

Technical Papers Technical Questions: Technical Questions Part IV

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1. The standard source for standard input, standard output and standard error is

- a. the terminal
- b. /dev/null
- c. /usr/you/input,/usr/you/output/,/usr/you/error respectively
- d. None

Ans (a).

2. The redirection operators > and >>

- a. do the same function
- b. differ: > overwrites, while >> appends
- c. differ: > is used for input while >> is used for output
- d. differ: > write to any file while >> write only to standard output
- e. None of these

Ans (b).

3. The command grep first second third/usr/you/myfile

- a. prints lines containing the words first, second or third from the file/usr/you/myfile
- b. searches for lines containing the pattern first in the files second, third, and/usr/you/myfile and prints them
- c. searches the files/usr/you/myfiel and third for lines containing the words first or second and prints them
- d. replaces the word first with the word second in the files third and/usr/you/myfile
- e. None of the above

Ans (b).

4. You are creating a Index on EMPNO column in the EMPLOYEE table. Which statement will you use?
- a. CREATE INdEX emp_empno_idx ON employee, empno
 - b. CREATE INdEX emp_empno_idx FOR employee, empno
 - c. CREATE INdEX emp_empno_idx ON employee (empno)
 - d. CREATE emp_empno_idx INdEX ON employee (empno)

Ans. c

5. Which program construct must return a value?
- a. Package
 - b. Function
 - c. Anonymous block
 - d. Stored Procedure
 - e. Application Procedure

Ans. b

6. Which Statement would you use to remove the EMPLOYEE_Id_PK PRIMARY KEY constraint and all depending constraints fromthe EMPLOYEE table?
- a. ALTER TABLE employee dROP PRIMARY KEY CASCAdE
 - b. ALTER TABLE employee dELETE PRIMARY KEY CASCAdE
 - c. MOdIFY TABLE employee dROP CONSTRAINT employee_id_pk CASCAdE
 - d. ALTER TABLE employee dROP PRIMARY KEY employee_id_pk CASCAdE
 - e. MOdIFY TABLE employee dELETE PRIMARY KEY employee_id_pk CASCAdE

Ans. a

7. Which three commands cause a transaction to end (Chosse three)?
- a. ALTER
 - b. GRANT
 - c. DELETE
 - d. INSERT
 - e. UPdATE

f. ROLLBACK

Ans. a, b, f

8. Under which circumstance should you create an index on a table?

- a. The table is small.
- b. The table is updated frequently.
- c. A columns values are static and contain a narrow range of values
- d. Two columns are consistently used in the WHERE clause join condition of SELECT

statements.

Ans. d

9. What was the first name given to Java Programming Language.

- a. Oak-Java
- b. Small Talk
- c. Oak
- d. None

Ans. a

10. When a bicycle is in motion, the force of friction exerted by the ground on the two wheels is such that it acts

- a. In the backward direction on the front wheel and in the forward direction on the rear wheel.
- b. In the forward direction on the front wheel and in the backward direction on the rear wheel.
- c. In the backward direction on both the front and rear wheels.
- d. In the backward direction on both the front and rear wheels.

Ans (d).

11. A certain radioactive element A, has a half life = t seconds. In $(t/2)$ seconds the fraction of the initial quantity of the element so far decayed is nearly

- a. 29%
- b. 15%

c. 10%

d. 45%

Ans (a).

12. Which of the following plots would be a straight line?

a. Logarithm of decay rate against logarithm of time

b. Logarithm of decay rate against logarithm of number of decaying nuclei

c. Decay rate against time

d. Number of decaying nuclei against time

Ans (b).

13. A radioactive element x has an atomic number of 100. It decays directly into an element y which decays directly into element z. In both processes a charged particle is emitted. Which of the following statements would be true?

a. y has an atomic number of 102

b. y has an atomic number of 101

c. z has an atomic number of 100

d. z has an atomic number of 101

Ans (b).

14. If the sum of the roots of the equation $ax^2 + bx + c = 0$ is equal to the sum of the squares of their reciprocals then $a/c, b/a, c/b$ are in

a. AP

b. GP

c. HP

d. None of these

Ans (c).

15. A man speaks the truth 3 out of 4 times. He throws a die and reports it to be a 6. What is the probability of it being a 6?

a. $\frac{3}{8}$

b. $\frac{5}{8}$

c. $\frac{3}{4}$

d. None of the above

Ans (a).

16. If $\cos^2 A + \cos^2 B + \cos^2 C = 1$ then ABC is a

a. Right angle triangle

b. Equilateral triangle

c. All the angles are acute

d. None of these

Ans (a).

17. Image of point (3, 8) in the line $x + 3y = 7$ is

a. (-1, 4)

b. (-1, 4)

c. (2, 4)

d. (-2, 4)

Ans (a).

18. The mass number of a nucleus is

a. Always less than its atomic number

b. Always more than its atomic number

c. Sometimes more than and sometimes equal to its atomic number

d. None of the above

Ans (c).

19. The maximum KE of the photoelectron emitted from a surface is dependent on

a. The intensity of incident radiation

b. The potential of the collector electrode

c. The frequency of incident radiation

d. The angle of incidence of radiation of the surface

Ans (c).

20. Which of the following is not an essential condition for interference

- a. The two interfering waves must be propagated in almost the same direction or the two interfering waves must intersect at a very small angle
- b. The waves must have the same time period and wavelength
- c. Amplitude of the two waves should be the same
- d. The interfering beams of light must originate from the same source

Ans (c).

21. When X-Ray photons collide with electrons

- a. They slow down
- b. Their mass increases
- c. Their wave length increases
- d. Their energy decreases

Ans (c).

22. An electron emits energy

- a. Because its in orbit
- b. When it jumps from one energy level to another
- c. Electrons are attracted towards the nucleus
- d. The electrostatic force is insufficient to hold the electrons in orbits

Ans (b).

23. How many bonds are present in CO₂ molecule?

- a. 1
- b. 2
- c. 0
- d. 4

Ans (d).