

# OPEN COMPETITION PE/32/B

TEST 1.a) MULTIPLE-CHOICE QUESTIONNAIRE TO ASSESS  
CANDIDATES' SPECIFIC KNOWLEDGE

- Time allowed: 45 minutes
- Marking: out of 60 (minimum 30)
- Number of questions: 60 – each right answer = 1 point
- Wrong answers will not be penalized
- You must answer using the **white answer sheet** in the envelope with your name and using a black ink pen.

*QUESTIONS 1-40 : GENERAL QUESTIONS COMMON TO THE  
THREE FIELDS OF THE COMPETITION*

*QUESTIONS 41-60 REFER TO ONE OF THE FOLLOWING  
FIELDS:*

*FIELD 1 - DEVELOPMENT, IMPLEMENTATION AND MAINTENANCE OF  
IT APPLICATIONS AND DATABASE MANAGEMENT:  
QUESTIONS PRINTED ON YELLOW PAPER*

*FIELD 2 - ADMINISTRATION AND SUPPORT OR IT SYSTEMS  
QUESTIONS PRINTED ON BLUE PAPER.*

*FIELD 3 – TELECOMMUNICATIONS:  
QUESTIONS PRINTED ON GREEN PAPER*

**YOU ARE REQUIRED TO ANSWER A TOTAL OF 60  
QUESTIONS: THE 40 GENERAL QUESTIONS AND  
ONE OF THE SETS OF 20 SPECIFIC QUESTIONS AT  
YOUR DISCRETION**

**DO NOT TURN THIS PAGE UNTIL  
YOU ARE TOLD TO DO SO**

## General questions 1 to 40

1. *What are TCO 95 and TCO 99 ?*
  - A : Two versions of an operating system for telecommunications equipment
  - B : Swedish ergonomic standards for computer equipment, in particular computer screens
  - C : ISO standards concerning the concept of Total Cost of Ownership
  - D : None of the above
2. *Which of the following is NOT a programming language for computers ?*
  - A : Cobol
  - B : Basic
  - C : Pascal
  - D : Debol
3. *What is the nominal capacity of an 80-minute CD-R when used for data ?*
  - A : 650 MB
  - B : 700 MB
  - C : 750 MB
  - D : 800 MB
4. *What is XHTML ?*
  - A : An eXtended version of HTML
  - B : An XML-compliant implementation of HTML
  - C : An implementation of HTML for X-Windows
  - D : An implementation of HTML for mobile phones
5. *In ADSL, a means of high-speed Internet access by telephone lines, the letter A stands for*
  - A : Asynchronous
  - B : Asymmetric
  - C : Anonymous
  - D : Arbitrary
6. *'Firewire' is the common name for :*
  - A : an Accelerated Graphics Processor
  - B : a new generation of computer chips
  - C : a high-speed serial interface
  - D : Gigabit Ethernet
7. *In HTML, the letter M stands for*
  - A : Mark-Up
  - B : Modelling
  - C : Module
  - D : Minimal

8. 'Bluetooth' is the common name for :
- A : a new generation of servers from IBM
  - B : a short-range wireless link
  - C : a high-performance floating-point processor
  - D : the button to eject the floppy from a floppy disk drive
9. How many keys are there on the numeric key pad of a standard 101/102 key PC keyboard?
- A : 10
  - B : 12
  - C : 17
  - D : 24
10. What is a 'big-endian' computer system ?
- A : A computer system designed for large-scale calculations
  - B : A computer system that stores the most significant byte of multi-byte values first
  - C : A computer system whose native word length is at least 64 bits long
  - D : None of the above
11. What is the decimal value of the hexadecimal number '7E' ?
- A : 70
  - B : 84
  - C : 126
  - D : 254
12. What is the acronym 'TWAIN' used for ?
- A : A dual-processor system
  - B : A standard programmatical interface for the acquisition of digital images
  - C : A standard computer interface to typesetting equipment
  - D : A standard interface for computer-based telephony
13. How many bytes are there in 1MB ?
- A : 1 million
  - B : 1,024 thousand
  - C : 1,048,576
  - D : 1,053,756
14. What is the common meaning of RJ-45 ?
- A : A code name for a new computer from Sony
  - B : A report generator
  - C : A connector typically used for telephone cables
  - D : A high-speed line printer

15. What are 'cascading style sheets' ?

- A : A means of separating formatting information from content in Web pages
- B : A technique for automatically formatting program code
- C : A hierarchical tree of document information in word processors such as Word
- D : A technique for creating fill-in forms as PDF files

16. What is Linux ?

- A : A programming language used by Unix programmers
- B : An integrated development environment for Macintosh
- C : A popular Unix-like Open-Source operating system
- D : A comic figure popular amongst programmers

17. Most Web browsers can display images in the popular formats 'GIF' and 'JPEG'. What is the advantage of GIF over JPEG ?

- A : GIF files are systematically smaller than equivalent JPEG files
- B : GIF files can handle more colours than JPEG files
- C : GIF files allow for features that are not possible in JPEG files (transparency, .....)
- D : GIF is a licence-free format which is not the case for JPEG

18. What is meant by 'PDA' ?

- A : A portable document format
- B : A pocket-sized computing device, typically used as an organizer
- C : The Prototype-oriented Development of Applications
- D : An application broker (Public Directory of Applications)

19. Which of the following is the TCP/IP protocol used for sending E-mail ?

- A : SNMP
- B : Sntp
- C : SMTP
- D : SMP

20. What is meant by the concept of 'Single Sign-On' ?

- A : Only one person may log on to a given machine at any one time
- B : A machine can only be used by a single identified user defined at installation time
- C : Users only need to identify themselves once per session
- D : Users must identify themselves to each application separately

21. In order to allow several processes to print to one printer at the same time, print jobs are written to disk and then presented to the printer one after the other. This procedure is called :

- A : Printer pooling
- B : Printer spooling
- C : Delayed printing
- D : On-line printing

22. A Hot-Swappable disk is :

- A : A disk which automatically transfers data to backup storage if it overheats
- B : A disk whose data may be copied to another disk without bringing the system down
- C : A disk which automatically mirrors its data on a second disk which will automatically take over in case of failure
- D : A disk which may be physically removed from and reinserted into the machine without bringing the system down

23. A researcher has set up a 10BASE-T network in the lab consisting of one server and one client. It uses shielded twisted-pair with impedance of 75 ohms, and a cable length of five meters. The workstation cannot maintain a consistent connection to the network. What is the solution?

- A : Change the cable to shielded twisted-pair with an impedance of 85-115 ohms
- B : Replace the cable with UTP
- C : Terminate the segment properly.
- D : Use a cable two meters in length

24. Apart from being a tribe of Indians, Apache is also :

- A : A system utility for tuning Windows systems
- B : A Web server software widely used on both Windows and Unix systems
- C : A scripting language similar to Python
- D : A page description language similar to Postscript

25. In the following Excel spreadsheet, the cell A3 contains the formula '=SUM(\$A1:A\$2)' and displays the value 4.

	A	B
1	1	2
2	3	4
3	4	
4		??

If the cell A3 is copied to B4 (the one currently displaying '??'), what value will B4 then display :

- A : 4
- B : 6
- C : 7
- D : 10

26. What is meant by an 'incremental backup' ?

- A : A tape backup that is appended to the same tape that was used for the previous backup
- B : A backup which includes more files than the previous one
- C : A backup that only backs up files that have changed since the previous backup
- D : A backup that only backs up user data and not system files

27. *A cache file system*

- A : reduces access time to remote or slow media
- B : uses hidden files to improve security
- C : allows efficient worldwide distribution through mirror sites
- D : tracks the history of accessed internet pages

28. *Swapping is a mechanism that allows*

- A : reorganisation of disk space to improve system performance
- B : the copying of memory pages to disk to ensure proper restart after a system crash
- C : flexible execution of different subroutines depending on context parameters
- D : the running of processes that require more physical memory than is available

29. *PGP stands for*

- A : Pretty good privacy, a popular program used to encrypt and decrypt e-mail
- B : Pretty good programming, a positive interpretation of "quick and dirty" because it is cheap and it works.
- C : Power guided programming, a popular shareware product for home programmers
- D : Pilot guided project, an ICT project where the specifications were tested in a pilot project

30. *XML means*

- A : Extended Markup Language, an extension to HTML
- B : Export Markup Language, a format to publish Word documents in HTML
- C : Extensible Markup Language, a simple text format derived from SGML
- D : Express Markup Language, a simplified version of HTML for WAP usage

31. *UML commonly stands for*

- A : Unified Modelling Language
- B : Uniform Markup Language
- C : Uniform Measuring Language
- D : Unicode Mapping Logic

32. *What is meant by a TFT computer screen?*

- A : A screen that is wider than a normal one (Cinemascope)
- B : A screen with very high definition (over 1600 x 1200)
- C : A screen of over 25" diagonal
- D : A flat screen with particularly high contrast

33. *If a Web server, say `www.dummy.org`, is not using the default port but another one, say 1234, what is the syntax to be used in a browser in order to connect to this server?*

- A : `http://www.dummy.org%1234/`
- B : `http://www.dummy.org@1234/`
- C : `http://www.dummy.org:1234/`
- D : `http://www.dummy.org(1234)/`

34. Which of the following Unix shells is commonly known as the "Bourne" shell?

- A : sh
- B : csh
- C : bash
- D : tesh

35. Which of the following is NOT the name of a Graphical User Interface (GUI) ?

- A : Aqua
- B : Gnome
- C : Motif
- D : Rexx

36. In the context of CD-R and CD-RW writers, 'packet writing' refers to a technique :

- A : to allow very large files to be split across several CDs
- B : to allow operating systems to write to CDs as if they were hard disks
- C : to create automatic installation CDs for packages
- D : to write CDs with more information than the theoretical size of the CD

37. Apart from East Germany, the acronym DDR also refers to a type of :

- A : high-capacity tape
- B : hard disk used in large clusters
- C : high-performance RAM
- D : high-capacity CD

38. What is the defining characteristic of a 'peer-to-peer' network ?

- A : Only machines belonging to the same group can talk to each other
- B : Servers can only talk to servers
- C : There is no distinction between clients and servers
- D : The visibility of machines is limited to immediate neighbours

39. In IT projects, what is the name given to significant events that allow the project team to check progress ?

- A : Deadlines
- B : Deliverables
- C : Milestones
- D : Checkpoints

40. What is 'Kerberos' ?

- A : A new generation of processors
- B : In Greek mythology, the god of computer scientists
- C : A system of authentication for networks
- D : A code name for a new operating system