

University of Mumbai
Examination June 2021

Examinations Commencing from 1st June 2021

Program: Information Technology

Curriculum Scheme: Rev 2016

Examination: TE Semester VI

Course Code: ITC601 and Course Name: Software Engineering with Project Management
Time: 2 hour Max. Marks: 80

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Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Which model combines linear and parallel flow?
Option A:	Waterfall
Option B:	Incremental
Option C:	Spiral
Option D:	Prototyping
2.	Which type of components will you use if Existing specifications, designs, code developed for past projects are similar to the software to be built for the current project
Option A:	Full-experience
Option B:	OTS
Option C:	Partial-experience
Option D:	New components
3.	With reference to Software Design Classes: _____ provide refinements of analysis classes
Option A:	User interface classes
Option B:	Business domain classes
Option C:	Process classes
Option D:	System classes

4.	A specification or product that has been formally reviewed and agreed upon, that thereafter serves as the basis for further development, and that can be changed only through formal change control procedures is called _____ .
Option A:	Software configuration item
Option B:	Baseline
Option C:	Software configuration model
Option D:	SCM process
5.	Which is not content of RFP?
Option A:	Statement of Work and Proposal Requirements
Option B:	Contractual Provisions
Option C:	Technical Information or Data
Option D:	Time line chart
6.	Project-Oriented Scope create
Option A:	Deliverable definition table
Option B:	Decision structure chart
Option C:	PERT chart
Option D:	Gantt chart
7.	As per revised PMI guidelines WBS should be
Option A:	Fixed
Option B:	Flexible
Option C:	Temporary
Option D:	not a part of Project Management.
8.	DSC stands for
Option A:	Decision structure chart
Option B:	Data structure chart
Option C:	Deliverable structure chart

Option D:	Design structure chart
9.	The prototyping model of software development is useful in which situation?
Option A:	Useful when requirements are not clear
Option B:	Useful when requirements are well defined
Option C:	Useful when projects with large development teams
Option D:	Useful when risk involves
10.	The “meta-questions” proposed by Gause and Weinberg refers to the questions which focuses on
Option A:	Customer and other stakeholders
Option B:	Effectiveness of the communication activity itself
Option C:	Customers perceptions about solution
Option D:	Meta model
11.	Information Hiding does NOT
Option A:	reduce the likelihood of “side effects”
Option B:	limit the global impact of local design decisions
Option C:	emphasize communication through controlled interfaces
Option D:	encourage the use of global data
12.	The set of activities that have been developed to manage change throughout the life cycle of computer software are _____.
Option A:	Software maintenance management
Option B:	Software configuration management
Option C:	Software testing
Option D:	Software life cycle management
13.	Sequence of scope management process is
Option A:	Scope initiation, planning, definition, verification and change control

Option B:	Scope verification, initiation, planning, definition and change control
Option C:	Scope planning, definition, verification, change control and planning
Option D:	Scope change control, verification, initiation, planning and definition
14.	WBS includes
Option A:	Only deliverables
Option B:	Only milestones
Option C:	Only executables
Option D:	Both deliverables and milestone
15.	Refactoring refers to _____
Option A:	Modification to internal design
Option B:	Pair Programming
Option C:	Encapsulation
Option D:	Component reusability
16.	Calculate the function point (FP) for the given information domain. Number of External Inputs (EI):15, Number of External Outputs (EO):12, Number of external inquiries (EQ):17, Number of internal files (ILF):6, Number of external interfaces (EIF):3. Assume the weighting factor to be average (4, 5, 4, 10, 7). The value adjustment factor is 46.
Option A:	399
Option B:	199
Option C:	299
Option D:	200
17.	When software is refactored, the existing design is examined for 1) redundancy 2) unused design elements 3) inefficient or unnecessary algorithms
Option A:	Only 1 is correct
Option B:	Only 1 and 3 are correct
Option C:	Only 1 and 2 are correct

Option D:	All 1,2 and 3 are correct
18.	In unit testing, if called/child module is not ready, dummy module will acts as called/child module, what is the name given to dummy module in unit testing?
Option A:	Stub
Option B:	Driver
Option C:	Sample module
Option D:	Reference module
19.	Project Charter is
Option A:	The deliverable for the second phase of the IT project methodology
Option B:	The deliverable for the first phase of the IT project methodology
Option C:	The deliverable for the third phase of the IT project methodology
Option D:	The deliverable for the fourth phase of the IT project methodology
20.	In AOA
Option A:	arrow represent activity and node represent event
Option B:	arrow represent event and node represent activity
Option C:	arrow represent dependency and node represent event
Option D:	arrow represent flow and node represent estimate

Q2.		(20 Marks)
A	Attempt any two from following.	(5 marks each)
i.	Write a short note on Aspect Oriented Software Development.	
ii.	Comment on Collaborative Requirement Gathering process.	
iii.	Describe in brief Call and Return software architecture.	
B	Solve any One	(10 marks each)
i.	Explain how and why the analysis model is translated into design model.	
ii.	Describe in detail the process of developing a business case.	

Q3.	(20 Marks)																																																							
A	Attempt any two from following. (5 marks each)																																																							
i.	Enlist and explain in brief Characteristics of Testability of a software.																																																							
ii.	Describe how a project life cycle is associated to software development life cycle.																																																							
iii.	Comment on RMMM planning.																																																							
B	Solve any One (10 marks each)																																																							
i.	Explain how function points may be used for estimating cost and efforts required for a project.																																																							
ii.	For the following table calculate expected duration of each activity and find the critical path. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><i>Activity</i></th> <th style="text-align: left;"><i>Predecessor</i></th> <th style="text-align: center;"><i>Optimistic Estimates (Days) a</i></th> <th style="text-align: center;"><i>Most Likely Estimates (Days) b</i></th> <th style="text-align: center;"><i>Pessimistic Estimates (Days) c</i></th> </tr> </thead> <tbody> <tr><td>A</td><td>None</td><td>1</td><td>2</td><td>4</td></tr> <tr><td>B</td><td>A</td><td>3</td><td>5</td><td>8</td></tr> <tr><td>C</td><td>B</td><td>2</td><td>4</td><td>5</td></tr> <tr><td>D</td><td>B</td><td>2</td><td>3</td><td>6</td></tr> <tr><td>E</td><td>B</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>F</td><td>C, D</td><td>2</td><td>4</td><td>6</td></tr> <tr><td>G</td><td>D, E</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>H</td><td>F, G</td><td>1</td><td>2</td><td>5</td></tr> <tr><td>I</td><td>G</td><td>4</td><td>5</td><td>9</td></tr> <tr><td>J</td><td>H, I</td><td>.5</td><td>1</td><td>3</td></tr> </tbody> </table>	<i>Activity</i>	<i>Predecessor</i>	<i>Optimistic Estimates (Days) a</i>	<i>Most Likely Estimates (Days) b</i>	<i>Pessimistic Estimates (Days) c</i>	A	None	1	2	4	B	A	3	5	8	C	B	2	4	5	D	B	2	3	6	E	B	1	1	1	F	C, D	2	4	6	G	D, E	2	3	4	H	F, G	1	2	5	I	G	4	5	9	J	H, I	.5	1	3
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Examination June 2021

Program: Information Technology

Curriculum Scheme: Rev 2016

Examination: Third Year Semester VI

Course Code: ITC602

and Course Name: Data Mining and Business Intelligence

Time: 2-hour

Max. Marks: 80

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Q1.	Which of the following is the data mining task?
Option A:	Registering for an online course
Option B:	online money payment through a bank
Option C:	predicting if a student will pass an online course
Option D:	downloading the course certificate from the website
Q2.	Which of the following is not a preprocessing task?
Option A:	Data cleaning
Option B:	Data reduction
Option C:	Data integration
Option D:	Data manipulation
Q3.	Which is not a Data visualization technique?
Option A:	Pictures
Option B:	Graphs
Option C:	charts
Option D:	information graphics
Q4.	Which of the following is NOT example of ordinal attributes?
Option A:	Zip codes
Option B:	Ordered numbers
Option C:	Movie ratings
Option D:	Military ranks
Q5.	Calculate the median {1,2,2,2,3,4,5,6,7,8,9,9}
Option A:	2
Option B:	4
Option C:	8
Option D:	4.5
Q6.	Use smoothing by bin means to smooth (25,32,33)
Option A:	30,30,30
Option B:	32,32,32
Option C:	33,33,33
Option D:	25,25,25
Q7.	The _____ are the attributes of interest describing the tuple in Linear regression
Option A:	Response Variable
Option B:	Slope

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Option C:	Coefficients
Option D:	Predictor Variables
Q8.	Height, width comes under which type of data?
Option A:	Finite
Option B:	Discrete
Option C:	Infinite
Option D:	Continuous
Q9.	difference between supervised learning and unsupervised learning is given by
Option A:	unlike unsupervised learning, supervised learning can be used to detect outliers
Option B:	no difference
Option C:	unlike supervised learning, unsupervised learning can form new classes
Option D:	unlike unsupervised learning, supervised learning needs labeled data
Q10.	Following algorithm is density-based clustering algorithm
Option A:	K-Medoids
Option B:	OPTICS
Option C:	DIANA
Option D:	BIRCH
Q11.	The process of hierarchical clustering is represented by-
Option A:	Decision Tree
Option B:	Dendrogram
Option C:	Flowchart
Option D:	Hierarchical model
Q12.	K medoids is an example of which type of clustering method?
Option A:	Hierarchical
Option B:	Density Based
Option C:	Partition
Option D:	Combination
Q13.	Suppose while performing DBSCAN we randomly choose a point which has less than MinPts number of points in its neighborhood. Which among the following is true for such a point?
Option A:	It is treated as noise, and not considered further in the algorithm
Option B:	It becomes part of its own cluster
Option C:	Depending upon other points, it may later turn out to be a core point
Option D:	Depending upon other points, it may be density connected to other points
Q14.	Which of the following methods explore structures in the data
Option A:	Contextual Outlier Detection and Collective Outlier Detection
Option B:	Classification Outlier Detection and Clustering Outlier Detection
Option C:	Parametric Outlier Detection and Non-Parametric Outlier Detection
Option D:	Distance based Outlier Detection and Density based Outlier Detection
Q15.	The frequency of occurrence of an itemset is also known as _____

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Option A:	Support count
Option B:	Confidence
Option C:	Support
Option D:	Lift
Q16.	What is association rule mining?
Option A:	Same as frequent itemset mining
Option B:	Finding of strong association rules using frequent itemsets
Option C:	Using association to analyze correlation rules d.
Option D:	Finding classification rules using frequent itemsets
Q17.	Which of the following is the application of frequent itemset mining?
Option A:	Real time analysis
Option B:	Fraud analysis
Option C:	Network analysis
Option D:	Market Basket Analysis
Q18.	What do you mean by support($X \rightarrow Y$) is_____
Option A:	The number of transactions where XUY appears divided by the total number of transactions.
Option B:	Total number of transactions containing X or Y
Option C:	Total number of transactions containing X and Y
Option D:	Total number of transactions containing X but not Y
Q19.	Which of the following is not considered as ethical in business Intelligence
Option A:	Using customer data for better customer service
Option B:	Giving customer data to other companies for financial gain
Option C:	Accessing the users' data with for data mining
Option D:	Accessing user's location to give location specific ads n users mobile phone
Q20.	Decisions are _____ when they affect the entire organization or at least a substantial part of it for a long period of time.
Option A:	Operational
Option B:	Technical
Option C:	Tactical
Option D:	Strategic

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Q2.	Solve any Two Questions out of Three	10 marks
A	What is data Preprocessing? Explain different methods	
B	What is clustering? The data for clustering is {2,4,10,12,3,20,11,25} where k=2 cluster the given data using k-means algorithm	
C	Explain multidimensional and multi-level association rules with example	

Q3	Solve any Two Questions out of Three	10 marks
A	Define business intelligence with examples	
B	Partition the given data into 4 bins using binning method and perform smoothing by bin mean, by median, by bin boundaries Data: 11,13,13,15,15,16,19,20,20,21,21,22,23,24,30,40,45,45,45,71,72,73,75	
C	What is an outlier? Describe methods that can be used for outlier analysis	

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Examination June 2021

Examinations Commencing from 1st June 2021

Program: Information Technology

Curriculum Scheme: Rev2016

Examination: TE Semester VI

Course Code: ITC603 and Course Name: Cloud Computing and Services

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	The attempt to categorize the cloud network based on four factors namely location, Ownership, Security, Sourcing has lead to which model?
Option A:	Cloud NIST model
Option B:	Deployment Model
Option C:	Cloud Cube Model
Option D:	Service Models
2.	If the application, data, middleware and runtime executions are managed by the customer then you have purchased a _____ as a service in cloud .
Option A:	Software as a Service
Option B:	Data as a Service
Option C:	Platform as a Service
Option D:	Infrastructure as a Service
3.	In the Cloud Architecture a layer that provides the basic software management for the physical servers and can be implemented as an operating system, hypervisor and virtual machine monitor and/or clustering middleware.
Option A:	Software Kernel
Option B:	Cloud Application Layer
Option C:	Cloud Software Infrastructure Layer
Option D:	Hardware and Firmware
4.	Which of the following is not the advantage of Virtualization?
Option A:	Cost Reduction
Option B:	Efficient resource utilization
Option C:	Increased flexibility
Option D:	Upfront Investments
5.	Which of the following is very poor in ISA Level virtualization?
Option A:	performance
Option B:	application flexibility
Option C:	implementation complexity
Option D:	application isolation
6.	Which technique is used to optimize performance of virtual memory ?
Option A:	Accumulator
Option B:	Loader

Option C:	Translation Look aside Buffer
Option D:	Emulator
7.	How can confidentiality of information be achieved?
Option A:	By ensuring enough resources to make information available for all users
Option B:	By preventing unauthorized changes
Option C:	By regularly backing up the information
Option D:	By restricting access to information
8.	Which three OpenStack components does Nova need to function?
Option A:	Neutron, Horizon and Glance
Option B:	Glance, Keystone and Horizon
Option C:	Keystone, Glance and Neutron
Option D:	Cinder, Swift and Kolla
9.	What is Google App Engine (GAE) for?
Option A:	GAE is for detecting malicious apps
Option B:	GAE is for running web applications on Google infrastructure
Option C:	GAE replaces the modern computer
Option D:	GAE is a system to develop hardware interfaces
10.	Challenges in Mobile Cloud Computing are
Option A:	High bandwidth, Heterogeneity
Option B:	Service availability, Homogeneity
Option C:	Low bandwidth, Heterogeneity
Option D:	High bandwidth, Service unavailability
11.	_____ is the medium for storing objects in S3
Option A:	Vault
Option B:	SSD
Option C:	Bucket
Option D:	HDD
12.	An Elastic IP Addresses (EIP) is an _____ that you can assign to your account from the pool and can also return it to the pool.
Option A:	static private IP address
Option B:	static public IP address
Option C:	dynamic public IP address
Option D:	dynamic private IP address
13.	_____ is very low-price online file storage web service which offer secure, flexible and durable storage for online data backup and archiving.
Option A:	Amazon Glacier
Option B:	Amazon S3
Option C:	Amazon EBS
Option D:	Amazon ELB
14.	CSG acts as a bridge between
Option A:	Local applications and cloud-based storage
Option B:	Remote applications and cloud-based storage

Option C:	Local applications and local storage
Option D:	Remote applications and remote storage
15.	Keystone does not provide
Option A:	Public/private key management
Option B:	Token and password-based authentication
Option C:	RBAC based authorization
Option D:	Secure protocols
16.	Which of the following is not a function of SWIFT
Option A:	Provisioning and deploying VMs
Option B:	Storing objects securely
Option C:	Backup and archival
Option D:	Extreme scalability
17.	AWS console is analogous to _____ service of Openstack
Option A:	Neutron
Option B:	Nova
Option C:	Horizon
Option D:	Glance
18.	The CDMI standard is developed by
Option A:	ISOs Storage Web Group
Option B:	SNIA Cloud Storage Technical Web Group
Option C:	NISTs Storage Technical Web Group
Option D:	IEEE Cloud Storage Web Group
19.	When is cloud recovery possible
Option A:	when only source is in cloud
Option B:	when only recovery site is in cloud
Option C:	when both source and recovery sites are in cloud
Option D:	when both source and recovery sites are not in cloud
20.	Virtual storage and virtual machines are provided by
Option A:	PaaS
Option B:	IaaS
Option C:	CaaS
Option D:	SaaS

Q2	Solve any Two Questions out of Three	10 marks each
A	Explain the NIST cloud model.	
B	Explain Xen virtualization with the help of its architecture.	
C	Compare and contrast between AWS S3, EBS and Glaciers.	

Q3.	Solve any Two Questions out of Three	10 marks each
A	Write a Short note on Cloud data management interface.	
B	Explain Google File System in detail.	
C	Explain Disaster recovery as a service in detail.	

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Examination June 2021

Examinations Commencing from 1st June 2021

Program: Information Technology

Curriculum Scheme: Rev2016

Examination: TE Semester VI

Course Code: ITC604 and Course Name: Wireless Network

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	When an electromagnetic wave travels in free space, it suffers from
Option A:	Absorption
Option B:	Attenuation
Option C:	Refraction
Option D:	Super-refraction
2.	The range of GSM and CDMA technology is ____ and they also have ____ rates and modulation schemes.
Option A:	Different, different
Option B:	Same, same
Option C:	Different, same
Option D:	Same, different
3.	The most critical feature of TDMA operation is
Option A:	Dividing the carrier channel bandwidth into time slots
Option B:	Assignment of time-slots among multiple subscribers
Option C:	Time synchronization to the incoming TDMA frame
Option D:	Providing different access rates to subscribers
4.	GPRS is an overlay on top of the ____ physical layer and network entities.
Option A:	AMPS
Option B:	ETACS
Option C:	GSM
Option D:	IS-95
5.	EDGE is a new radio interface technology with enhanced modulation, and increases the GPRS data rates by up to
Option A:	three times
Option B:	four times
Option C:	six times
Option D:	eight times
6.	With a slotted ALOHA random-access protocol, the maximum throughput is _____ of the full channel capacity
Option A:	18.4%

Option B:	36.8%
Option C:	50%
Option D:	100%
7.	The normalized bandwidth efficiency of the IS-95 CDMA system is
Option A:	64 chips/s/Hz
Option B:	1.35 chips/s/Hz
Option C:	0.98 chips/s/Hz
Option D:	0.5 chips/s/Hz
8.	Which of the following is not a WSN topology?
Option A:	Star
Option B:	Mesh
Option C:	Tree
Option D:	Ring
9.	WSN needs to be
Option A:	Fault Tolerant
Option B:	Adaptable
Option C:	Recyclable
Option D:	Both Adaptable and Recyclable
10.	Which is not the application of VANETs
Option A:	Platooning
Option B:	Traffic information systems
Option C:	Road Transportation Emergency Services
Option D:	video transmission
11.	Which of the following is not a measurement parameter for ad-hoc network?
Option A:	Packet transmission ratio
Option B:	Routing overhead
Option C:	Hop count
Option D:	Network Data Transmission Speed
12.	Which of the following specifies a set of media access control (MAC) and physical layer specifications for implementing WLANs?
Option A:	IEEE 802.16
Option B:	IEEE 802.3
Option C:	IEEE 802.11
Option D:	IEEE 802.15
13.	HIPER-LAN stands for _____
Option A:	High Precision Radio Local Area Network
Option B:	High Performance Radio Local Area Network
Option C:	High Precision Radio Land Area Network
Option D:	Huge Performance Radio Link Access Node

14.	_____ is a low data rate wireless networking protocol targeted towards automation and remote-control applications.
Option A:	ZigBee technology
Option B:	Bluetooth technology
Option C:	HR-PAN
Option D:	UMTS
15.	WiMAX and LTE use _____ in uplink and downlink mechanism.
Option A:	Single antenna configuration
Option B:	Double antenna configurations
Option C:	multiple antenna configurations
Option D:	Radio Network configurations
16.	What is the raw channel bit error rate of Bluetooth?
Option A:	10^3
Option B:	10^{10}
Option C:	10^{12}
Option D:	10^1
17.	An attack in which the site is not capable of answering valid request.
Option A:	Smurfing
Option B:	Denial of service
Option C:	E-mail bombing
Option D:	Ping storm
18.	_____ provides an isolated tunnel across a public network for sending and receiving data privately as if the computing devices were directly connected to the private network.
Option A:	Virtual Protocol Network
Option B:	Virtual Public Network
Option C:	Virtual Private Network
Option D:	Visual Private Network
19.	Calculate number of APs per group supported by a mobility group made up of 12 4402-25 and 12 4402-50 WLC devices?
Option A:	800
Option B:	900
Option C:	1000
Option D:	1200
20.	The number of APs supported by 'Catalyst 3750G Integrated WLC WS-C3750G-24WS-S25' and 'Catalyst 6500 Series WiSM' respectively are _____
Option A:	50,100
Option B:	25,300
Option C:	25,100
Option D:	50,300

Q2. (20 Marks Each)	
A	Solve any Two 5 marks each
i.	Differentiate between different wireless generations, 1G,2G,3G and 4G
ii.	Explain the design issues of VANET and Justify the importance.
iii.	What are the challenges in Wireless sensor network?
B	Solve any One 10 marks each
i.	Explain wireless multiple access techniques with suitable diagrams
ii.	Explain Bluetooth Architecture in Detail along with its Advantages.

Q3 (20 Marks Each)	
A	Solve any Two 5 marks each
i.	What are the Design Considerations for Campus Wireless Networks? Explain
ii.	Compare Mi-Fi and Ly-Fi
iii.	Explain Virtual Private Network and List different protocols?
B	Solve any One 10 marks each
i.	Explain in detail WMAN 802.16 WiMAX Technology.
ii.	What is the difference between a physical channel and a logical channel? Describe types of GSM logical channel.

University of Mumbai
Examination 2021 under cluster 7
Examinations Commencing from 1st June 2021

Program: **Information Technology**

Curriculum Scheme: 2016

Examination: TE Semester VI

Course Code: ITDLO6023 and Course Name: Digital Forensic

Time: 2 hour

Max. Marks: 80

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Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Most widely used command for listing open ports on unix system is
Option A:	Netstat
Option B:	w-command
Option C:	ls command
Option D:	ps command
2.	_____ is a popular tool used for discovering networks as well as in security auditing.
Option A:	Ettercap
Option B:	Metasploit
Option C:	Nmap
Option D:	Burp Suit
3.	Which of the following deals with network intrusion detection and real-time traffic analysis?
Option A:	John the Ripper
Option B:	LophtCrack
Option C:	Snort
Option D:	Nessus

4.	One of the most common approaches to validating forensic software is to:
Option A:	Examine the source code
Option B:	Ask others if the software is reliable
Option C:	Compare results of multiple tools for discrepancies
Option D:	Computer forensic tool testing projects
5.	Encase tool is used for
Option A:	Create the image of hard disk drive
Option B:	To generate technical report
Option C:	To see which are the system are still alive in network
Option D:	To create report in PDF file
6.	Which of them is not an appropriate method of router security
Option A:	Unused ports should be blocked
Option B:	Unused interfaces and services should be disabled
Option C:	Routing protocol needs to be programmed by security experts
Option D:	Packet filtering needs to be enabled
7.	_____ is the method for keeping sensitive information in email communication & accounts secure against unofficial access, loss, or compromise.
Option A:	Email security
Option B:	Email hacking
Option C:	Email protection
Option D:	Email safeguarding
8.	The overall I/O rate in RAID level 4 is _____
Option A:	low
Option B:	very low

Option C:	High
Option D:	MEDIUM
9.	Which of the following will not help in preserving email security?
Option A:	Create a strong password
Option B:	Connect your email to a phone number
Option C:	Use two-factor authentication for password verification and login
Option D:	Click on unknown links and sites
10.	The first tool for making forensic copies of computer storage media was:
Option A:	EnCase
Option B:	Expert Witness
Option C:	dd
Option D:	Safeback
11.	which of the following is not the volatile data for live response
Option A:	System date and time
Option B:	USB
Option C:	Currently running process
Option D:	Currently logged on users
12.	Which command is used to display current running process
Option A:	psloogedon
Option B:	plist
Option C:	ps
Option D:	pslog

13.	Which phase involves data collection and data analysis.
Option A:	Reporting
Option B:	Resolution
Option C:	Investigation
Option D:	Initial response
14.	Which is not the variations of live response
Option A:	Initial live response
Option B:	Pre-initial live response
Option C:	In-depth response
Option D:	Full live response
15.	During data collection, what is the standard way of obtaining remote logs from a centralized host
Option A:	chklog
Option B:	ChkLog
Option C:	logs
Option D:	SYSLOG
16.	A free tool that is used to enlist listening ports for all the processes.
Option A:	listen
Option B:	listp
Option C:	fport
Option D:	flport
17.	How many major components are there in incident response methodology
Option A:	9
Option B:	3

Option C:	7
Option D:	5
18.	Which is not a step in preparing the response toolkit
Option A:	Searching information
Option B:	Tag a response toolkit media
Option C:	Check the dependencies
Option D:	creating checksum
19.	which of the following is not a part of CSIRT team:
Option A:	Security analysts
Option B:	Lead investigator
Option C:	Information Lead
Option D:	HR/legal representation
20.	Which is the last component/stage of incident response methodology
Option A:	Resolution
Option B:	Data analysis
Option C:	Reporting
Option D:	Initial response

Q2)	Solve any Two Questions out of Three 10 marks each
A	<i>Explain in detail collecting volatile & non-volatile data in unix-based systems</i>
B	<i>Explain volatile data collection procedure in window systems.</i>
C	<i>Explain how to use router as a forensic tools.</i>

Q3)	Solve any Two Questions out of Three 10 marks each
A	<i>Explain RAID techniques in detail.</i>

B	<i>State the rule of digital evidence along with its characteristics.</i>
C	<i>Explain guidelines for incident report writing. Give one report writing examples..</i>