



The Institute of Chartered Accountants of India

Code: 374857
Subject : ENTERPRISE INFORMATION SYSTEMS

Total Marks: 35
Marks Obtained : 23

Subject : IT
 Number of Answer Books used : Main + additional sheets

For use by ICAI only

374857

16 NOV 2019



ICAI

Q.No.	To be ticked (✓) by the candidate against the Questions answered	Marks Awarded (To be filled by Examiner)					Total
		a	b	c	d	e	
1							
2							
3							
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Total							



Use only Blue / Black Ball Point Pen to write and shade the circles.
AVOID RED PEN.
 Write the marks in the boxes before shading the respective circles.

Total Marks awarded

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

Total Marks awarded (in words) _____

Examiner's Signature _____



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INSTRUCTIONS TO THE CANDIDATE

Answers are not to be written on this page

1. Roll number should be written in figures and words in the allotted space at the right hand corner of the answer sheet only and nowhere else including additional answer book/s and graph paper.
2. Roll number should be written in the box in numbers and darken the appropriate circles of the OMR portion provided in the right hand corner of the cover page with **Black / Blue** ball point pen.
3. Fill particulars such as name of Examination, Paper No. and subject at the appropriate space at the left hand upper corner.
4. Remove the Bar Code sticker of the particular paper from the Attendance sheet and affix the same on the box provided in the right hand corner of the cover page.
5. Since a machine will read the Roll no., please check and ensure that Roll number written in numbers, words and circles darkened are correct. In case any candidate fills this information wrongly, Institute will not take any responsibility for rectifying the mistake.
6. The answers should be written neatly and legibly.
7. The answer to each question must be commenced on a fresh page and question number prominently written at the top of each answer. Alternatively, the question number should be distinctly written in the margin.
8. The answer to each question in all parts should be fully completed in one page or in a consecutive set of pages, before the next question is taken up.
9. The candidates are required to write answers of Section A in the answer booklet with the marking (A) on the cover page and answers of Section B in the answer booklet with the marking (B) on the cover page. In case a candidate writes the answers in wrong set of answer books the same will not be valued and no correspondence in this regard will be entertained.
10. Writing of Roll number in place/s other than the space provided for the purpose or writing distinguishing mark, symbols like "OM", "Sri", "Jesus", "786", etc., will tantamount to adoption of "unfair means"
11. Before submission of answer book to the invigilator take care to score out (X) blank pages, if any, that you might have left.



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5 Q5

3



4 5a

ANSWER TO Q.5 A]

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4 Step1

Money laundering is the process by which the proceedes of the crime and true ownership of the proceeds are concealed or made opaque, to make it appear from a legitimate source. The main objective of money laundering is to hide illegal source and illegal application of money. It is used for converting dirty money into clean money.

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Following are the stages of Money Laundering:

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Placement: The first stage involves the placement of the illegal proceeds - ^{movement of} usually currency to a place and in a form that is convenient for the criminal.

Layering: This stage involves the separation of proceeds from illegal source. Launderers often use offshore



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bank accounts and countries with loose regulations to launder money.

This involves movement ~~from one bank~~ by way of continuous bank to bank transfers, wire transfer to change the amounts, bank accounts, currency in which the money is stored and acquisition of high value assets such as yachts, houses.

Integration: This involves establishing a legitimate source for criminally derived funds. It creates an illusion that ~~criminal~~ criminal funds have been derived from some legitimate source of income and involves techniques as creative as used by businesses such as commercial and financial transaction by way of export sales, loaning funds outside India.

NOTE: Purchasing of high value assets is actually a stage of integration however, is shown as a part of layering in module.

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The Institute of Chartered Accountants of India

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5

Answer to Q.5 B]

Role based access control is an approach to restrict system access to authorized user.

It is used to restrict access in many organisations and can implement mandatory or discretionary access control.

It is often known as role based security and is a policy neutral access mechanism, defined around roles and responsibilities.

The components of RBAC such as role-~~mode~~, role-permission and user-role relationship facilitate implementation of security in an organisation with hundreds of positions and thousands permission. Role for a user are designed and access is given on the basis of roles.

Following types of access can be given:

- Print: User can print data
- View: User can only view data
- Delete: User can delete data
- Alter: User can edit/alter the data.



The Institute of Chartered Accountants of India

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8

Q3

6

4.5

3a

ANSWER TO Q.3 A]

Following are the Network Access Controls:

4.5

Step1

• FIREWALL: Firewall enforces network access control between the organisations intranet and the outside network. All the access must pass through this and it will allow only the authorized actions to pass. It must be impenetrable to access both from outside and inside the network.

• Encryption: This is the conversion of data into secret text called cryptograms for storage in database or transmission. The user uses an encryption algorithm along with a key to encrypt the data. The user may use a private or public key.

• Enforced Path: Based on risk assessment a fixed path or route must be established for network access, for example employees network access shall pass through a ~~proxy~~ ^{proxy} and firewall.



The Institute of Chartered Accountants of India

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7



• Call back Devices: These are based on the principle that a network must be protected from access from unauthorized users before they enter the system.

The user enters user ID and password and the system breaks the connection, the system calls the user and if user is authorized the system establishes a new connection, this prevents an unauthorized user, who masquerades as an authentic user from securing access.

• Policy for network access: An enterprise wide policy for network access and use is the first step. It involves selection of an appropriate policy relating to the requirements and access rights to use the network.

• Segregation of duties in network: System enforced SOD controls must be established to ensure the SOD conflicts do not exist.



The Institute of Chartered Accountants of India

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8

~~Answer to Q. 3 B]~~

Following are the risks associated with the BYOD Program:

- Implementation Risks: Effective implementation of the BYOD program should not only cover the technical risks addressed, but also mandate development of a robust implementation policy.

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9

ANSWER TO Q. 3B]

3.5 3b

3.5 Step1

Following risks are associated with BYOD:

i) Implementation risks: It is normally exemplified and hidden in "weak BYOD policy". Effective implementation of the policy should not only cover the technical issues addressed, but also mandate the development of robust implementation policy.

As a weak BYOD policy fails to communicate employee expectations and educate the user, thereby increasing vulnerability to risks.

ii) Network Risks: It is normally exemplified and hidden in "Lack of Device Visibility". When organization provided devices are used then the IT department shall have full visibility of all devices connected to the network, helping in analyzing data exchange.

P.T.O.



The Institute of Chartered Accountants of India

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Total Marks: 35
Marks Obtained: 23

10



However, they shall not be aware of all devices connected when employee owned devices are used. As visibility is of importance, the lack of visibility could be disastrous.

iii) Device Risks: It is normally exemplified and hidden in "Lost or Stolen device". As devices contain key corporate data, it could lead to reputational or financial embarrassment to the organisation.

With easy access to corporate intranet and company data any person can secure the data.

iv) Application Risk: Most of the employee devices connected to the corporate network were not secured by security software.

With increased used of devices there has been a concurrent increase in risk. It is not clearly established whether the employee or organisation is responsible for device security.

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The Institute of Chartered Accountants of India

Code: 374857
Subject: ENTERPRISE INFORMATION SYSTEMS

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11



6.5

Q2

ANSWER TO Q. 2 A]

3.5

2a

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3.5

Step1

Following advantages can be derived from use of flowcharts:

i) Communication: Flowcharts facilitate communication of the problems of the business process to the person whose skills are required to arrive at the solution.

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ii) Documentation: Flowcharts are an effective tool of documentation for future program conversion. This can also be used for training staff as they can easily understand the process by use of flowcharts.

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iii) Effective Analysis: Flowcharts serve as a blue print of the ^{business} system process and are helpful in analysing its different aspects. New problems can be identified and solutions can be suggested.



The Institute of Chartered Accountants of India

Code: 374857
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12



iv) Efficient Coding : Flowcharts serve as a guide in the program preparation phase, the system can be compared against flowchart to identify any gaps.

v) Error Identification : Errors in the business process can be easily identified by the application of flowcharts.

vi) Quicker Grasp of Relationships : Relationship between various aspects of the business must be understood, flowcharts can be immensivly useful in this regard as against often procedures.

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The Institute of Chartered Accountants of India

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13



3

2b

Answer to Q.2 B]

3

Step1

Following are examples of SOD controls:

• Split custody of high value assets:

The high value or worth assets can be in the custody of two or more personnel of the entity. For example: an access key for a high value asset may be kept in two parts, one part with two personnel and another part with two other personnel, so that a single personnel cannot secure access.

• Periodic Review: A periodic review may be conducted by internal audit personnel to identify any SOD conflicts. Access rights can be compared against SOD matrix.

• Transaction Authorization: High value or significant transactions may be authorized by senior personnel. This is often observed in retail organisations when a manager authorizes material value transactions.



The Institute of Chartered Accountants of India

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14



• Workflow : Workflow enabled applications must have two or even three level authorization to perform the functions.

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3.5	Q1	15	
1.5	1a	Answer to Q.1 A]	
1.5	Step1	Following are the functions of RBI.	
<input type="checkbox"/>	i) <u>Issue of Currency</u> : RBI has the authority to issue currency other than coins and control their circulation in the economy.		
<input type="checkbox"/>	ii) <u>Control of monetary policy</u> : Monetary policy relates to the amount of money in circulation, RBI is the sole authority that can implement and control the monetary policy of the nation.		
<input type="checkbox"/>	iii) <u>Lender of last resort</u> : Bank Central Bank, being the apex bank in the country, exercises control over commercial banks and acts a lender of the last resort in cases of financial difficulties. P.T.O.		



The Institute of Chartered Accountants of India

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16



2 1b

Answer to Q1-B]

2 Step1

Following are the risks involved in BPA:

- Data: Master and Transaction data may be changed by unauthorized personnel due to weak access control.
- Input and Access: All Input data may not be authorized, accurate or complete.
- Processing: All valid data may not be completely and accurately processed due to program errors and bugs.
- Output: Output may not be accurate and complete and may be distributed to unauthorized personnel due to weak access control.

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17



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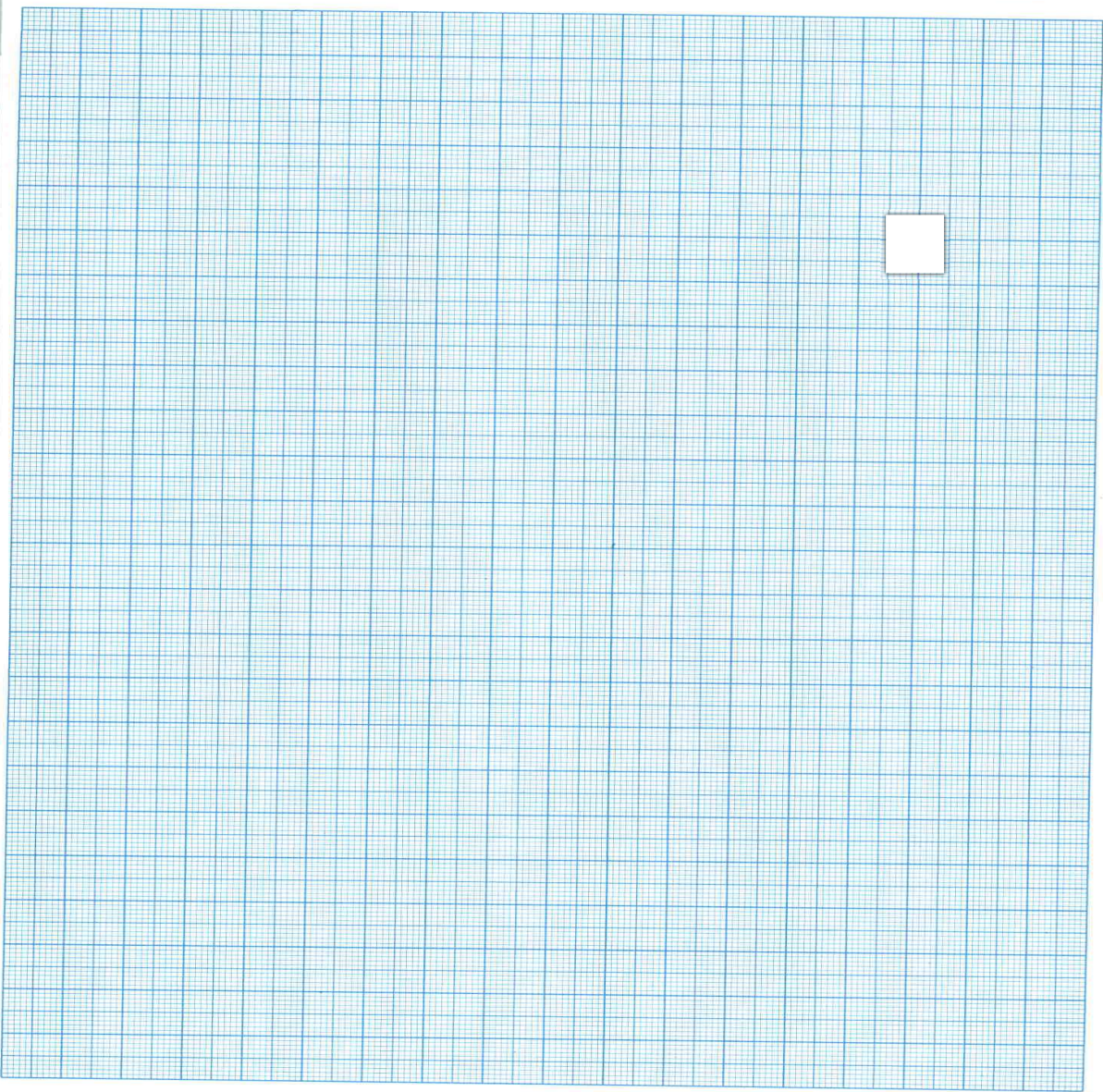



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19



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Result Overview

Score:
23/35

NA Not Attempted

○ Optional

M Marked

Q1 Compulsory (Score: 3.5/5)

Question No	Score	Status
Q1	3.5/5	M
1a	1.5/3	M
1b	2/2	M

Q2_Q5 (Score: 19.5/30)

Question No	Score	Status
Q2	6.5/10	M
2a	3.5/6	M
2b	3/4	M
Q3	8/10	M
3a	4.5/6	M
3b	3.5/4	M
Q4	0/10	○
4a	0/6	○
4b	0/4	○
Q5	5/10	M
5a	4/6	M
5bi	NA/2	NA
5bii	1/2	M