

**12.1 Control in design of an information system is used to**

- a. inspect the system and check that it is built as per specifications
- b. protect data from accidental or intentional loss
- c. ensure that the system processes data as it was designed to and that the results are reliable
- d. ensure privacy of data processed by it

**12.2 Controls are necessary in information systems as**

- (i) massive amounts of data are processed and human errors are expected in data entry
  - (ii) accidental errors can lead to loss of money and credibility in a system
  - (iii) to protect the system from virus attack
  - (iv) data may be lost due to disk crashes
- a. i and ii
  - b. i and iii
  - c. i and iv
  - d. ii and iii

**12.3 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) automatically correct errors in data entry/processing
- a. i, ii and iv
  - b. i, ii, iii and iv
  - c. i, ii and iii
  - d. i and iii

**12.4 Organizational measures in control mean**

- a. a set of well organized methods
- b. assignment of appropriate responsibilities to individuals in data processing in an organization
- c. proper organization of data

- d. creation of an organization for controlling system

**12.5 Proof figures are used to check**

- (i) arithmetic errors in processing
- (ii) data entry errors in processing
- (iii) loop errors in program
- (iv) proof of program correctness

- a. i and ii
- b. i and iii
- c. ii and iv
- d. iii and iv

**12.6 A proof figure is**

- a. a figure used to prove the correctness of data entry
- b. an additional data entered with each record to facilitate detection of arithmetic error
- c. a number used during data entry
- d. a modulus-11 check digit

**12.7 A two way check**

- a. calculates the same quantity in two different ways and compares them for equality
- b. calculates the quantities and compares them for equality
- c. checks a data item in two different ways
- d. enters data two times and cross-checks them

**12.8 A two-way check is used to**

- (i) check program correctness
- (ii) find data entry errors
- (iii) find multiplication errors
- (iv) find arithmetic error in processing

- a. i and ii
- b. ii and iii
- c. ii and iv
- d. i and iv

**12.9 A relationship check**

- a. is concerned with checking a relation
- b. uses an entity-relationship model for checking
- c. finds out if a relationship is satisfied in computation
- d. uses the fact that a known relationship exists between two data elements and checks if it is satisfied during computation

**12.10 A check-point procedure**

- a. checks program correctness at certain points
- b. divides a program into smaller parts
- c. breaks a programs into portions at the end of each of which a check point program is executed
- d. finds points in a program where it is convenient to check it

**12.11 At each check-point**

- (i)quantities such as control totals and proof figures are checked for correctness
  - (ii)process state is stored in secondary storage
  - (iii)a program halts for check by programmers
  - (iv)a self-checking system is invoked by the analyst
- a. i and iv
  - b. ii and iii
  - c. i and ii
  - d. i and iii

**12.12 Audit in the design of information system is used to**

- a. inspect the system and check that it is built as per specifications
- b. protect data from accidental or intentional loss
- c. ensure that the system processes data as it was designed to and that the results are reliable
- d. ensure privacy of data processed by it

**12.13 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

**12.14 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 har

**12.15 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

**12.16 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

**12.17 An audit trail is established in a system to**

- a. detect errors in a system
- b. enable auditing of a system
- c. localize the source of an error in a system
- d. trail a program

**12.18 Some audit and control procedures in a system**

(i)detect and correct errors in programs

(ii)selectively print records in a system which meet certain criteria

(iii)examine credit and debit balances in an accounting system and check if they balance

(iv)provide a facility to trace a variable value through processing steps and print intermediate values when required

- a. i and ii
- b. ii and iii
- c. i, ii, iii
- d. ii, iii, iv

**12.19 It is advisable for an auditor to require an operational information system to**

(i)keep logs of all system runs and people involved

(ii)ensure that the programs and system operation are well documented

(iii)ensure that no changes are allowed

(iv)ensure that the inputs and batch controls are properly designed

- a. i, ii, iii
- b. ii, iii, iv
- c. i, ii, iv
- d. i, ii

**12.20 In auditing with a computer**

- a. auditing programs are designed and used to check a system
- b. the hardware of the computer is thoroughly checked for malfunctions
- c. system software is thoroughly checked to ensure error free operations
- d. auditors check system with a computer

**12.21 Some of the features of audit package used to check systems are:**

(i)facility to total specified items based on some criteria

(ii) extracting items based on some criteria for checking

(iii)check-pointing and restart facility

(iv) Hardware faults recovery

- a. i, ii
- b. i, ii, iii
- c. i, ii, iii, iv
- d. i, ii, iv

**12.22 By information system testing we mean**

- a. testing an information system correctly
- b. determining whether a system is performing as per specifications
- c. determining whether a system is performing optimally
- d. ensuring proper function of a system

**12.23 The main objectives of testing are**

- (i) when correct inputs are fed to the system the outputs are correct
- (ii) when incorrect inputs are fed to the system they are detected and rejected
- (iii) the requirement specifications are correct
- (iv) verify that the controls incorporated in the system function correctly

- a. i, ii
- b. i, ii, iii
- c. i, ii, iii, iv
- d. i, ii, iv

**12.24 The scope of the system test includes**

- a. both computerized and manual procedures
- b. only test of computer procedures
- c. computerized procedures, manual procedures, computer operations and controls
- d. mainly computerized procedures and operations controls

**12.25 Program tests use test data to**

- (i) exercise all paths taken by a program
- (ii) test loop counters

(iii) test with values which change state of logical variables

(iv) comprehensively exercise program

- a. i, ii
- b. i, ii, iii
- c. i, ii, iii, iv
- d. i, ii, iv

**12.26 By string test we mean**

- a. a test which tests operations with strings
- b. a string of tests on programs
- c. Test on related programs
- d. The output of a program is sent as input to related program(s) to see if data is transferred correctly

**12.27 Parallel runs are used**

- a. during regular operation of an information system
- b. when a system is initially implemented
- c. whenever errors are found in a computerized system
- d. whenever management insists

**12.28 The purpose of parallel run is to**

- a. to see whether outputs of a newly computerized system matches those of currently running manual or legacy system
- b. have redundancy for reliability
- c. test an operational information system
- d. test a system being newly designed

**12.29 Security in the design of information system is used to**

- a. inspect the system and check that it is built as per the specifications
- b. protect data and programs from accidental or intentional loss
- c. ensure that the system processes data as it was designed to and that the results are reliable
- d. ensure privacy of data processed by it

**12.30 By security of an information system we mean protecting**

(i) data from accidental or intentional damage or loss

- (ii)programs from accidental or intentional corruption or loss
- (iii)programs and data from unauthorized disclosure or change
- (iv)individual private data from disclosure

- a. i and ii
- b. i and iii
- c. i, ii, iii
- d. i, ii, iii, iv

**12.31 It is necessary to protect information system from the following**

- (i)natural disasters like fire, floods etc
- (ii)disgruntled employees
- (iii)poorly trained employees
- (iv)hackers
- (v)industrial spies
- (vi)data entry operators

- a. ii, iii, iv, v
- b. i, ii, iii, iv, v
- c. i, iv, v
- d. i, ii, iii, iv, v, vi

**12.32 The following measures are taken to ensure security of information systems:**

- (i)duplicate copies of data/programs are kept in a different place preferably in fire-proof vault
- (ii)password protection is used to prevent unauthorized access
- (iii)no one is allowed to alter data in the database
- (iv)no one is allowed alter programs

- a. i and ii
- b. i, ii, iii
- c. ii, iii, iv
- d. iii and iv

**12.33 Some security measures commonly used are**

- (i)data encryption



(ii) logging of all accesses to an information system and recording changes made (if any)

(iii) data compression

(iv) copying of files

- a. ii and iii
- b. i and iii
- c. i and ii
- d. ii and iv

**12.34 To protect a system from viruses one should**

(i) not allow unauthorized use of floppy disks

(ii) scan viruses in files received via a network or floppies

(iii) isolate a system from networks

(iv) install a roll-back recovery program in the system

- a. i and iii
- b. i and ii
- c. ii and iv
- d. i, iii, iv

**12.35 A firewall is used in a system connected to a wide area network to**

- a. prevent spread of fire in the network
- b. prevent unauthorized access by hackers
- c. to scan for viruses in files
- d. to extinguish fire spreading via network cables

## Key to Objective Questions

12.1 c	12.2a	12.3	c	12.4	c	12.5	a	12.6	b
12.7 a	12.8 c	12.9 d	12.10 c	12.11 c	12.12 a				
12.13 d	12.14 a	12.15 c	12.16 b	12.17 c	12.18 d				
12.19 c	12.22 a	12.21 b	12.22 b	12.23 d	12.24 c				
12.25 b	12.26 d	12.27 b	12.28 a	12.29 b	12.30 c				
12.31 d	12.32 a	12.33 c	12.34 b	12.35 b					