic of an ERP system? They:
    a) are large in scope.
    b) integrate many applications into one system.
    c) can span an entire company.
    d) are easy to implement.

14. Part of software which process data and generate report :
    a) Front End
    b) Back End
    c) Internal system

d) None of these

15. Which are the controls that are responsible for maintaining a chronology of the events from the time a sender dispatches a message to the time a receiver obtains the message?
   a) Boundary Controls
   b) Communication Controls
   c) Input Controls
   d) Database Controls

16. Which statement is false
   a) Top management support is a pre-requisite of an effective MIS
   b) MIS is all about computer is a misconception
   c) MIS is very useful in making non programmed decisions
   d) Non availability of cooperation from staff is a constraint in operating MIS

17. In ABC, financial institution, the authorised officials identified existence of numerous accounts numbers of inactive accounts in their usage data of active customers. Complaint was reported to their IT team. Which type of controls can be exercised by the IT Team in the given case?
   a) Corrective Controls
   b) Detective Controls
   c) Preventive Controls
   d) Compensatory Controls

18. Data mining is used for
   a) Text mining
   b) Web analysis
   c) Customer profiling
   d) All of the above

19. Data has to be _____ before it can be converted into information
   a) Transformed
   b) Processed
   c) Changed
   d) Engineered

20. _____ Attempt to provide the same judgmental advice that human experts such as doctors provide.
   a) ES
   b) AI
   c) KMS
   d) DSS

21. ACID test in a Transaction processing system (TPS) stands for
   a) Atomicity , confidentiality , isolation , Durability

b) Authenticity , confidentiality ,integrity , Durability
c) Authenticity , consistency , integrity , Durability
d) Atomicity , consistency , , isolation , Durability

22. The basic component(s) of DSS is (are)
   a) Database
   b) Model base
   c) DSS software system
   d) All of the above

23. Information system model does not comprises
   a) Input
   b) Process
   c) Output
   d) Storage

24. Component of TPS does not include
   a) Input
   b) Process
   c) Output
   d) Feedback

25. Under Data Resource Management Control _____ controls are designed to prevent unauthorized individual from viewing, retrieving, computing or destroying the entity's data in any organization.
   a) Access
   b) Backup
   c) Concurrency
   d) Quality

26. Susan woke up and went to the bank to take money out of the ATM. She then went coffee cafe to buy a coffee and paid with her debit card. She finished off her day by going to school and registered online for her computer class. Susan has had multiple contacts with what kind of information systems throughout her day?
   a) TPS
   b) MIS
   c) EIS
   d) None of the above.

27. "Installation of Firewalls "in a telecommunication network is a classic example of____controls under Information Systems 'Controls.
   a) Managerial
   b) Application
   c) Preventive

d) Corrective

28. In an expert system, the process of matching a question to the information in the knowledge base is called:
   a) Deduction.
   b) inferencing.
   c) inclusion.
   d) None of the above.

29. Decision makers who are concerned with tactical information and decision making are
   a) middle managers
   b) executive managers
   c) supervisors
   d) mobile managers

30. Decision makers who are concerned with Strategic information and decision making are
   a) middle managers
   b) executive managers
   c) supervisors
   d) mobile managers

31. The back bone of any organization is
   a) Information
   b) Employee
   c) Management
   d) Capital

32. System providing information to help management to launch a new product shall be best classified as
   a) Management Level System
   b) Operational Level System
   c) Knowledge Level System
   d) Strategic Level System

33. Documented and easily formalized knowledge is termed as
   a) Data
   b) Information
   c) Tacit knowledge
   d) Explicit knowledge

34. Correctness of information , is best classifiable into
   a) Validity
   b) Adequacy
   c) Quality

d) Reliability

35. OAS can be classifiable into
    a) Operational level System
    b) Knowledge level System
    c) Strategic level system
    d) Management level system

36. IT has a impact on information system of following sectors, other than
    a) Wholesale & retailing
    b) Financial sector
    c) Construction
    d) E-Business

37. Unarticulated Knowledge is termed as
    a) Information
    b) Explicit Knowledge
    c) Tacit knowledge
    d) None of the above

38. Which one is not a component of ERP
    a) Software component
    b) Process flow
    c) Change customer
    d) Change management

39. Identify the odd one
    a) Any computer based system id MIS
    b) Any reporting g system is MIS
    c) Expert faces the problem of selecting subsystem
    d) More data means more information

40. MIS can be manual
    a) True
    b) False

41. What must a system do to qualify as a true ERP solution?
    a) Be flexible
    b) Be modular and closed
    c) Extend within the company
    d) All of the above

42. Which one is not Prerequisite of an effective MIS
    a) Database

b) Support from Staff
c) Control and maintenance of MIS
d) Qualified staff and management

43. Under Asynchronous attacks in telecommunication network systems, _____ involves spying on information being transmitted over communication network.
    a) Wire-tapping
    b) Data Leakage
    c) Subversive attacks
    d) Piggybacking

44. The traditional business system is called as_____.
    a) modern method.
    b) advanced method.
    c) effective method.
    d) legacy method

45. Orderly arrangement of interdependent ideas can be termed as
    a) Open system
    b) Automated system
    c) Deterministic system
    d) Abstract system

46. The main drawback of legacy system is _____
    a) less effectiveness.
    b) high cost
    c) no integration.
    d) more modules

47. A computer-based information system
    a) may require some tasks to be done manually
    b) should not have any manual tasks
    c) is always fully automated
    d) may use only computers

48. Provide the correct sequence of phases of Program Development Life Cycle.
    (1) Operations and Maintenance, (2) Coding, (3) Control, (4) Design, (5) Testing and (6)Planning
    a) (4)-(6)-(2)-(3)-(1)-(5)
    b) (6)-(3)-(4)-(2)-(5)-(1)
    c) (1)-(6)-(3)-(5)-(4)-(2)
    d) (3)-(5)-(2)-(1)-(6)-(4)

49. Which of the following is a strong password ?
    a) 19thAugust88

b) Delhi88
c) P@assw0rd
d) !augustdelhi

50. Which happens first , authorization or authentication ?
   a) Authorization
   b) Authentication
   c) Authorization & Authentication are same
   d) None of the mentioned

51. Organisation Pajama ltd has a policy that Internet accessed by the employees will always be routed through a firewall and proxy . this is an example of which network access control?
   a) Segregation of network
   b) Network connection and routing control
   c) Firewall
   d) Enforced path

52. Organisation Pajama ltd has a policy to ensure that network connection between the heads of two branches must be through a secured VPN instead of general network service to ensure the integrity of the message communicated. This control of network access is an example of which control.
   a) Segregation of network
   b) Network connection and routing control
   c) Firewall
   d) Enforced path

53. Organisation Pajama ltd has a policy to ensure that employees are not allowed to establish a connection to specified web sites for example facebook , twitter , etc . This control of network access is an example of which control .
   a) Segregation of network
   b) Network connection and routing control
   c) Call back devices
   d) Security of network service

54. From the following, which is not a common file permission?
   a) Write
   b) Execute
   c) Stop
   d) Read

55. In ABC, financial institution, the authorized officials identified existence of numerous accounts numbers of inactive accounts in their usage data of active customers. Complaint was reported to their IT team. Which type of controls can be exercised by the IT Team in the given case?
   a) Corrective Controls

b) Preventive Controls
c) Detective Controls
d) Compensatory Controls

56. Which of the following is a good practice?
    a) Give full permission for remote transferring
    b) Grant read only permission
    c) Grant limited permission to specified account
    d) Give both read and write permission but not execute

57. Which of the following is least secure method of authentication ?
    a) Key card
    b) fingerprint
    c) retina pattern
    d) Password

58. What forces the user to change password at first logon?
    a) Default behavior of OS
    b) Part of AES encryption practice
    c) Devices being accessed forces the user
    d) Account administrator

59. Firewall is an example of
    a) Preventive control
    b) Detective control
    c) Corrective control
    d) Compensatory control

60. Security guard of ATM is a example of
    a) Preventive control
    b) Detective control
    c) Corrective control
    d) Compensatory control

61. Which of the following statement is not true for Internal Control System?
    a) Facilitates the effectiveness and efficiency of operations.
    b) Helps safeguarding the assets of the entity.
    c) Assists compliance with applicable laws and regulations.
    d) Helps ensure the reliability of only Internal Financial Reporting and not External Financial Reporting.

62. Security guard of bank building is a example of _____control to information system
    a) Preventive
    b) Detective

c) Corrective
d) Compensatory

63. Audit trail is an example of
    a) Preventive control
    b) Detective control
    c) Corrective control
    d) Compensatory control

64. BCP is an example of
    a) Preventive control
    b) Detective control
    c) Corrective control
    d) Compensatory control

65. Mechanism to provide logical access include
    a) Identification , authentication and encryption
    b) Authentication , authorization and password
    c) Identification , Authentication , authorization
    d) Encryption , password and identification

66. Detailed steps to be followed to accomplish security related tasks
    a) Standards
    b) Guidelines
    c) Procedures
    d) None

67. What technology and method to be used to secure the system
    a) Standards
    b) Guidelines
    c) Procedures
    d) None

68. Encryption is required to
    i) protect business information from eavesdropping when it is transmitted on internet (ii)efficiently use the bandwidth available in PSTN
    ii) to protect information stored in companies' databases from retrieval
    iii) to preserve secrecy of information stored in databases if an unauthorized person retrieves it
    a) i and ii
    b) ii and iii
    c) iii and iv
    d) i and iv

69. DES stands for
    a) Digital Evaluation System
    b) Digital Encryption Standard
    c) Digital Encryption System
    d) Double Encryption Standard

70. The pattern that can be used to identify a virus is known as
    a) stealth
    b) virus signature
    c) armoured
    d) multipartite

71. Which one of the following is a process that uses the spawn mechanism to damage the system performance?
    a) worm
    b) Trojan
    c) threat
    d) virus

72. What is a trap door in a program?
    a) a security hole, inserted at programming time in the system for later use
    b) a type of antivirus
    c) security hole in a network
    d) none of the mentioned

73. File virus attaches itself to the
    a) source file
    b) object file
    c) executable file
    d) all of the mentioned

74. What is regarded as a form of social engineering?
    a) Cryptoware
    b) Denial of Service (DOS) attack
    c) Phishing
    d) Spam

75. Which of the following is a malicious program that hide in a host program and cause illegitimate actions?
    a) Worm
    b) Trojan horse
    c) Time bomb
    d) Logic bomb

76. The _____ is code embedded in some legitimate program that is set to 'explode' when certain conditions are met.
    a) Trap doors
    b) Trojan horse
    c) Logic Bomb
    d) Virus

77. Which of the following malicious program do not replicate automatically?

    a) Trojan horse
    b) Virus
    c) Worm
    d) Zombie

78. State whether true of false.
    i) A worm do not need a host program.
    ii) A worm executes a copy of itself over several places on network
    a) True, false
    b) False, true
    c) True, true
    d) False, false

79. What is a firewall?
    a) An antivirus software
    b) Software that logs Internet activity
    c) A filter for an Internet connection
    d) A wall which is burning

80. What is a proxy server?
    a) A server that retrieves data from host servers before sending it to a computer
    b) A virtual server that can behave like a mail server, Web server or FTP server
    c) A waiter who never seems to be in the restaurant when your water glass is empty
    d) None of these

81. Firewall as part of a router program
    a) filters only packets coming from internet
    b) filters only packets going to internet
    c) filters packets travelling from and to the intranet from the internet
    d) ensures rapid traffic of packets for speedy e-Commerce

82. A firewall may be implemented in
    a) routers which connect intranet to internet
    b) bridges used in an intranet
    c) expensive modem

d) user's application programs

83. The major objectives of control are
    i) guard against frauds in data entry/processing
    ii) check clerical handling of data before it enters a computer
    iii) to provide a method to trace the steps and find where error has occurred
    iv) to address to technological advancements
    a) i, ii and iv
    b) i, ii, iii and iv
    c) i, ii and iii
    d) i and iii

84. Authorization can be
    a) Only Ticket oriented
    b) Only list oriented
    c) Both Ticket oriented and list oriented
    d) None

85. Which type of lock provide a 10 digit number panel mounted near/on door?
    a) Cipher door LOCK
    b) Electronic door lock
    c) Bolting door lock
    d) Biometric door lock

86. Scavenging to commit cyber crime means.
    a) Using back door to bypass normal security controls
    b) Tricking employees to give away login information
    c) Gaining access to system by pretending to be a authorised user
    d) Gaining access of information by searching discarded files

87. Masquerading involves
    a) Using back door to bypass normal security controls
    b) Tricking employees to give away login information
    c) Gaining access to system by pretending to be a authorised user
    d) Gaining access of information by searching discarded files

88. Trap door is a way of
    a) Using back door to bypass normal security controls
    b) Tricking employees to give away login information
    c) Gaining access to system by pretending to be a authorised user
    d) Gaining access of information by searching discarded files

89. Identify the odd one
    a) Identification badges

b) Manual logging
c) Perimeter fencing
d) Encryption of data

90. BCP controls include
    a) DRP and insurance
    b) Outsoursing and backup
    c) BCM and BCP policy
    d) Cloud and grid

91. What is the process of encoding information in a way so that only someone with a key can decode it?
    a) Compression
    b) Systematic variation
    c) Encryption
    d) Decryption

92. What is phishing?
    a) A decryption method that uses complex algorithms
    b) A method of online identity theft
    c) A way to send spam mail to millions of people at once
    d) Fishing

93. The uses a special system program to bypass normal system login procedures.
    a) Trap doors
    b) Trojan horse
    c) Logic Bomb
    d) Super zapping

94. _____ programs can be used to accomplish functions indirectly that an unauthorized user could not accomplish directly.
    a) Zombie
    b) Worm
    c) Trojan Horses
    d) Logic Bomb

95. Why is one time password safe ?
    a) It is easy to generated
    b) It cannot be shared
    c) It is different for every access
    d) It is a complex encrypted password

96. How often should BCM policies be reviewed?
    a) Annually

b) Monthly
c) Quarterly
d) Regularly

97. When should the BCP be reviewed?
   a) Whenever encountering a disaster
   b) At least annually or whenever significant changes occur
   c) Whenever the company gets audited
   d) Whenever the legal department declares it is time

98. Rahul had a server crash on Thursday morning. Rahul performed a backup in which he used the complete backup from Sunday and several other tapes from Monday, Tuesday, and Wednesday. Which tape-backup method was used?
   a) Full restore
   b) Mirror restore
   c) Differential restore
   d) Incremental restore

99. Which is a separate fully equipped facility where the company can move immediately after the disaster and resume business
   a) Disaster recovery plan
   b) Hot site
   c) Cold site
   d) Warm site

100. Which is a separate facility that does not have any computer equipment but is a place where the knowledge workers can move after the disaster ?
   a) Disaster recovery plan
   b) Hot site
   c) Cold site
   d) Warm site

101. What should the scope of the BCM be to understand the needs and expectations of interested parties?
   a) At least the main business processes
   b) Only services including the IT department
   c) All of the organization's profitable services
   d) only the activities that are highly prone to disaster

102. Of which process should Business Continuity programs be a part?
   a) Incident Management process
   b) Compliance process
   c) Governance process
   d) Problem Management process

103. What is the most important aspect of disaster recovery?
   a) A complete damage assessment
   b) Control of critical assets
   c) Restoration of business functions
   d) Protection of individual life

104. What is one of the purposes of the Business Impact Analysis (BIA)?
   a) to determine the maximum level at which activities need to be performed
   b) to determine minimal acceptable outage
   c) to identify risks
   d) assess the impact of disruptions for a longer period

105. When determining the scope of the BCM, what is true?
   a) The scope only relates to the internal needs of the organization
   b) The scope should always cover the whole organization.
   c) The scope should document and explain any exclusions.
   d) The scope should never be changed.

106. Arrange the following in correct order in reference to BCP:
   1. Vulnerability Assessment
   2. Project Initiation
   3. Detailed Requirement
   4. BIA
   5. Plan development
   6. Implement plan
   7. Test program
   8. Maintenance Program
   a) 1,2,3,4,5,6,7,8
   b) 1,2,4,3,5,7,8,6
   c) 2,1,4,3,5,7,8,6
   d) 2,1,4,3,5,6,7,8

107. BCP does not include
   a) Crisis Management
   b) Business continuity Management
   c) Business resumption planning
   d) Disaster recovery planning

108. How should the top management demonstrate its commitment to the BCM?
   a) appoint a business continuity manager
   b) conduct effective management reviews of the BCMS
   c) ensure that BCM objectives are aligned to the strategic goals of the business
   d) hire external expertise regarding BCM

109. Which plan typically focuses on restoring systems after disasters occur?
    a) Incident Response Plan.
    b) Disaster Recovery Plan.
    c) Business Continuity Plan.
    d) Risk Management Plan

110. Incremental backup is a backup taken from Last back up . Here what kind of backup could be the "Last Backup"?
    a) Full back up
    b) differential backup
    c) Full back up or differential back up
    d) Full back or Incremental back up

111. When identifying risks of disruptive incidents, how are single points of failure (SPOF), inadequacies in fire protection, electrical resilience, staffing levels, IT security and IT resilience considered?
    a) Impacts
    b) Risks
    c) Threats
    d) Vulnerabilities

112. There are several reasons why a company would develop and implement a business continuity plan. Which of the following properly describes the best reason?
    a) To increase liability
    b) The continuation of a company
    c) Compliancy with regulations
    d) Properly react to disasters

113. What is not one of the outcomes indicative of an effective Business Continuity program?
    a) The impact of a disruption on the organization's key services is limited.
    b) The likelihood of a disruption is reduced.
    c) The period of disruption is shortened.
    d) The organization's supply chain record is secured

114. The organization should identify nonconformities, take action to control, contain and correct them, deal with the consequences and evaluate the need for action. What should be the basis for determining the priority of corrective actions?
    a) Results of the Incident log
    b) Results of an Internal audit
    c) Results of the management review
    d) Results of the risk assessment and impact analysis

115. What do we call the process of seeking out and studying practices in other organizations that one's own organization desires to duplicate?
    a) Baselining
    b) Benchmarking
    c) Best practices
    d) Due diligence

116. BIA is a part of
    a) Development process of BCM
    b) Strategy process of BCM
    c) Management process of BCM
    d) Information Collection process of BCM

117. Which of the following groups is responsible for project initiation?
    a) Functional business units
    b) Senior management
    c) BCP team members
    d) Middle management

118. Which BCM document contains a set of principles?
    a) Standard
    b) Stakeholder analysis
    c) Procedure
    d) Policy

119. Which of the following does not describe a reciprocal agreement?
    a) Since not alternative resources has to be maintained , it is a most efficient arrangement.
    b) It is a cheap solution.
    c) It may be able to be implemented right after a disaster.
    d) It could overwhelm a current data processing site.

120. Which Alternative processing facility is most efficient to support processing
    a) Reciprocal agreement
    b) Cold site
    c) Warm site
    d) Hot Site

121. Which of the following backup technique is most space efficient?
    a) Full backup
    b) Incremental backup
    c) Differential backup
    d) All of the mentioned

122. Which of the following statements are true with reference to BCP?
    a) A good recovery is dependent upon good backup plan

b) Prior notice should be given to people who will be affected by the test of BCP

c) More than one person should have knowledge of backup tasks

d) All of the mentioned

123. Which of the following qualifies as best DR (Disaster Recovery) site?
    a) DR site in the same campus
    b) DR site in the same city
    c) DR site in the same country
    d) DR site in a different country

124. Which of the following is false?
    a) The more important the data, the greater the need for backing it up
    b) A backup is as useful as its associated restore strategy
    c) Storing the backup copy near to its original site is best strategy
    d) Automated backup and scheduling is preferred over manual operations

125. Which one is the most time consuming Back type
    a) Full back up
    b) Incremental back up
    c) Differential back up
    d) Mirror back up

126. In which back up type data is backed up without encryption
    a) Full backup
    b) Incremental back up
    c) Differential back up
    d) Mirror back up

127. Which process can prevent data from lose due to computer problems or human errors?
    a) Backup
    b) recovery
    c) benchmarking
    d) data cleansing

128. Whose responsibility it is to conduct interviews with the users and understand their requirements?
    a) Steering committee
    b) Project managers
    c) Business Analyst
    d) Domain Specialist

129. "Consider a system where, a heat sensor detects an intrusion and alerts the security company." What kind of a requirement the system is providing ?
    a) Functional

b) Non-Functional
c) Known Requirement
d) None of the mentioned

130. Which one of the following models is not suitable for accommodating changes?
a) spiral model
b) Prototyping Model
c) RAD Model
d) Waterfall Model

131. The work associated with software development can be categorized into three generic phases, regardless of application area, project size, or complexity ,namely the_____phase   which focuses on what, the__phase which focuses on how and the___phase which focuses on change.
1. Support
2. Development
3. Definition
a) 1, 2, 3
b) 2, 1, 3
c) 3, 2, 1
d) 3, 1, 2

132. "Using CASE Tools". CASE stands for
a) Cost Aided Software Engineering
b) Computer Aided Software Engineering
c) Control Aided Software Engineering
d) None of the mentioned

133. Which one of the following is a functional requirement ?
a) Maintainability
b) Portability
c) Robustness
d) None of the mentioned

134. Which of the following is not the primary objectives in the Preliminary investigation of system development?
a) Assess cost and benefit of alternative approces
b) determining the size of the project
c) Preparing the SRS to cover all the system specifications
d) Report finding to the management with recommendation to accept or reject the proposal

135. _____ and _____ are not the subject matter of Requirement Analysis.
a) Performance, modeling present system
b) Stakeholder knowledge of computers , Developer's staff
c) Functional, Non-Functional

d) internal controls , present system work load

136. Arrange the given sequence to form a SRS Prototype outline as per SRS Standard.
    i.   General description
    ii. Introduction
    iii. Review
    iv. Appendices
    v.   Specific Requirements
    a) iii, i, ii, v, iv
    b) iii, ii, i, v, iv
    c) ii, i, v, iv, iii
    d) iii, i, ii, v, iv

137. "Robustness" answers which of the following description?
    a) CASE tools be used to support the process activities
    b) Process errors are avoided or trapped before they result in product errors
    c) Defined process is acceptable and usable by the engineers responsible for producing the software
    d) Process continues in spite of unexpected problems

138. Software Testing with real data in real environment is known as
    a) alpha testing
    b) beta testing
    c) regression testing
    d) none of the mentioned

139. Which of the following is not included in SRS ?
    a) Performance
    b) Functionality
    c) Design solutions
    d) External Interfaces

140. If you were a lead developer of a software company and you are asked to submit a project /product within a stipulated time-frame but within cost barriers, which model would you select?
    a) Waterfall
    b) Spiral
    c) RAD
    d) Incremental

141. Which of the following statements about SRS is/are true ?
    i.   SRS is written by customer
    ii. SRS is written by a developer
    iii. SRS serves as a contract between customer and developer
    a) Only i is true

b) Both ii and iii are true
c) All are true
d) None of the mentioned

142. Risk analysis of a project is done in :
a) System Analysis phase
b) Feasibility Study
c) Implementation phase
d) Maintenance phase

143. Which two of the following models will not be able to give the desired outcome if user's participation is not involved?
a) Waterfall & Spiral
b) RAD & Spiral
c) RAD & Waterfall
d) RAD & Prototyping

144. RAD stands for
a) Relative Application Development
b) Rapid Application Development
c) Rapid Application Document
d) None of the mentioned

145. Choose the correct combination of good coded program:
a) Usability, Reliability, Robustness, Flexibility
b) Availability, Reliability, Maintainability, Usability
c) readability, robustness, Usability, Accuracy
d) Accuracy, robustness, Testability, Usability

146. The modification of the software to match changes in the ever changing environment, falls under which category of software maintenance?
a) Corrective
b) Adaptive
c) Perfective
d) Preventive

147. Which model can be selected if user is involved in all the phases of SDLC?
a) Waterfall Model
b) Prototyping Model
c) RAD Model
d) both Prototyping Model & RAD Model

148. Which one is not considered during Technical Feasibility :
a) Expandability

b) Existence of technology
c) Suitability of technology
d) human resource to use the technology

149. Which of the following life cycle model can't be chosen if the development team has less experience on similar projects?
a) Spiral
b) Waterfall
c) RAD
d) Iterative Model

150. A step by step instruction used to solve a problem is known as
a) Sequential structure
b) A List
c) A plan
d) An Algorithm

151. Which of the following property does not correspond to a good Software Requirements Specification (SRS)?
a) Verifiable
b) Ambiguous
c) Complete
d) Traceable

152. Which of the following is not a part of Decision Table?
a) Condition Stub
b) Preferences Stub
c) Action Stub
d) Action Entries

153. Software Maintenance includes
a) Error corrections
b) Enhancements of capabilities
c) Deletion of obsolete capabilities
d) All of the mentioned

154. Identify the disadvantage of Spiral Model.
a) Doesn't work well for smaller projects
b) High amount of risk analysis
c) Strong approval and documentation control
d) Additional Functionality can be added at a later date

155. Beta Testing is done by
a) Developers

b) Testers
c) Users
d) All of the mentioned

156. Requirements analysis is critical to the success of a development project.
   a) True
   b) False

157. _____test is not included in unit testing
   a) Stress
   b) Structural
   c) Functional
   d) Security

158. An iterative process of system development in which requirements are converted to a working system that is continually revised through close work between an analyst and user is called
   a) Waterfall modeling
   b) Iterative modeling
   c) Spiral modeling
   d) None of these above

159. Which of the following does not apply to agility to a software process?
   a) Uses incremental product delivery strategy
   b) Only essential work products are produced
   c) Eliminate the use of project planning and testing
   d) All of the mentioned

160. In a proposed system, entity finds that system does not have an option to modify rates of TDS. The need may arise whenever law changes in future. This failure may be defined as failure of...
   a) Economic Feasibility
   b) Legal Feasibility
   c) Operational Feasibility
   d) Schedule Feasibility

161. A task of developing a technical blueprint and specifications for a solution that fulfills the business requirements is undertaken in the following phase of the system development process
   a) system implementation
   b) system Requirement analysis
   c) system design
   d) feasibility study

162. Project Management ensures that
   a) project's risk is assessed

b) project's feasibility is assessed
c) system is developed at minimum cost
d) both a and b

163. Which one is NOT a phase of the systems development life cycle?
    a) problem analysis
    b) requirements analysis
    c) post-implementation review
    d) Customer analysis

164. Prototypes are used in
    a) model-driven analysis
    b) traditional approaches
    c) accelerated systems analysis
    d) structured analysis

165. Which of the following is NOT a feasibility analysis criterion?
    a) technical feasibility
    b) schedule feasibility
    c) operational feasibility
    d) Hardware feasibility

166. The task of identifying and expressing system requirements is performed in which phase of systems analysis?
    a) problem analysis phase
    b) scope definition phase
    c) requirements analysis phase
    d) System Development phase

167. Cause-and-effect analysis is performed in which of the following phase of systems development
    a) scope definition phase
    b) requirements analysis phase
    c) design phase
    d) System testing phase

168. It is necessary to design an information system to easily accommodate change, because
    a) new computers are introduced every year
    b) new computer languages become popular every year
    c) organizations' requirements change over a period of time
    d) systems need continuous debugging

169. System analysts have to interact with
    i. managers of organizations

     ii.   users in the organization
    iii.   programming team
    iv.   data entry operator
- a) iii and iv
- b) i, ii and iii
- c) ii, iii and iv
- d) ii and iii

170. The primary responsibility of a systems analyst is to
- a) specify an information system which meets the requirements of an organization
- b) write programs to meet specifications
- c) maintain the system
- d) meet managers of the organization regularly

171. By technical feasibility of a solution we mean that
- a) technology is available to implement it
- b) persons are available to implement it
- c) persons have technical ability to implement it
- d) funds are available to implement it

172. By operational feasibility we mean
- a) the system can be operated nicely
- b) the system is unusable by operators
- c) the system can be adapted by an organization without major disruptions
- d) the system can be implemented

173. A cost-benefit analysis is performed to assess
- a) economic feasibility
- b) operational feasibility
- c) technical feasibility
- d) all of the above

174. The intangible benefits in the following list are
    i.   savings due to reducing investment
    ii.   savings due to sending bills faster and consequent early collection
    iii.   providing better service to the customers
    iv.   improving quality of company's products
- a) i and ii
- b) ii and iii
- c) iii and iv
- d) i and iii

175. The primary objective of cost-benefit analysis is
- a) to find out direct and indirect cost of developing the information system

b) to determine the tangible benefits of the information system
c) to determine if it is economically worthwhile to invest in developing the information system
d) to determine the intangible benefits of the information system

176. With the help of what tools, IT auditor can plan for 100% substantive testing
    a) CAAT
    b) ERP
    c) COBIT
    d) Manual

177. CAAT tools are used by the Auditor to perform Substantive Testing. CAAT stands for.
    a) Computer Aided Audit Technique
    b) Computer Aided Audit Tools
    c) Computer Assisted Audit Technique
    d) Computer Accounting and Auditing Technique

178. By auditing around the computer we mean
    a) the inputs and the corresponding outputs are compared and checked for correctness
    b) the programs and procedures are checked for correctness
    c) special synthetic data is input and outputs checked for correctness
    d) programs are written to check the functioning of the computer hardware

179. By auditing with a computer we mean
    a) the inputs and the corresponding outputs are compared and checked for correctness
    b) the programs and procedures are checked for correctness
    c) special synthetic data is input and outputs checked for correctness
    d) programs are written to check the functioning of the computer hardware

180. By auditing through the computer we mean
    a) the inputs and the corresponding outputs are compared and checked for correctness
    b) the programs and procedures are checked for correctness
    c) special synthetic data is input and outputs checked for correctness
    d) programs are written to check the functioning of the computer hardware

181. How systemic Error help Auditor in Evidence Evaluation
    a) Systemic Error raise audit flags on system errors to auditor against which auditor can easily take action
    b) Systemic errors are the errors made by system in processing thus auditor only required to evaluate system processing
    c) Systemic errors are made on all the transactions processed thus it reduces auditor time to evaluate evidence
    d) All of the above

182. In an organisation Auditor wants to collect evidences based on system user profiles ; which CATT can be used by the auditor to achieve the objective
    a) CIS
    b) Audit Hooks
    c) Audit Trails
    d) SCARF

183. To perform IS audit IS Auditor must possess a good skills set ;in reference to this identify the wrong statement
    a) Should have Knowledge of IT policies
    b) Should have Knowledge of IT ACT
    c) Should be Able to understand BCP controls to organization
    d) Must possess CA degree

184. Risk-control-Matrix is developed in which step of IS audit
    a) Analysis
    b) Planning
    c) Fieldwork
    d) Reporting

185. Which CAT tool facilitate real time notification display of messages on the auditor terminal
    a) Snapshot
    b) SCRAF
    c) CIS
    d) Audit Hook

186. Which one is not the objective of Audit Trail.
    a) Audit trail promote Personal Accountability
    b) Audit detect Unauthorized Access
    c) to promote good internal control
    d) Audit trail facilitate reconstruction of events

187. Auditor uses SCARF to collect various information; what does SCARF stands for
    a) System Control Audit review file
    b) System Control Audit review facility
    c) Software control Auditor's review file
    d) Software control Auditor's review facility

188. Which one is not Audit preformed during system development process
    a) Concurrent audit
    b) Pre-implementation Audit
    c) Post-Implementation Audit
    d) General Audit

189. IT audit is the process of collecting and evaluating evidence to determine
    a) Whether a computer system safeguards assets
    b) Whether maintains data integrity
    c) Whether allows organizational goals to be achieved effectively and uses resources efficiently
    d) All of the above

190. The objectives of IT audit include
    a) Ensures asset safeguarding
    b) Ensures that the attributes of data or information are maintained
    c) Both (a) and (b)
    d) None of the above

191. Failing to detect a material error would represent which type of risk?
    a) Overall Audit Risk
    b) Detection Risk
    c) Inherent Risk
    d) Control Risk

192. Which is one of the bigger concerns regarding asset disposal?
    a) Residual Asset Value
    b) Employees taking disposed property home
    c) Standing data
    d) Environmental Regulations

193. Audit Trail is an example of _____ control
    a) Detective
    b) Application
    c) Preventive
    d) Correction

194. Which one is not a Boundary control audit trail :
    a) Resources requested
    b) No of sign on attempts
    c) Authentication of information supplied
    d) Time and date of printing output

195. Which among the following is not a compliance test as related to IT environment
    a) Determining whether passwords are changed periodically.
    b) Determining whether systems logs are reviewed
    c) Determining whether program changes are authorised.
    d) Reconciling account balances

196. Which among the following is not a limitation in IT Audit
    a) Data used not from production environment

b) If these is only production environment and audit could not test dummy data

c) "Read only Access" given to audit

d) None of the above

197. The type of audit evidence which the auditor should consider using in IT audit includes
    a) Observed process and existence of physical items
    b) Documentary audit evidence excluding electronic records
    c) Analysis excludingIT enabled analysis
    d) None of the above

198. What is the commonly used example of generalised audit software?
    a) CAAT
    b) IDEA
    c) COBIT
    d) None of the above

199. A higher risk of system violation happens where
    a) The audit module is not operational
    b) The audit module has been disabled
    c) The audit module is not periodically reviewed
    d) All of the above

200. Auditing of information systems is primarily required to ensure the
    i. all input records are correct and are included in processing
    ii. the system has ample protection against frauds
    iii. the processing performance is reliable
    iv. the system is developed at low cost
    a) i and ii
    b) iii and iv
    c) ii and iii
    d) i , ii and iii

201. In which type of IT Audit Auditor ensure that it management has developed a controlled environment for information processing
    a) System and Application
    b) System development
    c) Information processing facility
    d) Management of IT and Enterprise Architecture

202. Which among the following is true as to Audit Reporting
    a) Normal reporting format is not adhered to in the case of IT Audit
    b) In IT audit, the base of the focus is the system
    c) In IT audit the audience for the report should normally be ignored
    d) None of the above

203. In case of outsourcing IT activities the IT auditor should
    a) Review the policies and procedures which ensure the security of the financial data
    b) Obtain a copy of the contract to determine if adequate controls have been specified
    c) Ensure that audit needs are taken into account and included in the contracts
    d) All of the above

204. What is the characteristic of detective control**
    a) Minimise the impact of a threat
    b) Use controls that detect and report the occurrence of an error, omission or malicious act.
    c) Detect problems before they occur
    d) None of the above

205. Which one is not a continuous audit technique
    a) Continuous ans intermittent simulation
    b) SCRAF
    c) Cobit
    d) Snapshot

206. The security goals of the organization does not cover
    a) Confidentiality
    b) Probability and impact of occurrence of Risk
    c) Availability
    d) Integrity

207. Identify the correct order of IT audit steps
    1. Planning
    2. Scoping
    3. Fieldwork
    4. Close
    5. Analysis
    6. Report
    a) 1,2,3,4,5,6
    b) 1,2,3,5,6,4
    c) 2,1,3,5,4,6
    d) 2,1,3,5,6,4

208. When IT Act 2000 came into effect?
    a) 17 October,2000
    b) 11 November,2000
    c) 17 October,2001
    d) 11 November,2001

209. IT Act 2000 amended various sections of which of the following Acts?
    a) Indian Penal Code 1860

b) Reserve Bank of India Act 1934
c) Indian Evidence Act 1872
d) All of the above

210. Which one of the following is outside the scope of IT Act 2000
   a) Electronic gift
   b) Power of Attorney with digital signature
   c) Electronic message
   d) Electronic Evidence

211. Which is outside the scope of IT ACT?
   a) Will
   b) Negotiable instrument except cheque
   c) Power of attorney
   d) All of the above

212. Which one is within the scope of IT ACT?
   a) Trust
   b) Electronic Agreement of sale of immovable property with digital signature
   c) Will
   d) Truncated Cheque

213. Ram has a office in Kolkata , from where he accessed server of google situated in New York and hacked password file . Is IT Act applicable on him
   a) Yes
   b) No

214. Ram has a office in New York , from where he accessed server of google situated in Kolkata and hacked password file . Is IT Act applicable on him
   a) Yes
   b) No

215. Ram has a office in New York , from where he accessed server of google situated in canada and hacked password file . Is IT Act applicable on him
   a) Yes
   b) No

216. Which of the following is an example of Intellectual property ?
   a) Trade Marks
   b) Copyright
   c) Patent
   d) All of the above

217. IT (Amendment)Act 2008 with amend IT Act 2000 , become effective from
   a) 27 oct 2008

b) 27 oct 2009
c) 21 july 2008
d) 21 may 2009

218. Which Act casts responsibility on body corporate to protect sensitive personal information and provide punishment for offences by companies.
a) IT Act 2000
b) IT (Amendment) Act 2008
c) Indian penal code
d) None

219. The section deals with legal recognition of electronic records
a) Section 6
b) Section 3
c) Section 4
d) Section 5

220. The section deals with legal recognition of digital signature
a) Section 3
b) Section 5
c) Section 6
d) Section 4

221. Which Act in India focuses on data protection and Data privacy ?
a) Banking Regulation Act 1949
b) IT Act 2000
c) Indian Penal Code
d) IT (amendment) Act 2008

222. Which section of IT Act deals with Child pornography and punishment provided by it for first conviction?
a) Section 27A , imprisonment upto 5 years plus fine upto 1000000
b) Section 67D , imprisonment upto 3 years plus fine upto 500000
c) Section 67C , imprisonment upto 3 years plus fine upto 500000
d) Section 67B , imprisonment upto 5 years plus fine upto 1000000

223. Which section of IT Act deals with publishing sexually explicit contect in e form and punishment provided by it for first conviction ?
a) Section 67A , imprisonment upto 5 years plus fine upto 1000000
b) Section 67A , imprisonment upto 3 years plus fine upto 500000
c) Section 67B , imprisonment upto 5 years plus fine upto 1000000
d) Section 67B , imprisonment upto 3 years plus fine upto 500000

224. Which of the following Act is not amended by IT Act 2000

a) Indian Penal Code 1860
b) Reserve Bank of India Act 1934
c) Bankers Book Evidence Act 1891
d) Income Tax Act, 1961

225. What is the proposed punishment for Cyber Terrorism in IT Act?
a) 1 crore rupees penalty
b) Life Imprisonment
c) 10 year imprisonment
d) 6 year imprisonment

226. Which section of IT Act 2000 proposes a punishment of life imprisonment?
a) Section 66F
b) Section 66C
c) Section 66B
d) Section 66A

227. What is the penalty(max) for destroying computer source code?
a) Three year imprisonment or 3 lakh rupees penalty or both
b) Two year imprisonment or 2 lakh rupees penalty or both
c) Three year imprisonment or 5 lakh rupees penalty or both
d) Three year imprisonment or 2 lakh rupees penalty or both

228. What is the time limit for filing appeal against the order of Cyber appellate tribunal?
a) 30 days
b) 90 days
c) 60 days
d) 45 days

229. What is the penalty for publishing images of a person's private parts without consent, as per IT Act 2000?
a) upto 5 years imprisonment or upto 5 lakh rupees penalty or both
b) Life imprisonment
c) upto 3 years imprisonment or upto 2 lakh rupees penalty or both
d) None of the above

230. Which section of IT Act deals with Cyber terrorism?
a) Section 66C
b) Section 66B
c) Section 66F
d) Section 66A

231. Penalty of not filing a document within prescribed time
a) upto 2000 per day

b) upto 3000 per day
c) upto 4000 per day
d) upto 5000 per day

232. What is the punishment for hacking of computers?
    a) upto Three year imprisonment or upto 10 lakh rupees penalty or both
    b) Life Imprisonment
    c) upto Three year imprisonment or upto 5 lakh rupees penalty or both
    d) upto Three year imprisonment or upto 2 lakh rupees penalty or both

233. What is the punishment for identity theft in IT Act?
    a) Upto Five year imprisonment & upto 5 lakh rupees
    b) Upto Three year imprisonment & upto 1 lakh rupees
    c) Upto Three year imprisonment or 1 lakh rupees penalty or both
    d) Upto Five year imprisonment or upto 5 lakh rupees or both

234. What is/are component of IT Act 2000 ?
    a) Regulation of Certification Authorities.
    b) Digital Certificates
    c) Legal Recognition to Digital Signatures
    d) All of the above

235. Controller of Certifying Authorities (CCA) work under ?
    a) Autonomous body
    b) Prime Minister office
    c) Ministry of Communication & IT
    d) Reserve Bank of India

236. Which section of IT Act deals with the appointment of Controller of certifying authorities?
    a) Section 5
    b) Section 15
    c) Section 10
    d) Section 17

237. Which Act which provides legal framework for e-Governance in India?
    a) Indian Penal Code
    b) IT (amendment) Act 2008
    c) IT Act – 2000
    d) None of the above

238. How many schedules are there in IT Act 2000?
    a) 3
    b) 4
    c) 6

d) 2

239. As per SEBI norms Auditor must have_____years of experience to perform Audit
    a) 5
    b) 10
    c) 3
    d) 4

240. Audit schedules must be submitted to SEBI in____advance
    a) 5 months
    b) 6 months
    c) 3 months
    d) 2 months

241. Each Non-Conformities must be corrected by auditee management within a period of_____and reported to SEBI.
    a) 1 month
    b) 2 month
    c) 3 month
    d) 4 month

242. As per IRDA all insurer must get their system & processes audited once in___years by a CA
    a) 3
    b) 5
    c) 4
    d) 6

243. What enable enterprise to get certified by an independent certification body which confirms that IS security is implemented in best possible manner?
    a) ITIL
    b) SA 402
    c) ISO27001
    d) BS47001

244. The authentication to be affected by use of asymmetric crypto system and hash function is known as
    a) Public key
    b) Private Key
    c) Digital signature
    d) E governance

245. Digital signature created and verified using
    a) Program
    b) Graphical coding

c) HTML
d) Cryptography

246. Private key is used to
   a) Digitally sign
   b) Verify the sign
   c) Verify the document
   d) Coding

247. Public key is used to
   a) Digitally sign
   b) Verify the sign
   c) Verify the document
   d) Coding

248. Verification of electronic record is possible through
   a) Public key
   b) Private key
   c) Digital signature
   d) Qualified staff and management

249. the central government may appoint a_____of certifying authority who shall exercise supervision over the activities of certifying Authorities .
   a) Commissioner
   b) Controller
   c) Executive
   d) President

250. The certifying authority empowered to issue a Digital Signature certificate shall have to procure a licence from the to issue a Digital Signature certificate
   a) Controller of certifying authority
   b) Central government
   c) State government
   d) Commissioner of certifying authority

251. _____ is the person in whose name the digital signature certificate is issued
   a) Certified authority
   b) Subscriber
   c) Holder
   d) Controller

252. The _____ has the power to suspend or revoke Digital Signature certificate
   a) Certified authority
   b) Subscriber

c) Commissioner
d) Controller

253. Which is the appeal court on the orders issued by Cyber appellate tribunal?
   a) Municipal court
   b) District Court
   c) High Court
   d) Supreme Court

254. As per IT Act 2000 if you fail to maintain books of accounts you will be penalized upto
   a) 5000 per day
   b) 50000
   c) Rs. 10000 per day
   d) NIL

255. E-record and Digital Signature are used to
   a) Filing of any form in government
   b) Issue of grant
   c) Make payment
   d) All of the above

256. As per IT Act 2000 those who fail to furnish documents will be penalized upto
   a) 5000 per day
   b) 50000
   c) 25000
   d) 150000

257. How many volumes does ITIL v3 provide
   a) 3
   b) 4
   c) 5
   d) 6

258. What provide set of practices for IT Service Management with focus on aligning IT service with business needs?
   a) Cobit 5
   b) ISO27001
   c) SA402
   d) ITIL

259. How many phase of ISMS are provided by ISO27001
   a) 4
   b) 5
   c) 6

d) 8

260. What does ISMS stands for .
a) Information system manage security
b) Information system management security
c) Information security management system
d) None

261. Which phase of ISMS review the effectiveness of ISMS
a) Plan phase
b) Do phase
c) Check phase
d) Act phase

262. Which phase of ISMS provide for the implementation of identified improvements
a) Plan phase
b) Do phase
c) Check phase
d) Act phase

263. Which phase of ISMS determine the scope of ISMS
a) Plan phase
b) Do phase
c) Check phase
d) Act phase

264. Which Volume of ITIL provide guidance on measurement of service performance throughout the life cycle and improvements to ensure service deliver maximum benefits?
a) Service strategy
b) Service transition
c) Service operation
d) Continual service improvement

265. As per IRDA guidelines who is not eligible to perform system audit
a) CA with less than 4 years of experience
b) Last year Auditor
c) Statutory auditor
d) Cost Auditor

266. Section 67, 67A, 67B applies in reference of children who have not completed _____ years of age?
a) 12
b) 14
c) 16

d) 18

267. Which SA provide the responsibilities of auditor to obtain sufficient audit evidences when entity uses the service of one or more service organization
    a) SA402
    b) SA406
    c) SA408
    d) SA410

268. Where company commits a offence under IT Act , who shall be punished ?
    a) Company
    b) Directors
    c) Person incharge
    d) Company and every person incharge

269. You can't count on a cloud provider maintaining your ___ in the face of government actions.
    a) Scalability
    b) Reliability
    c) Privacy
    d) none of the mentioned

270. Which of the following is Cloud Platform by Amazon ?
    a) Azure
    b) AWS
    c) Cloudera
    d) All of the mentioned

271. SWIGGY.IN formed a cloud for its all branches but due to its limited resources it obtained the services of AWS for extended provisioning and thus modified its cloud ; The cloud so formed is the example of _
    a) Private cloud
    b) Public cloud
    c) Hybrid cloud
    d) community cloud

272. Which of the following is best known service model?
    a) SaaS
    b) IaaS
    c) PaaS
    d) All of the mentioned

273. Point out the wrong statement :
    a) The vendor is responsible for all the operational aspects of the service
    b) The customer is responsible only for his interaction with the platform.

c) Google's App Engine platform is PaaS offering
d) SaaS require specific application to be accessed globally over the internet.

274. Provides virtual machines, virtual storage, virtual infrastructure, and other hardware assets.
    a) IaaS
    b) SaaS
    c) PaaS
    d) All of the mentioned

275. Usually methods like RAID strategies are used in cloud computing to maintain integrity. What RAID stands for?
    a) Redundant array of independent disks
    b) Redundant arrangements of independent disks
    c) Removal of array in independent disks
    d) Remove array for integrity dependent

276. Point out the wrong statement :
    a) in cloud computing user don't have to worry about data backup and recovery
    b) cloud computing can be used by small as well as big organization
    c) Cloud offer almost unlimited storage capacity
    d) All applications benefit from deployment in the cloud

277. Which of the following is owned by an organization selling cloud services ?
    a) Public
    b) Private
    c) Community
    d) Hybrid

278. Point out the wrong statement:
    a) Except for tightly managed SaaS cloud providers, the burden of resource management is still in the hands of the user
    b) Cloud computing vendors run highly reliable networks
    c) All cloud computing applications combine their resources into pools that can be assigned on demand to users
    d) None of the above

279. All cloud computing applications suffer from the inherent_____that is intrinsic in their WAN connectivity.
    a) Propagation
    b) latency
    c) noise
    d) None of the mentioned

280. Which of the following is specified parameter of SLA?
    a) Response times

b) Responsibilities of each party
c) Warranties
d) All of the mentioned

281. Which of the following should be replaced with the question mark in the following figure?
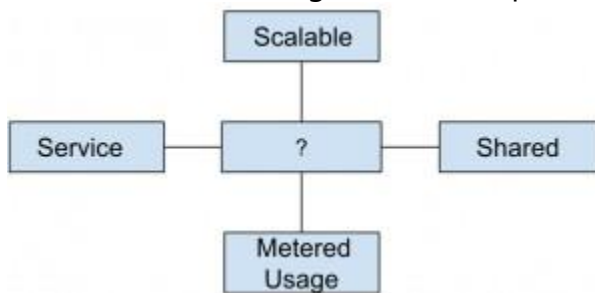
a) Abstraction
b) Virtualization
c) Mobility Pattern
d) All of the mentioned

282. What is the biggest disadvantage of community cloud ?
a) Collaboration has to be maintained with other participants
b) Less security features
c) Cloud is used by many organisation for different purposes
d) Organisation losses business autonomy

283. _____ enables batch processing, which greatly speeds up high-processing applications
a) Scalability
b) Reliability
c) Elasticity
d) Utility

284. Cloud computing shifts capital expenditures into__expenditures.
a) Operating
b) Service
c) Local
d) none of the mentioned

285. Cloud computing is also a good option when the cost of infrastructure and management is _____
a) low
b) high
c) moderate
d) none of the mentioned

286. Which of the architectural layer is used as backend in cloud computing?
a) Client

b) Cloud
c) Software
d) Network

287. Which of the following is most important area of concern in cloud computing?
a) Security
b) Storage
c) Scalability
d) All of the mentioned

288. _____ refers to the location and management of the cloud's infrastructure.
a) Service
b) Deployment
c) Application
d) None of the mentioned

289. SaaS supports multiple users and provides a shared data model through_____model.
a) single-tenancy
b) multi-tenancy
c) multiple-instance
d) all of the mentioned

290. Which of the following can be considered PaaS offering?
a) Google Maps
b) Gmail
c) Google Earth
d) All of the mentioned

291. Point out the wrong statement :
a) Due to vast number of users in public cloud SLA can't be strictly followed.
b) A community cloud may be managed by the constituent organization(s) or by a third Party
c) Private clouds may be either on- or off-premises
d) None of the mentioned

292. IaaS offer non-standard machine to customers.
a) True
b) False

293. Which of the architectural layer is used as front end in cloud computing ?
a) Client
b) Cloud
c) Soft
d) all of the mentioned

294. _____ as a Service is a cloud computing infrastructure that creates a development environment upon which applications may be build.
   a) Infrastructure
   b) Service
   c) Platform
   d) All of the mentioned

295. Which cloud is deployed when there is a budget constraint but business autonomy is most essential?
   a) Private cloud
   b) Public cloud
   c) Hybrid cloud
   d) Community cloud

296. CaaS vendor offer guaranteed QOS in SLA to their clients .what does QOS stands for ?
   a) Quality operating system
   b) Quality in other services
   c) Quality of service
   d) Quality object oriented service

297. _____ cloud is one where the cloud has been organized to serve a common function or purpose by many organisation .
   a) Public
   b) Private
   c) Community
   d) All of the mentioned

298. _____ offering provides the tools and development environment to deploy applications on another vendor's application.
   a) PaaS
   b) IaaS
   c) CaaS
   d) All of the mentioned

299. Which is not a characteristics of SaaS?
   a) Multi device support
   b) Web Access
   c) one to Many
   d) offline Access

300. Which is not an advantage of Grid?
   a) Scalable
   b) uses unused computing power
   c) provide standard and high cpu

d) multi-tenancy

301. Which of these is a software solution that fulfills the need of supercomputer in an organization ?
    a) Grid Computing
    b) Cloud Computing
    c) Virtualization
    d) Green Computing

302. In which of the following unused power of the hardware owners are borrowed and let out to others?
    a) Cloud Computing
    b) BYOD
    c) Mobile Computing
    d) Grid Computing

303. Grid computing enables_____resources of computers to work collaboratively to solve a complex problem
    a) Owned
    b) Homogeneous
    c) Heterogeneous
    d) Old

304. Which technology allows use of read/write web, blogs & interactive web application etc. ?
    a) Mobile Computing
    b) Grid Computing
    c) Cloud Computing
    d) Web 2.0

305. What Baas Stands for?
    a) Backup as a service
    b) Backend as a service
    c) Block as a service
    d) Blockage as a service

306. Which is not a benefit of BYOD?
    a) Lower IT Budget
    b) IT Reduces Support Requirement
    c) Dynamic Load Balances
    d) Increased Employee Efficiency

307. What allow data to be readily intercepted by machines so that data can be reused ?
    a) Ajax
    b) RSS generated syndication
    c) Semantic web

d) Web services

308. Which is not a characteristic of private cloud
    a) Secure
    b) Central control
    c) weak SLA
    d) scalable

309. Which instance of SaaS Provide users with an integrated system of office automation, records management, Migration, integration services with archiving, spam blocking, Malware protection & Compliance feature?
    a) Testing as a service
    b) Communication as a service
    c) Desktop as a service
    d) Email as a Service

310. Web 3.0 is also known as____ :
    a) Semantic Web
    b) Systematic Web
    c) Supportive Web
    d) Segmented Web

311. Which risk of BYOD involves 'Weak BYOD Policy' ?
    a) Network Risk
    b) Device Risk
    c) Implementation Risk
    d) Application Risk

312. Which component of web 2.0 allows reloading a part of webpage without reloading the whole page?
    a) Folksonomy
    b) Ajax
    c) Mash up
    d) RSS generated Syndication

313. Which is not the component of mobile computing?
    a) Communication
    b) Software
    c) Hardware
    d) Database

314. Which is not a benefit of mobile computing?
    a) Update workload status
    b) remote access of corporate database

c) improve management effectiveness

d) Provide better guidance for project

315. Which is not a limitation of Mobile Computing?
    a) Potential health hazards
    b) Transmission interferences
    c) Power Consumption
    d) Less Maintenance tools

316. Which components of Web 3.0 provides user a common framework that could be used to share & reuse the data across various application?
    a) Semantic Web
    b) Web Services
    c) Supportive Web
    d) Systematic Web

317. Allows servers and stogare devices to increasingly share and utilise applications by easy migration from one server to another.
    a) Virtualization
    b) Grid Computing
    c) Artificial Intelligence
    d) Web 3.0

318. Which type of cloud is the combination of two other clouds?
    a) Private
    b) Public
    c) Hybrid
    d) Community

319. Private Cloud is not known as :
    a) Internal cloud
    b) Corporate cloud
    c) Supportive Cloud
    d) None of these

320. A company is using Google Cloud Service for hosting its data / application. This use by the company of Google cloud can be classified as..
    a) Public Cloud
    b) Private Cloud
    c) Hybrid Cloud
    d) Community Cloud

321. SaaS model in cloud computing is a good example of..
    a) Custom Built Application

b) Leased Application
c) Packaged Software
d) Bought out Application

322. Under emerging BYOD (Bring your Own Device) Threats,_risk refers to the data ost from stolen or lost devices.
a) Network
b) Application
c) Device
d) Implementation

323. Which type of risk a company becomes vulnerable to when it adopts Bring Your Own Device (BYOD)?
a) Confidentiality Risk
b) Device Risk
c) Application Risk
d) Implementation Risk

324. Which components of Web 3.0 supports computer-to-computer interaction over internet.
a) Web Services
b) Supportive Web
c) Systematic Web
d) None of these

325. What is the full form of S.L.A.?
a) Service Level Agreement
b) Strong legal Agreement
c) Security layout Agreement
d) Simplified Lawful Agreement

326. Which has meaning that employees are welcomed to use their personal computer in an organization?
a) BYOD
b) Grid
c) Cloud
d) None of these

327. Which of the following is not a characteristics of Private Cloud?
a) Secured
b) Central Control
c) Scalable
d) Weak Service Level Agreements (SLAs)

328. Which of the following is not a Characteristics of Cloud Computing?

a) High Scalability
b) Virtualization
c) Multi-sharing
d) Interoperability

329. Which of the following is not a Components of Mobile Computing?
a) Mobile Communication
b) Mobile Hardware
c) BYOD
d) Mobile Software

330. Risk Emerge in BYOD are:-
a) Password leak Risk
b) Copy of information Risk
c) Network Risk
d) Virus Risk

331. Which one is not an application of Web 2.0?
a) Marketing
b) Social Media
c) Education
d) semantic web

332. Which of the following is a instances of SaaS?
a) Desktop as a Service (DTaaS)
b) Backend as a Service (BaaS)
c) Testing as a Service (TaaS)
d) Logistic as a service (LaaS)

333. Which of the following is a instances of IaaS?
a) Desktop as a Service (DTaaS)
b) Backup as a Service (BaaS)
c) Testing as a Service (TaaS)
d) Email as a service (EaaS)

334. Which of the following cloud offer data on demand to a diverse users, system , application?
a) Desktop as a Service (DTaaS)
b) Data as a Service (DaaS)
c) Testing as a Service (TaaS)
d) Logistic as a service (LaaS)

335. Which cloud offer service of moving cloud security features into cloud itself?
a) Communication as a Service (CaaS)
b) Security as a Service (SECaaS)

c) Identity as a Service (IDaaS)

d) Data as a Service (DaaS)

336. Which cloud have better scalability?
   a) Community cloud
   b) Hybrid cloud
   c) Both A and B
   d) None of these

337. Which of the following is Advantage of Community Clouds?
   a) sharing of maintenance among the organizations.
   b) Strict SLAs
   c) central control
   d) Highest level of security

338. Which is not a benefit of cloud computing?
   a) Streamline business processes
   b) Pervasive accessibility
   c) Economic of scale
   d) Program debugging

339. Which of the following is Advantage of Hybrid Cloud?
   a) better security than private cloud
   b) Highly scalable
   c) Strict SLAs are followed
   d) Complex management

340. which one is the most cost effective cloud to form
   a) Private cloud
   b) Public cloud
   c) Community cloud
   d) Hybrid cloud

341. Which cloud offer highest level of freedom to use cloud
   a) Private cloud
   b) Public cloud
   c) Community cloud
   d) Hybrid cloud

342. In Cloud Computing, which of the following instance of Software as a Service (SaaS) allows users to explore functionality of Web services such as Google Maps, Payroll Processing, and credit card processing services.
   a) API as a Service (APIaaS)
   b) Testing as a Service (TaaS)

    c) Email as a Service (EaaS)
    d) Data as a Service (DaaS)

343. Which cloud offer Highest level of security features?
    a) Private cloud
    b) Public cloud
    c) Community cloud
    d) Hybrid cloud

344. If a university sets up a web-based information system that faculty could access to record student grades and to advise students, that would be an example of a/an
    a) CRM
    b) Intranet
    c) ERP
    d) Extranet

345. What allow feeding of freshly published web content to the users
    a) Ajax
    b) RSS generated syndication
    c) Semantic web
    d) Web services

346. _____refers to the study and practice of environmentally sustainable computing or IT.
    a) Green computing
    b) Cloud Computing
    c) Grid Computing
    d) Mobile Computing

347. Which one is not a security issue of mobile computing
    a) Integrity
    b) Legitimate
    c) Accountability
    d) Insufficient bandwidth

348. Which one is not a limitation of mobile computing
    a) Power consumption
    b) Health hazards
    c) Business challenges
    d) Security standards

349. which is not a service of Iaas ?
    a) Compute
    b) Storage
    c) Network

d) Mail service

350. Which cloud is characterized of offering its service by way of offline access?
        a) Iaas
        b) Paas
        c) Saas
        d) Caas

351. Which one of the following is 'computing that allows continuous access to remote resources even
        with the physical mobility of small computing devices such as laptops'?
        a) Soft computing
        b) Mobile computing
        c) Remote computing
        d) Ubiquitous computing

352. How do you dispose of your old computers or electronic devices ?
        a) Throw them in the trash
        b) Always sold them away (never disposed of it yourself)
        c) Look for a recycling centre and dispose of it properly
        d) none of above

353. Which of the following is not a technique of Cryptography?
        a) Transposition
        b) Substitution
        c) Product Cipher
        d) Transcription

354. Which of the following is not a type of Data Resource Management Controls under managerial
        Controls?
        a) Existence Controls
        b) Concurrency Controls
        c) Production Controls
        d) Quality Controls

355. Which of the following does not fit into best practices while dealing with passwords in order to
        avoid system failures?
        a) Periodic change of passwords
        b) Unlimited number of entry attempts
        c) Minimum password length
        d) Hashing of passwords

356. In Cloud Computing, which of the following instance of Software as a Service (SaaS) allows users
        to explore functionality of Web services such as Google Maps, Payroll Processing, and credit card
        processing services.

a) API as a Service(APIaaS)
b) Testing as a Service(TaaS)
c) Email as a Service(EaaS)
d) Data as a Service(DaaS)

357. Which activity is not incorporated during audit of Environmental Controls?
a) Backup Power
b) Water Detection
c) Fire detection and Suppression
d) Guards and Dogs

358. As an Information Systems Auditor, mention the activity that does not form part of audit of Logical Access Controls?
a) Access Violations
b) Intrusion Detection and Prevention
c) Backup Power
d) Shared Accounts

359. Suggest the control required to address the concerns raised with the following risk - "As everybody is connected to a single system and central database, in case of failure of system, the whole business may come to stand still and may get affectedbadly."
a) This can be controlled and monitored by having proper and updated backup of data as well as alternate hardware/internet arrangements.
b) This can be controlled by removing redundant data, using techniques like data warehousing and updating hardware on a continuous basis.
c) Access rights need to be defined carefully and to be given on "Need to know" and "Need to do" basis only.
d) This can be controlled and minimized with the help of proper staff training system, having help manuals, having backup plans for staff turnover etc.

360. A Business Continuity Plan (BCP) is an example of_____
a) Managerial
b) Application
c) Preventive
d) Corrective

361. One amongst the list is a not a threat.
a) Virus
b) Trojan
c) Worm
d) Firewall

362. Which type of risk a company becomes vulnerable to when it adopts Bring Your Own Device (BYOD)?

a) Confidentiality Risk
b) Device Risk
c) Application Risk
d) Implementation Risk

363. Which of the following is a natural environmental threat?
a) War action and Bomb threats
b) Air conditioning failure
c) Earthquakes
d) Undesired activities in computer facilities such as smoking

364. Which of the following is not a characteristic of Logic Bombs?
a) This blows up on the occurrence of a logical event
b) These are programmed based on time
c) This checks whether a particular condition has been met to execute the logic code
d) These are very difficult to detect as its destructive information set is known only after it is executed

365. On what basis are access privileges assigned to a user?
a) Seniority level
b) Expertise and qualification
c) Job requirements and responsibilities
d) There is no basis. It is randomly assigned

366. In this strategy, implementation can be staged with conversion to the new system taking place gradually.
a) Phased Changeover
b) Direct Changeover
c) Pilot Changeover
d) Parallel Changeover

367. Why audit trials and logs important for Security Management?
a) To know where access attempts occurred and who attempted them
b) To reduce unauthorized access to sensitive information
c) To prevent modification or deletion of file content
d) To prevent unintentional physical access

368. Which of the following is not a biometric characteristic?
a) Finger prints
b) Retina scans
c) Passport photo
d) Palm scans

369. Who is responsible for defining security strategy and policies for an organisation?

a) Steering Committee
b) Information Owner
c) Security Manager
d) Information Custodian

370. What is a Denial-of-Service attack?
   a) An attempt to make a machine or network unavailable to its intended users.
   b) Unauthorized access to an organisation's internal network.
   c) Illegal copying of software.
   d) Creation of Internet Protocol (IP) packets with a forged source IP address

371. A bank has outsourced certain processes related to its personal loans unit to a third party vendor. As an IS auditor of the bank, what would you look for to assure yourself that non- public business information accessed by the third party vendor is protected and not misused?
   a) A non -disclosure agreement signed by the vendor
   b) Check if all employees of the vendor are given enough training
   c) Verify if there are instances of data being misused earlier
   d) Check for a written acknowledgement from the vendor that they have read and understood the company's policy

372. Under what information category does widely distributed product brochures fall?
   a) Top Secret
   b) Highly Confidential Information
   c) Public Information
   d) Proprietary

373. Under what category does information received from clients fall?
   a) Top Secret
   b) Highly Confidential Information
   c) Public Information
   d) Proprietary

374. Threats to Information Assets like computing equipment, media and people are known as:
   a) Cyber threats
   b) Environmental Threats
   c) Physical Threats
   d) Logical access threats

375. The policy which restricts the ways in which the network, website or system may be used by a user of an enterprise is termed as:
   a) Acceptable usage policy
   b) Physical Access and Security policy
   c) Asset Management Policy
   d) Business Continuity Management Policy

376. The characteristics of a strong password that protects information assets should be:
   a) Maximum 8 characters, case specific
   b) Minimum 8 characters, only alpha numeric
   c) Minimum 8 characters, only alphabets and easy to remember
   d) Minimum 8 characters, case specific and containing special characters

377. Standards, Guidelines and Procedures are the three elements of policy implementation. In what order should they be followed for proper implementation?
   a) Guidelines, Procedures and Standards
   b) Procedures, Standards and Guidelines
   c) Standards, Guidelines and Procedures
   d) Guidelines, Standards and Procedures

378. A data centre housing about 200 employees is involved in handling businesses processes of multinational companies. For security reasons, it decides to shift its network server and mail server to a secluded room with restricted entry. What kind of internal control is this?
   a) Manual Preventive Control
   b) Manual Detective Control
   c) Computerised Preventive Control
   d) Computerised Corrective Control

379. What are the three KEY objectives of Information Security Management?
   a) Compliance, Integrity and Availability
   b) Confidentiality, Information Security and Availability
   c) Confidentiality, Integrity and Availability
   d) Confidentiality, Integrity and Asset Management

380. The IS policy of an enterprise that talks about protecting non-public personal information from unauthorised use, corruption, disclosure and distribution is:
   a) Acceptable usage policy
   b) Data classification and Privacy Policy
   c) Physical Access policy
   d) Asset Management Policy

381. Under which type of control mechanism does taking a back up of everyday activity classify as?
   a) Detective Control
   b) Preventive control
   c) Corrective control
   d) Administrative Implementation of Control

382. Business application system/software is designed to support a specific organizational service, function or process, such as inventory management, payroll, market analysis or e- commerce. What is the goal of such a business application?
   a) To enhance the targets and goals of an organization

b) To deal with problems relating to business processes
c) To enhance quality of services
d) To turn data into information

383. Which of the following is the role of an IS Auditor in the detailed design phase of SDLC?
    a) Analyze the justification for going in for a development or acquisition
    b) Review input, processing and output controls
    c) Ensure that the documentation is complete
    d) Review QA report on adopting coding standards by developers.

384. Which of the following is the feature of a waterfall model?
    a) The designers create an initial base model and give little or no consideration to internal controls, but instead emphasize system characteristics such as simplicity, flexibility, and ease of use.
    b) Project is divided into sequential phases, with some overlap and splash back acceptable between phases.
    c) This is an iterative model where each iteration helps in optimizing the intended solution.
    d) This model of development helps to ease the traumatic effect of introducing completely new system all at once.

385. This model is especially useful for resolving unclear objectives and requirements; developing and validating user requirements; experimenting with or comparing various design solutions, or investigating both performance and the human computer interface.
    a) Waterfall model
    b) Prototyping model
    c) Spiral Model
    d) Incremental model

386. Which of the following is a weakness of the spiral model?
    a) It is criticized to be Inflexible, slow, costly, and cumbersome due to significant structure and tight controls.
    b) Approval process and control are not formal.
    c) Sometimes there are no firm deadlines, cycles continue till requirements are clearly identified.
    d) Problems may arise pertaining to system architecture because not all requirements are gathered up front for the entire software life cycle.

387. Which of the following is a KEY feature of Rapid Application Development?
    a) fast development and delivery of a high quality system at a relatively low investment cost,
    b) Use of small, time-boxed subprojects or iterations where each iteration forms basis for planning next iteration.
    c) Customer satisfaction by rapid delivery of useful software;
    d) Welcome changing requirements, even late in development

388. Which of the following is the weakness of the Agile Software development methodology?

a) Fast speed and lower cost may affect adversely the system quality.

b) The project may end up with more requirements than needed (gold-plating).

c) Potential for feature creep where more and more features are added to the system during development.

d) There is lack of emphasis on necessary designing and documentation due to time management and generally is left out orincomplete

389. In achieving the objectives of requirement analysis, the process of understanding the present system requires which technique?

a) Fact finding technique

b) Inquiry

c) Inspection

d) Analytical Procedure.

390. The Business Information System used for handling structured problems as also doing routine transactional jobs is ___

a) Transaction Processing System or TPS

b) Decision Support System or DSS

c) Executive Support System or ESS

d) Structured Query Language or SQL.

391. The Business Information System which provides answers to semi-structured problems and used for handling structured problems is _____

a) Structured Query Language or SQL

b) Transaction Processing System or TPS

c) Decision Support System or DSS

d) Executive Support System or ESS

392. The Business Information System which provides answers to un-structured problems & supports Executive management in planning strategy & vision is__

a) Structured Query Language or SQL

b) Executive Information System or EIS

c) Transaction Processing System or TPS

d) Decision Support System or DSS

393. An Expert System ____

a) Is a software that supersedes the operation of other software

b) Is a panel of software experts who are consulted for solving security threats

c) Is a computer hardware that manages other hardware in a computer system

d) Is a software that comprises specialized human knowledge in a specific, narrow domain

394. You have received an alert about the due date for payment of your postpaid mobile phone charges. You log on to the service provider's website and attempt to transfer the payment through net banking. However, while you were able to complete the formalities involved at your

bank's portal, the system hangs later on and a message is flashed saying that there is a problem with the service provider's system & asking users to try later. This is an issue with the service provider's _____

a) Transaction Processing System
b) Expert systems
c) Executive Information System or EIS
d) Decision Support System or DSS

395. A KEY differentiator for a Decision Support System over a Transaction Processing System is _____
a) It can handle large amounts of data in batch as well as online mode
b) It is more interactive & model-driven, performing mathematical & qualitative analysis
c) It has a larger database as compared to the transaction processing system
d) It can more reliably handle large volume of information relating to transaction

396. One of the initiatives in Green Information Technology implementation could be_____
a) Using single power efficient server combined with virtualization
b) Avoiding replacement of old equipment with new ones
c) Replacing a single server system with multiple servers
d) Moving back storage & processing capacity from the cloud

397. Effective Green Information Technology implementation could involve_____
a) Replacing a single server system with multiple servers
b) Avoiding replacement of old equipment with new ones
c) Using power efficient hardware & thin clients
d) Moving back storage & processing capacity from the cloud

398. An accountant changes the voucher dates in TALLY without proper authority and sanction by management. This act by accountant shall be best classified as breach of which key principle?
a) Integrity
b) Confidentiality
c) Availability
d) Confidentiality, Availability and Integrity.

399. TALLY accounting software gives a warning when cash balance may turn negative on updating a voucher. This is good example of .
a) Compensatory Control
b) Detective Control
c) Corrective Control
d) Preventive Control

400. Security guard at an ATM is an example of .
a) Compensatory Control, Logical Control
b) Detective Control, Physical Control
c) Preventive Control, Physical
d) Corrective Control, Logical Control

Answers -

1	d	21	d	41	a	61	d	81	c
2	d	22	d	42	b	62	d	82	a
3	d	23	d	43	a	63	b	83	c
4	d	24	d	44	d	64	c	84	c
5	d	25	a	45	d	65	c	85	a
6	b	26	a	46	c	66	c	86	d
7	d	27	c	47	a	67	a	87	c
8	c	28	b	48	b	68	b	88	a
9	c	29	a	49	c	69	b	89	d
10	a	30	b	50	b	70	b	90	a
11	c	31	a	51	d	71	a	91	c
12	d	32	d	52	a	72	a	92	b
13	d	33	d	53	B	73	c	93	a
14	b	34	c	54	c	74	c	94	c
15	c	35	b	55	c	75	b	95	c
16	c	36	c	56	c	76	c	96	d
17	B	37	c	57	d	77	a	97	b
18	D	38	c	58	d	78	c	98	d
19	b	39	a	59	a	79	c	99	b
20	a	40	a	60	a	80	a	100	c

101	a	121	b	141	c	161	c	181	c
102	c	122	d	142	b	162	d	182	d
103	d	123	d	143	d	163	d	183	d
104	d	124	c	144	b	164	c	184	b
105	c	125	a	145	c	165	d	185	c
106	c	126	d	146	b	166	c	186	c
107	b	127	a	147	c	167	d	187	a
108	c	128	c	148	d	168	c	188	b
109	b	129	a	149	a	169	b	189	d
110	c	130	d	150	d	170	a	190	c
111	d	131	c	151	b	171	a	191	b
112	b	132	b	152	b	172	c	192	d
113	d	133	d	153	d	173	a	193	a
114	d	134	c	154	a	174	c	194	d
115	b	135	b	155	c	175	c	195	d
116	d	136	c	156	a	176	a	196	c
117	b	137	d	157	d	177	c	197	a
118	d	138	b	158	c	178	a	198	a
119	a	139	c	159	c	179	c	199	d
120	d	140	c	160	b	180	b	200	d

201	d	221	d	241	c	261	c	281	b
202	b	222	d	242	a	262	d	282	d
203	d	223	a	243	c	263	a	283	a
204	b	224	d	244	c	264	d	284	a
205	c	225	b	245	d	265	c	285	b
206	b	226	a	246	a	266	d	286	b
207	d	227	d	247	b	267	a	287	a
208	a	228	c	248	c	268	d	288	b
209	d	229	c	249	b	269	c	289	b
210	b	230	c	250	a	270	b	290	a
211	d	231	d	251	b	271	c	291	b
212	d	232	c	252	a	272	d	292	b
213	a	233	b	253	c	273	d	293	a
214	a	234	d	254	c	274	a	294	c
215	b	235	c	255	d	275	a	295	a
216	d	236	d	256	a	276	d	296	c
217	b	237	c	257	c	277	a	297	c
218	b	238	b	258	d	278	a	298	b
219	c	239	c	259	a	279	b	299	d
220	b	240	d	260	c	280	d	300	c

301	a	321	b	341	a	361	d	381	c
302	d	322	c	342	a	362	a	382	d
303	c	323	a	343	a	363	c	383	a
304	d	324	a	344	b	364	b	384	b
305	b	325	a	345	b	365	c	385	b
306	c	326	a	346	a	366	a	386	c
307	c	327	c	347	d	367	a	387	a
308	d	328	d	348	c	368	c	388	d
309	d	329	c	349	d	369	c	389	a
310	a	330	c	350	b	370	a	390	a
311	c	331	d	351	b	371	a	391	c
312	b	332	c	352	c	372	c	392	b
313	d	333	a	353	d	373	b	393	d
314	d	334	b	354	c	374	c	394	a
315	d	335	b	355	b	375	a	395	b
316	a	336	b	356	a	376	d	396	a
317	a	337	a	357	d	377	c	397	c
318	c	338	d	358	c	378	a	398	a
319	c	339	b	359	a	379	c	399	d
320	a	340	c	360	d	380	b	400	c