Information Taste – three

Information is delicious !
"Information Taste" is a tasty IT test.
Hope you learn new things & enjoy !

Bülent Yücesoy

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THIS BOOK HAS EXAM-LIKE FORMAT, BUT IT IS NOT AN EXAM , IT IS JUST A BOOK !

- Don't get surprised, it is really just a book, it is not an exam !
  The main aim of this book is mentioning some key topics and helping you learn more & wonder more.
  This book is not intended to make you a suffering exam.
  Notes are preferred to be given in exam format, so exam is just a format, that's all.
  If you agree this concept, then there are no question points, no exam duration limit etc.
  You will decide how to answer the questions. (with internet or without internet)
  Just try to understand and try to answer, don't google immediately from the very first beginning.
  ➔ But if you want answering this test-book as an exam, you can read criterias below.
  - Happy testing :)

IF YOU WANT ANSWERING THIS TEST-BOOK AS AN EXAM, YOU CAN READ CRITERIAS BELOW

- This book has 50 questions. So all true options in a question have a total point of 2.
- Total exam duration is 75 minutes. Passing score is at least 70 of 100.
- Exam is documentation/internet closed exam.
- Questions have one or many answers. Questions will ALWAYS say "SELECT ALL THAT APPLY".
  Questions will NEVER say "SELECT n THAT APPLY (n = total true option number)"

SCORING ALGORITHM
  Think that a question has 5 options (a,b,c,d,e) but answer set is "a" and "c".
  Question must have totally "2 points", so "a" is "1 point" + "c" is "1 point".
  This makes score of all false options (b,d,e) each having "-1 point" separately.

* If you dont give any answer (empty question) - your score is already "0 point"
* If you just answer "a"-> your score is "1 point"
* If your answers are "a,b,c" -> your score is = 1+ (-1) + 1 = "1 point"
* If your answers are "b,d,e" -> your score is = (-1) + (-1) + (-1) = "-3 points"
 * If your answers are "a,b,c,d,e" -> score = 1 + (-1) + 1 + (-1) + (-1) = "-1 point"

  Similar example can be given like below
  4 options (a,b,c,d) exist for a question. 3 is correct. (a,b,d)
  This makes each true option "0,66 point" , which makes any false option (c) having each "-0,66 point"
  You can calculate your score accordingly.
- Happy examining :)

SOLUTIONS
- Solutions are given but they are short descriptions, not whole all story.
  It is your homework to examine in detail if you wondered the rest of story.
  If you really wondered something and examined it, this book will succeed its mission.

COMMENTS
- All comments, advises are welcomed in this non-profit hobby activity (**bulent.yucesoy@gmail.com**)
- "Information taste" series will continue annually. I will care all comments. (thanks if you comment)
- I will publish your summarized comments in my web site. (**http://web.itu.edu.tr/~yucesoyb/books**)

Question-1: How must we calculate IBM AIX LPAR physical cpu utilization with lparstat command for capacity planning?

    a. physical cpu utilization when app=0

    b. physical cpu utilization when %idle=0

    c. physical cpu utilization when lbusy=0

    d. physical cpu utilization when %utcyc=0

Question-2: Select all Linux commands that make network bandwith limitation.

    a. tcptr

    b. flowadm

    c. tc

    d. ipfilter

Question-3: Which AIX-Solaris command matching(s) are true?

    a. Errpt/fmdump

    b. Probevue/dtrace

    c. Mksysb/archiveadm

    d. Chfs/zpool

Question-4: Choose all correct abbreviations.

    a. SPARC= Scalable Platform Architecture
    b. POWER= Performance Optimized with Enhanced RISC
    c. EBCDIC = Extended binary coded decimal interchange code
    d. IBM = Intelligent Business Machines

Question-5:

```
$ ls -ltrn /data1/file1
-rw-r--r-- 1 2000000037 1000 322 2013-11-20 10:36:40 +0900 /data1/file1
```

Select all possible explanations for 2000000037

    a. User account may be deleted, this may be orphan user-ID
    b. /data1 may be NFS disk, this may be remote user-ID and there may be idmapd issue
    c. User moved to different Active Directory domain, this is old user-ID
    d. User is valid, there is no problem, it is just a user-ID.
    e. It is a normal username, it is not user-ID

Question-6: Sniffers operate at which OSI layers

    a. 2
    b. 3
    c. 4
    d. 7

Question-7: Which man command section gives information about system calls?

    a. 8
    b. 7
    c. 5
    d. 2

Question-8: Select all areas **hashing is used**

    a. Data clustering

    b. Spam Filtering

    c. Zero Knowledge Proof Implementations

d. Digital Signatures

Question-9: Select all protocols that live problem with NAT

    a. ICMP
    b. SSH
    c. FTP
    d. SIP

Question-10: Select all correct statement(s)

    a. Benchmarking has no meaning, your application performance matters
    b. Benchmarking can help you detect your bottlenecks
    c. Single component benchmarking may mislead as system has many components cooperating
    d. any hardware and software parameter must be well understood and equally configured to make a fairy correct benchmarking

Question-11: Select all benefits fog computing provided over cloud computing

    a. More security

    b. Faster response times

    c. Less network bandwith usage

    d. Lower costs

Question-12: Select all malware analysis tools

    a. Cuckoo

    b. Yara

    c. Valgrind

    d. none

Question-13: Select newest tool below for network management

    a. MRTG

    b. Nagios

    c. Wireshark

    d. Ansible

Question-14: Select all true statement(s)

    a. DAC allows users managing permissions for their own files, MAC not.
    b. DAC and MAC are mutually exclusive.
    c. There can be combinations like DAC+RBAC or MAC+RBAC
    d. RBAC is also called "separation of roles"

Question-15: RAID parity bit is calculated with which function?

    a. Boolean function

    b. Cartesian product function

    c. Inclusive OR

    d. Exclusive OR

Question-16: Select all true statement(s)

    a. lsof can help you detect du-df usage difference.
    b. lsof cant be used with regular expressions
    c. lsof and fuser are similar, but lsof has more options.
    d. lsof can show network related files for some network port range

Question-17: Select all true statement(s)

    a. it is possible to run periodic jobs at every 30 seconds with cron
    b. anacron can be used for servers that can stay shutdown for some time.
    c. server reboot is always a MUST for any OS for cron if you changed timezone.
    d. Jobber is an alternative for crond

Question-18: Select all correct Linux Distribution names.

    a. Kilimanjaro

    b. Mint

    c. Arch

    d. Kali

Question-19: Select all correct UNIX/Linux pager programs

    a. lv

    b. pager

    c. cat

    d. vi

Question-20:

Which below linux command(s) can help you create RAID-6 volume at RedHat Linux?
(select all that apply)

    a. mdadm
    b. lvm
    c. dmsetup
    d. raidctl

Question-21:

Select all true statement(s)

    a. ATMoMPLS is Layer-2 VPN
    b. MPLS VPN is Layer-3 VPN
    c. L2TP creates Layer-2 tunnel using Layer-3 IPSec
    d. FREELAN is a VPN Solution working at Layer 7

Question-22: Select all true VPN passthrough techniques

    a. PPTP Redirection
    b. enhanced GRE
    c. IPSec NAT Traversal
    d. IPSec Transport mode

Question-23: Select all areas where NAC usage is will make better

    a. BYOD
    b. Company wireless subnets
    c. IoT
    d. Serverless computing

Question-24: Which is not LAN extension network technique.

    a. LISP
    b. OTV
    c. VSLP
    d. VRRP
    e. DCI

Question-25: Select all concepts that includes partitioning.

    a. SR-IOV
    b. VLAN
    c. LACP
    d. Supernetting

Question-26: Select all challenges at LAN extension.

    a. Tromboning
    b. Broadcast Storms
    c. Unicast Flooding
    d. Loops

Question-27: Select all true about Wake-on-LAN (WoL)

    a. Laptop batteries live shorter with WoL usage.
    b. There exists broadcast communication inside WoL
    c. WoL send ping packets to wake up your PC/Server
    d. Your ethernet card must support WoLSelf-driving cars

Question-28: Select all true statement(s) about TRILL protocol

    a. does not support multicasts
    b. can be used for data center LAN extension
    c. prevents loops
    d. uses IS-IS protocol routing inside protocol

Question-29: Select all true about Extruder activities

    a. WikiLeaks is a sample for extrusion
    b. Honeypots can be used to monitor extruder activity
    c. Detecting extrusion is more difficult than intrusion
    d. Extrusion prevention is better to implement than extrusion detection.

Question-30: Select all hypervisors that both can run as Type-1 and Type-2

    a. RedHat's KVM
    b. Oracle VM for Sparc
    c. IBM PowerVM
    d. Oracle Virtualbox
    e. Vmware ESX

Question 31: Select all true statement(s)

    a. There is no technical difference between primary group and additional groups.
    b. There is logical difference and application usage difference between primary group and additional groups.
    c. At first user login, primary group is used for newly created home folder group permissioning.
    d. ACL permissionings consider both primary group and additional groups.

Question-32: Select all terms that can be used in DMZ configurations.

    a. Split-screened subnet
    b. perimeter network
    c. Boundary router
    d. internal firewall

Question-33: Select all true statement(s) about The Onion Router(TOR)

    a. It is used in processing with anonymous communications
    b. Onion routing uses Privoxy filtering
    c. Onion network provides hidden services
    d. Onion network resists eavesdropping attacks

Question-34: What is maximum network diameter according to STP timers?

    a. 7
    b. 8
    c. 9
    d. 10

Question-35: Tier-X datacenters have no SPoF.

What is X?

    a. 2
    b. 3
    c. 4
    d. 5

Question-36:

Which command(s) can't be used in Linux for system call level tracing?
(select all that apply)

    a. perf
    b. systemTap
    c. dtrace
    d. probeVue

Question-37:

Select all true about UNIX/Linux load average calculations

    a. If Load_Average > your_CPU_number, it MAY be needed to examine the system
    b. Linux calculation differs UNIX calculation
    c. IO hang at an NFS disk may show higher values in UNIX
    d. In Linux, when processes with state "D" increases, Load average increases

Question-38: Which is not data modelling language?

    a. SMI
    b. YANG
    c. YIN
    d. UML

Question-39: Which best describes SDI (Software Defined Intelligence)

    a. SDS+AI
    b. SDN+AI
    c. SDA+AI
    d. SDP+AI

Question-40: Select all cloud related standards

    a. OCCI
    b. CDMI
    c. CIMI
    d. CAMP

Question-41: Selec all true about SDP (Software Defined Perimeter)

    a. It is cloud correspondant of DMZ but it is more secure
    b. It provides application segmentation with its policies
    c. SDP is also called black-cloud.
    d. SDP acts as a broker between remote users and internal applications.

Question-42: Select all true statement(s)

    a. iperf is network benchmarking tool
    b. fio is disk io benchmarking tool
    c. stream is memory bw benchmarking tool
    d. finding first N prime numbers in C code is a single threaded cpu benchmark

Question-43: SD-Branch uses which technology?

    a. SD-WAN
    b. SD-LAN
    c. SD-WLAN
    d. SD-MAN

Question-44:

Which below command shows system calls a program called in IBM AIX?

    a. strace
    b. truss
    c. syscalls
    d. execve

Question-45: Which is/are not UNIX/Linux Command interpreter(s)?

a. fish
b. ssh
c. tcsh
d. zsh

Question-46: which abbreviation below does not exist in Windows Registry?

a. HKCR
b. HKU
c. HKCU
d. none

Question-47: which is not a correct IBM AIX ODM object class?

a. CuDev
b. CuDvDr
c. CuAttr
d. CuVPD

Question-48: which file format cant be installed as a program on IBM AIX?

a. LPP
b. BFF
c. PKG
d. RPM

Question-49: which is not a builtin IBM AIX command?

a. lssys
b. lsps
c. lslv
d. lshw

Question 50: Select all true statement(s)

a. Stress tests can be Spike-Test and Soak-Test
b. To test your system behavior prior to Black Friday, you must do Spike-Test
c. Stress tests can help examining memory leaks, security issues, data corruption etc...
d. Performance tests aim hardware and software behaviors, limits etc.
e. Load tests aim system heavy-load response by testing many different use-case scenarios

SOLUTIONS

Solution-1: Correct answer is "c".

Solution-2: Correct answer is "c".
Solution-3: Correct answer is "d"
Solution-4: Correct answer is "d".
Solution-5: Correct answers are "a", "b", "c" and "d"
Solution-6: Correct answer are "a","b"
Solution-7: Correct answer is "d".
Solution-8: all true
Solution-9: Correct answer are "a", "c" and "d".
Solution-10: Correct answers are "b", "c" and "d".
Solution-11: Correct answers are "a", "b" and "c"
Solution-12: Correct answers are "a" and "b"
Solution-13: Correct answer is "d"
Solution-14: All options are true.
Solution-15: Correct answer is "d"
Solution-16: All options are true.
Solution-17: Correct answers are "a", "b" and "d"
Solution-18: There is nothing like Kilimanjaro, all other are true.
Solution-19: Correct answers are LV and PG.
Solution-20: Correct answer is dmsetup
Solution-21: All options are true.
Solution-22: Correct answers are "b" and "c".
Solution-23: All true except Serverless computing
Solution-24: VRRP is not LAN extension technique
Solution-25: SR-IOV and VLAN are partitioning, other two are aggregating.
Solution-26: All true except Unicast Flooding
Solution-27: Correct options are "a","b" and "d".
Solution-28: TRILL supports multicast. All other true.
Solution-29: All are true.
Solution-30: Answer is RedHat KVM. Virtualbox is Type-2, all other Type-1.
Solution-31: All true.
Solution-32: All are used
Solution-33: All are true.
Solution-34: STP max network diameter is 7.
Solution-35: There is no Tier-5, answer is Tier-4.
Solution-36: Correct answer is "d"
Solution-37: Correct answers are "a", "b" and "d". C is valid for UNIX, not Linux
Solution-38: UML is software modelling, all other are data modelling languages.
Solution-39: SDI = SDN + AI
Solution-40: all true.
Solution-41: all true.
Solution-42: all true.
Solution-43: SD-Branch uses SD-WAN.
Solution-44: Correct answer is "c".
Solution-45: ssh is not interpreter, it is protocol.
Solution-46: All exist in Registry, answer is none.
Solution-47: Correct name is CuAt not CuAttr.
Solution-48: PKG is Solaris binary package format
Solution-49: correct answer is "d"
Solution-50: All true.

Bulent Yucesoy was born in Ankara at 16.04.1982.

He went to elementary school and middle school at Izmir. (1988-1996)

He later on was accepted to Izmir Science High School. (1997-2000)

He won university and entered ITU Computer Engineering Department. (ITU = Istanbul Technical University)

He loved computer engineering and continued at same university for his master degree (2004-2007) after he finished bachelor. (2000-2004)

While making master education, he also worked at university IT Office (www.bidb.itu.edu.tr).

After his military service, he worked for 2 years at Kocnet Telecom (Vodafone acquired it) company (2008-2010).

Afterwards he joined Garanti Technology and he is working there since 2010. (www.garantiteknoloji.com.tr)

He likes details, thinks that devil hides inside details.

He loves his wife Ipek, his son Cagan and lastly he loves learning. (that's why he thinks information is delicious.)

This book is for people who also loves learning.

Hope you also like the book.

You can send comments to bulent.yucesoy@gmail.com

Let's summarize Bulent's philosophy with a wonderful Ataturk's saying. It is valid for all the world, all the people;

"If you love your country, do your best in your job"