

ALGO QCM

1. Quel zone n'est pas dans la signature d'un type abstrait ?

- (a) TYPES
- (b) UTILISE
- (c) OPERATIONS
- ✓ (d) PRECONDITIONS

2. Que représentent $opé1$ et $opé2$ dans l'axiome suivant (dans lequel e est un élément et l une liste) $opé1(opé2(e,l)) = e$?

- (a) $opé1 = premier, opé2 = tête$
- (b) $opé1 = cons, opé2 = premier$
- ✓ (c) $opé1 = premier, opé2 = cons$
- (d) $opé1 = fin, opé2 = premier$

3. Pour la déclaration

```
TYPES true
UTILISE but, incredible
```

l'opération `that's` : `incredible x but -> true` est ?

- (a) Un observateur
- ✓ (b) Une opération interne
- (c) Un rapporteur
- (d) Une opération externe
- (e) Un observeur

4. Une opération utilisée pour préciser le domaine de définition d'une autre est ?

- (a) Une opération ponctuelle
- ✓ (b) Une opération auxiliaire
- (c) Une opération partielle
- (d) Une précondition

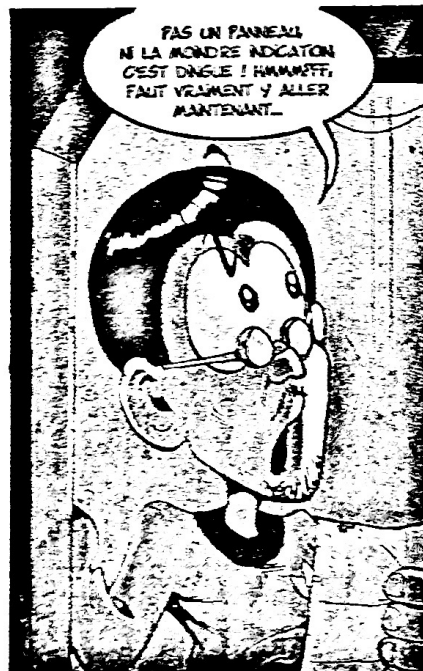
5. Quelles opérations définissent une liste récursive ?

- (a) `debut`
- (b) `longueur`
- ✓ (c) `fin`
- ✓ (d) `cons`
- (e) `ième`

6. Un type algébrique abstrait doit être ?

- ✓ (a) Complet
- (b) Conséquent
- ✓ (c) Consistant
- (d) Complément

7. Que représentent opé1 et opé2 dans l'axiome suivant (dans lequel e est un élément et l une liste) $opé1(opé2(e,l)) = l$?
- (a) opé1 = fin, opé2 = tête
 - (b) opé1 = cons, opé2 = fin
 - ✓ (c) opé1 = fin, opé2 = cons
 - (d) opé1 = cons, opé2 = tête
8. Une opération qui n'est pas définie partout est ?
- (a) Une opération ponctuelle
 - (b) Une opération auxiliaire
 - ✓ (c) Une opération partielle
 - (d) Une précondition
9. La construction d'une liste récursive est basée entre autres sur ?
- (a) La suppression du $K^{ième}$ élément d'une liste
 - ✓ (b) La récupération du reste de la liste
 - (c) L'insertion d'un élément à la $K^{ième}$ place
 - ✓ (d) L'ajout d'un élément en tête de liste
10. Pour la déclaration
- TYPES Vrai, Ouf
UTILISE De, Truc
- l'opération c'est-un : Vrai x Truc x De -> Ouf est ?
- (a) Un observateur
 - ✓ (b) Une opération interne
 - (c) Une opération externe
 - (d) Un observeur



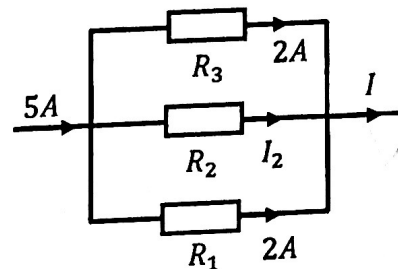
QCM Electronique – InfoS1

Pensez à bien lire les questions ET les réponses proposées (attention à la numérotation des réponses)

Soit le circuit ci-contre (Q21&22)

Q21. Que vaut l'intensité du courant I ?

- ✓
- a- 5A
 - b- 1A
 - c- 2A
 - d- On ne peut pas savoir



Q22. Que peut-on dire de R_2 et R_3 ?

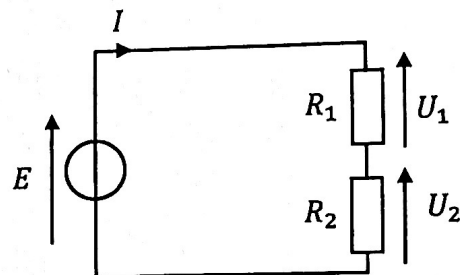
- C
- a- $R_2 < R_3$
 - b- $R_2 = R_3$
 - c- $R_2 > R_3$
 - d- On ne peut rien dire

Soit le circuit ci-contre, où :

$$R_1 = 200\Omega ; R_2 = 100\Omega$$

Q23. La somme des tensions aux bornes des deux résistances est :

- ✓
- a- Supérieure à la tension aux bornes du générateur
 - b- Inférieure à la tension aux bornes du générateur
 - c- Egale à la tension aux bornes du générateur



Q24. La tension E aux bornes du générateur est égale à ?

- A
- a- $(R_1 + R_2) \cdot I$
 - b- $(R_1 - R_2) \cdot I$
 - c- $R_2 \cdot I$
 - d- $R_1 \cdot I$

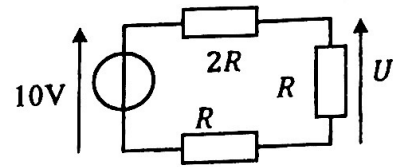
Q25. La tension U_2 aux bornes de R_2 vaut ?

- A
- a- $\frac{1}{3} \cdot E$
 - b- $\frac{1}{2} \cdot E$
 - c- $\frac{2}{3} \cdot E$
 - d- $\frac{3}{2} \cdot E$

Q26. Soit le circuit ci-contre. Que vaut U ?

A

- a- 2,5 V
- b- -2,5 V
- c- 5V
- d- 7,5 V

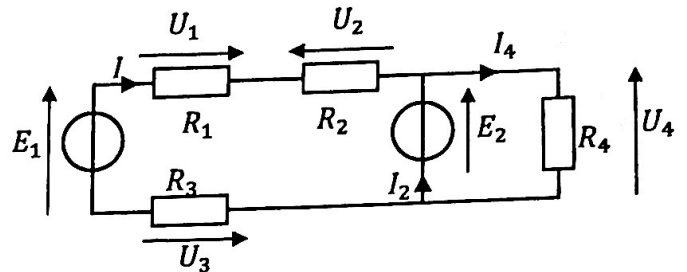


Soit le circuit ci-dessous (Q27&28).

Q27. Quelle est l'égalité correcte ?

✓

- a- $U_1 = -R_1 \cdot I$
- b- $U_2 = -R_2 \cdot I$
- c- $U_3 = -R_3 \cdot I$
- d- $U_4 = -E_2$



Q28. Quelle est l'égalité correcte ?

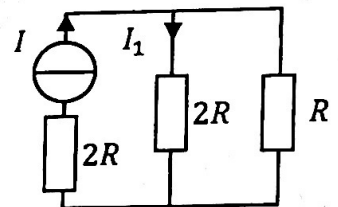
✓

- a- $U_1 = U_2$
- b- $E_1 - U_1 + U_2 + E_2 - U_3 = 0$
- c- $E_1 = U_3 + U_2 + E_2 - U_1$
- d- $E_1 = E_2$

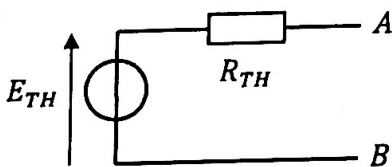
Q29. Soit le circuit ci-contre. Quelle est l'expression de l'intensité I_1 ?

C

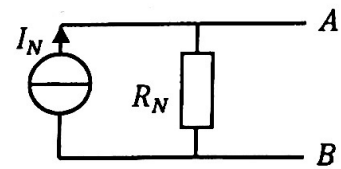
- a- $I_1 = \frac{2}{3} \cdot I$
- b- $I_1 = \frac{2}{5} \cdot I$
- c- $I_1 = \frac{1}{3} \cdot I$
- d- $I_1 = \frac{1}{5} \cdot I$



Q30. Soient les 2 schémas ci-dessous :



≡



Ces deux circuits sont équivalents si et seulement si :

✓

- a- $E_{th} = I_N$ et $R_{th} = R_N$
- b- $E_{th} = R_N \cdot I_N$ et $R_{th} = R_N$
- c- $E_{th} = \frac{I_N}{R_N}$ et $R_{th} = R_N$
- d- $E_{th} = R_N$ et $I_N = R_{th}$

QCM 3

Architecture des ordinateurs

Lundi 16 octobre 2023

Pour toutes les questions, une ou plusieurs réponses sont possibles.

31. Quel est le poids du chiffre C dans le nombre suivant : $ABCD_{16}$?

- A. 16
- B. 12
- C. Aucune de ces réponses.
- D. 1

32. Quel est le résultat de la soustraction suivante : $1000_{16} - 1_{16}$?

- A. 999_{16}
- B. FFF_{16}
- C. Aucune de ces réponses.
- D. $1FFF_{16}$

33. $137,015625_{10} =$

- A. $10001001,0000001_2$
- B. Aucune de ces réponses.
- C. $89,02_{16}$
- D. $89,04_{16}$

34. $1110111_2 + 1110111_2 + 1001011_2 =$

- A. 101011001_2
- B. Aucune de ces réponses.
- C. 100111001_2
- D. 100110001_2

35. $111110111_2 - 1100111_2 =$

- A. 110110000_2
- B. 110010000_2
- C. Aucune de ces réponses.
- D. 101010000_2

36. $10100011100_2 / 1100_2 =$
A. 1101110_2
 B. 1101101_2
C. 1101100_2
D. Aucune de ces réponses.
37. $10011100_2 * 101001_2 =$
A. 1010011111100_2
 B. 1100011111100_2
C. 1101011111100_2
D. Aucune de ces réponses.
38. $3B5_{16} + C1A_{16} + D2F_{16} =$
A. DFE_{16}
B. $1DFE_{16}$
 C. $1CFE_{16}$
D. Aucune de ces réponses.
39. Un mot de n bits possède :
 A. 2^n combinaisons
B. 2^{n-1} combinaisons
C. $2^n - 1$ combinaisons
D. Aucune de ces réponses.
40. Sur 8 bits, quel est le complément à deux de 98_{16} ?
 A. 98_{16}
B. 68_{16}
C. 67_{16}
D. Aucune de ces réponses.

Grammar (Questions 41-45)

41. My uncle ____ on a TV program today. We have to watch it!

- a. appear
- ✓ b. is appearing
- c. appears
- d. is appears

42. Jason _____ a little upset today. Don't you think?

- ✓ a. seems
- b. seeming
- c. is seeming
- d. seem

43. Did you know that Barbara _____ in ghosts?

- a. is believing
- b. is believe
- c. believe
- ✓ d. believes

44. Lola: Why are you so quiet?

Diego: Oh, it's nothing. I _____ the time when we got lost in the woods.

- a. remembers
- ✓ b. am remembering
- c. remember
- d. remembering

45. Sarah really _____ spiders but I _____ them, personally.

- a. is hating/like
- b. hate/likes
- c. hates/is liking
- ✓ d. hates/like

Email (Questions 46-50):

46. Which of the following does NOT include a phrasal verb?
- a) The project was put in place by the students.
 - b) The students worked out the project.
 - ✓ c) The students designed the project.
 - d) The project was dreamt up by the students.
47. Which statement is the MOST formal?
- a) Anna's taking a couple of weeks off at the start of next month.
 - b) Anna's gonna be leaving on holiday next week.
 - c) Anna is heading off on vacation in a fortnight.
 - ✓ d) Anna will soon be taking her annual leave.
48. Which sentence is the LEAST formal?
- ✓ a) We're gonna ditch the meeting next week.
 - b) Let's cancel next week's meeting.
 - c) I'm afraid we will have to postpone the meeting.
 - d) The meeting has, regrettably, to be rescheduled.
49. "Our application went through!" means that our application ____.
- ✓ a) succeeded
 - b) was not received
 - c) was being worked on
 - d) got lost
50. Saying "Please back me up" means that you ____.
- a) would like to reverse out of the car park.
 - b) would like copies to be made of your data.
 - ✓ c) would like someone to support you.
 - d) would like your back scratched.

Choose the ONE correct answer that applies in each case.

51. Which statement uses the most appropriate academic style?
- a. In this paper I argue that ChatGPT is indispensable
 - b. In this paper we argue that ChatGPT is indispensable
 - c. In this paper the argument is that ChatGPT is indispensable
 - d. This paper argues that ChatGPT is indispensable
52. Which statement uses the most appropriate academic style?
- a. Numbers won't increase until next year
 - b. Numbers aren't increasing until next year
 - c. Numbers won't be increased until next year
 - d. Numbers will not increase until next year
53. Which statement uses the most appropriate academic style?
- a. The experiment didn't produce any new findings
 - b. No new findings arose from the experiment
 - c. The experiment did not reveal no new results
 - d. New findings didn't arise from the experiment
54. Which statement uses the most appropriate academic style?
- a. Users, administrators etc. all require appropriate training
 - b. Appropriate training should be offered to users, administrators and technicians
 - c. Users, admin and techies all need training courses
 - d. Appropriate training is a must for everyone in IT
55. Which statement uses the most appropriate academic style?
- a. Who knows how many users there are?
 - b. Studies need to study the number of users
 - c. Studies should investigate how many users are there?
 - d. Studies need to examine how many users there are
56. Which statement uses the most appropriate academic style?
- a. The effects of prolonged screen use can be seen in students' performance
 - b. The effects of prolonged screen use reflect themselves in students' performance
 - c. The effects of prolonged screen on students' performance are seen
 - d. The effects of prolonged screen reflect in students' performance
57. Which statement is NOT good academic style?
- a. The lessons were originally created by a former lecturer
 - b. Originally, the lessons were created by a former lecturer
 - c. The lessons originally were created by a former lecturer
 - d. The lessons were created by originally a former lecturer
58. Which statement is NOT good academic style?
- a. Adults are doing little sport
 - b. A lack of sport afflicts many adults
 - c. Little adults do enough sport
 - d. Few adults do much sport
59. Which statement does NOT have the same meaning as the other three?
- a. Engineers need to be seen to be addressing the problem adequately
 - b. Adequate engineers must address the visible issue
 - c. It must be clear to all that engineers are properly resolving the issue
 - d. Engineers are required to be seen to address the problem sufficiently
60. Which statement does NOT have the same meaning as the others?
- a. Studies have revealed that consuming vegetables significantly improves health
 - b. Consuming vegetables has major health benefits according to studies
 - c. Vegetable consumption has been shown in studies to enable considerable health benefits
 - d. Studies show that major health improvements can seldom be achieved by eating vegetables