### CONCOURS <u>INTERNE</u> POUR LE RECRUTEMENT d'INGÉNIEURS DU CONTRÔLE DE LA NAVIGATION AERIENNE (I.C.N.A)

ÉPREUVE OBLIGATOIRE

## **ANGLAIS**

Durée: 3 heures

ICNA: Coefficient: 3

#### Cette épreuve comporte :

- 1 page de garde (recto)
- 1 page d'instruction (recto)
- 7 pages de sujet numérotées de 1 à 14 (recto-verso)

TOUT DISPOSITIF ELECTRONIQUE EST INTERDIT (EN PARTICULIER L'USAGE DE LA CALCULATRICE)

### ÉPREUVE OBLIGATOIRE D'ANGLAIS

#### A LIRE TRÈS ATTENTIVEMENT

L'épreuve obligatoire d'anglais de ce concours est un questionnaire à choix multiple qui sera corrigé informatiquement.

- 1) Pour remplir ce QCM, vous devez utiliser un stylo à bille à encre foncée : bleue ou noire. Vous devez **cocher ou noircir** complètement la case en vue de la lecture informatisée de votre QCM.
- 2) Utilisez le sujet comme brouillon (ou les feuilles de brouillons qui vous sont fournies à la demande par la surveillante qui s'occupe de votre rangée) et ne retranscrivez vos réponses qu'après vous être relu soigneusement.
- 3) Votre QCM ne doit pas être souillé, froissé, plié, écorné ou porter des inscriptions superflues, sous peine d'être rejeté informatiquement et de ne pas être corrigé.
- 4) Si vous voulez corriger votre réponse, **n'utilisez pas de correcteur** mais indiquez la nouvelle réponse sur la ligne de repentir.
- 5) Cette épreuve comporte 80 questions. Vous devez donc porter vos réponses sur les lignes numérotées de 1 à 80. Veillez à bien porter vos réponses sur la ligne correspondant au numéro de la question.

Pour chaque ligne numérotée de 1 à 80, vous vous trouvez en face de 2 possibilités :

- ▶ soit vous décidez de ne pas traiter cette question, la ligne correspondante doit rester vierge.
- ▶ soit vous jugez que la question comporte une bonne réponse : vous devez noircir l'une des cases A, B, C, D, E

# Complétez les phrases à l'aide des mots ou groupes des mots proposés. Noircissez ensuite la case correspondant à votre choix sur la grille de réponses.

1.	Today the percentage custody compared v		_	_ to 28% of the entire p	population held in youth
	A) were increased	B) increase	C) has increased	D) was increased	E) increasing
2.	The truth is that we state.	do not need any	more reports to tell	us that racial equality ir	Britain is in a
	A) public	B) pitiful	C) passionate	D) plain	E) police
3.	An exhibition has influenced culture.	-	-	countless ways in which	the surrealist movement
	A) at	B) above	C) through	D) to	E) in
4.	Afterto the	surrealists and the	heir work, visitors ar	e led through three atm	ospherically lit rooms.
	A) being introduced	B) introducing	C) introduced	D) having introduced	E) had introduced
5.	Peat lands are under and southern latitud		_	is warming the	chilly and moist northern
	A) what	B) who	C) which	D) whose	E) where
5.	With reality series n shocked by what thi			genres, I wonder if any	of us truly
	A) were	B) are	C) was	D) is	E) would
7.	In 2018, the pollster Queen in	rs <i>YouGov</i> , found	l that almost a third o	of Britons said they had	1 "seen or met" the
	A) life	B) thought	C) Majesty	D) person	E) palace
8.	_		inguage of their new Islamist terror attacl		courage their children to
	A) way	B) area	C) pitch	D) light	E) prayers
9.	As the Donald Trun	np era draws to a	close, many world l	eaders area sig	gh of relief.
	A) pushing	B) breathing	C) shouting	D) ordering	E) making
10	The EU unemployunemployment wa	_		3 level in 2018, while	the in US youth
	A) spike	B) spout	C) speed	D) spell	E) speak

11.	Youth unemploy	mentlong	-term damage to soc	eiety.	
	A) makes	B) holds	C) warns	D) carries out	E) does
12.		reading books winitate other		own, because I have	a dreadful tendency to
	A) person's	B) being's	C) people's	D) ones	E) peoples
13.	Lewis Hamilton dreams"		ning a seventh world	l championship would	be a feat "far beyond his
	A) strongest	B) wildest	C) wilder	D) stronger	E) lighter
14.			lay to the pandemic, ause more than disco		n on the vaccine news by
	A) shares	B) benefits	C) profits	D) turnover	E) business
15.	As we pass throu	gh the meadow, W	ayne talks about his	grandfather, who lived	·
	A) nearby	B) close	C) proximity	D) in reach	E) next to
16.		either he nor his w t their priorities ha		nat would have happene	ed Sutcliffe been
	A) has	B) have	C) had	D) have had	E) had had
17.	According to Fac Republicans.	cebook's own rese	arch, the ban is like	ly to hurt the Democra	ts more than the
	A) hardly	B) lightly	C) mostly	D) gladly	E) slightly
18.	The company spe	ent more than \$200	m to deny drivers th	e wages and benefits _	they were entitled.
	A) that	B) to whom	C) what	D) to which	E) where
19.	TikTok has denie		reat but said it is still	trying to work with the	administration to resolve
	A) them	B) its	C) long	D) whose	E) it's
20.	The use of the w	vord "tipsy" captu	res the sense of a b	rightening of the spirit	s and a loosening of the
	A) cupboard	B) screws	C) dirt	D) tongue	E) change

## **Surge in New Virus Cases Seems to be Dropping**

_			in Germany and France) over the pane	ce, generating hopes that demic.
weeks with numbers	s of confirmed cas was credited with	es hitting records and o	contact-tracing efforts l	rther strain in the coming being overwhelmed even and is still in better shape
=		t "lockdown light" on ools and shops remain		aurants, bars, sports and
` · ·			d, and there were more the country's first epic	e virus patients in French demic in the spring.
But the (25) patients in hospitals		-	n dropping for 10 days,	, and the number of virus
21. A) contagion	B) control	C) custody	D) crisis	E) change
22. A) wholly	B) neatly	C) likely	D) fully	E) beauty
23. A) opened	B) shut	C) locked	D) opening	E) open
24. A) in	B) of	C) from	D) at	E) for
25. A) crowd	B) figure	C) hundreds	D) number	E) unit

## **Book Review: The Mutant Project - Inside the Global Race to Genetically Modify Humans**

Advances in medicine often (26) advances in ethics. Scientists are constantly discovering new echniques, procedures and treatments that can alter certain conditions or, in some cases, eradicate disease. Yet, just because we can prolong human life, should we? What, for example, are the long-term risks of the way chemotherapy changes human cellular structure? What are the consequences of genetic editing to create and shape human life? With scalpel-like precision, anthropologist Eben Kirksey carves away at (27) questions in his latest book.				
The book opens in Hong Kong in November 2018, at the Second International Summit on Human Genome Mapping where Chinese researcher, Jiankui He, (28) the news that he has manipulated the genes of freshly fertilized eggs, creating the world's first "edited" babies. At the conference, Jennifer Doudna, a pioneer in the use of a new genetic engineering tool, comments that she knew this day (29) but imagined it to be far into the future. Drawing on conversations with Doudna and other scientists, as well as with medical doctors, corporate lobbyists and biotechnology entrepreneurs, Kirksey follows the tool around the world, seeking to discover the ways that genetic engineering will transform humanity.				
be allowed to choos condition by tinker projects, evolving o	te the genetic make ing with DNA? In ver time in respons 0), but he	eup of their children? the end, Kirksey conse to various diseases urges caution, pruder	cutting-edge genetic meditions and treatments. We can can be can determined and care as we make	ly change the human s are ongoing mutant control our biological
26. A) outpour	B) outrun	C) output	D) outlaw	E) outfit
27. A) these	B) that	C) this	D) them	E) they
28. A) shatters	B) breaks	C) is manipulating	D) snaps	E) bends
29. A) will come	B) would come	C) had come	D) have come	E) is coming
30. A) excise	B) extol	C) exterminate	D) extend	E) extent

# Complétez les phrases à l'aide des mots ou groupes des mots proposés. Noircissez ensuite la case correspondant à votre choix sur la grille de réponses.

31.	When the police	arrived at the COV	ID party, they realis	sed it had got out of	
	A) hand	B) brain	C) eye	D) heart	E) foot
32.		e news agency, for d demanded an inq		orked, condemned the	alleged attack on thei
	A) what	B) why	C) whom	D) whose	E) when
33.	The president's	racist comments ha	ve the flame	s of division in the co	untry.
	A) lit	B) fanned	C) waved	D) opened	E) matched
34.	COVID confine	ment has been toug	h for many but for o	thers there are silver	
	A) rings	B) linen	C) moons	D) bells	E) linings
35.	The murderer has a plumber, or a s	•	nto the flats of elderly	women living alone b	oy an electrician
	A) impressing	B) imprisoning	C) improving	D) impersonating	E) implying
36.	In New York the	ere have been COV	ID in Staten	Island and in Buffalo.	
	A) hotlinks	B) hotspots	C) hotpots	D) hothouses	E) hotspurs
37.	Scotland could school child all		K nation to provide	free breakfasts and lu	unches to every primary
	A) over	B) square	C) through	D) round	E) in
38.		ider suggested the		osturing, and that the	re was confusion at the
1	A) table	B) chair	C) surface	D) politics	E) count
39.	Governments ha	ive pledged to stop	the of plastic	e pollution into the sea	s in the next 10 years.
	A) flow	B) flux	C) flax	D) flag	E) flop
40.	Johnson was opp	posed by 55 of his	own MPs, 16	did not vote or abstai	ned.
	A) which	B) who	C) while	D) what	E) why

### 'Covid ended our marriage': The Couples who Split in the Pandemic

	Around the world, previously happy couples are splitting up and (41) are divorcing. The stress of the pandemic has been blamed by some, while others say it has highlighted old problems.			
her home in Nigeria	•	, "I confronted him abo		the phone from d was, 'How did you get
childcare, chores ar crisis has left many	Cooped up together in homes all over the world, many of us have felt the strain on our relationships. Juggling childcare, chores and work, worrying about health, finances and the state of the world, the global Covid-19 crisis has left many of us also navigating a domestic crisis of our (43) behind closed doors. For some, like Reni, the close confinement of lockdown has also meant discovering secrets and having to deal with the fallout.			
	n Florida, says after an			n. Dr Marni Feuerman, f lockdown, she too saw
				division of labour in the g has been thrown into
A survey by the UK charity Relate in July found 8% of people said lockdown had made them realise they needed to end their relationship but 43% said lockdown (45) them closer.				
41. A) a lot of	B) much	C) many	D) several	E) few
42. A) down	B) through	C) beyond	D) close	E) up
43. A) self	B) own	C) soul	D) keep	E) mine
44. A) dip	B) din	C) dish	D) duck	E) dig
45. A) ought	B) bough	C) bought	D) sought	E) brought

## NASA to Pay Company \$1 to Collect Rocks from Moon

NASA is paying a 0	NASA is paying a Colorado-based company \$1 to collect a small sample of rocks from the moon.			
for a total of \$25,00 and a woman to the	Lunar Outpost is among four firms awarded contracts to <b>(46)</b> moon soil, for the US space agency, for a total of \$25,001. NASA will use the soil in its Artemis programme, which aims to send the next man and a woman to the moon by 2024. It is also trying to establish a business model for the extraction, sale and use of off-Earth resources.			
NASA will be paying the companies for individual collections of lunar soil between 50g and 500g in (47) "The companies will collect the samples and then provide us with visual evidence and other data that they've been collected," a spokesman for NASA commented in a statement. Once this has happened, ownership of the material will transfer to NASA.				
The funding is so lo development or tran			ollection of the soil, not a	ny of the companies'
The fee is not the motivation for these companies. There are expected to be many scientific benefits to the mission, (48) allowing firms to practice extracting resources from the lunar surface. Mr Cyrus called it "a paradigm shift in the way society thinks about space exploration".				
Among the other winning bids, Japan's "Ispace" will be paid \$5,000 for its proposed collection in 2022 on the Moon's north-eastern near side. "The innovation here is not of financial value but of encouraging business and legal norms of (49) a market of buyers and sellers outside of Earth's constraints," she added.				
1 0		•	ina conducts its own luncon its way (50) to	-
46. A) relieve	B) receive	C) retrieve	D) reprieve	E) deceive
47. A) height	B) length	C) depth	D) weight	E) thrust
48. A) such as	B) so that	C) much though	D) such that	E) as though
49. A) creation	B) create	C) creating	D) to create	E) created
50. A) up	B) back	C) in	D) at	E) above

## Disruption After 'Thundersnow' Hits Scotland

sound of explos	Police Scotland has reassured residents in Edinburgh after hundreds of people reported being woken by the bound of explosions. However, police said that what people were actually hearing was the phenomenon known as "Thundersnow". Two "extraordinarily loud" thunder (51) were heard over the capital just pefore 05:00.				
Some residents i sound, which is	The snow caused disruption across many areas, including temporarily closing the Queensferry Crossing. Some residents in Midlothian, reported what they thought was a bomb exploding or a building collapse. The sound, which is created when thunder and lightning combine with a heavy snowstorm, also caused dozens of car alarms to go (52)				
of the autumn/wi In the Scottish warned that train to check their pla	Borders, schools in journeys across mans before setting (	Some schools and were open but som ultiple routes were f 54)	nurseries have been close ne bus services were no facing "significant disrupt	making it the coldest night d due to the wintry weather. of operating. ScotRail also tion", and asked passengers o higher ground as the day	
goes (55)		mu snow was expec	ted to become commed t	o inglier ground as the day	
51. A) claps	B) bangs	C) booms	D) clanks	E) squeaks	
52. A) on	B) up	C) round	D) off	E) under	
53. A) long	B) far	C) much	D) often	E) many	
54. A) off	B) up	C) in	D) back	E) forward	
55. A) up	B) through	C) back	D) toward	E) on	

## Time Magazine's Kid of the Year Gitanjali Rao Aims to Solve World's Problems

A teenage scientist and inventor named Time magazine's first-ever "Kid of the Year" has said she hopes to aspire others to come up with ideas to "solve the world's problems". Gitanjali Rao, 15, has invented echnologies including a (56) that can identify lead in drinking water, and an app that detects yberbullying. She was (57) from more than 5,000 US nominees for the landmark title. "If I can do to, you can do it, and anyone can do it," she said.					
In an interview for	Гime magazine, Ms	Rao said that she feel	s she does not look like "yo	our typical scientist".	
shifted not only fro	Everything I see on TV is that it's an older, usually white man as a scientist," she said. "My goal has really shifted not only from creating my own ways to solve the world's problems, but inspiring others to do the same as well because, from personal experience, it's not easy when you don't see anyone else (58)				
Ms Rao, from the U	JS state of Colorado	o, said there are many	issues that need to be solve	ed.	
facing old problem pandemic, and we're	as that still exist," e also still facing hu	she told Time. "We'r uman-rights issues. Th	er seen before. But then at re sitting here in the mide ere are problems that we d with the introduction of te	dle of a new global id not create but that	
	•	lade for Ms Rao. She st test to detect lead-co	was (59) named "a ontaminated water.	America's top young	
Time magazine began naming its "Man of the Year" in 1927, and later updated it to Person of the Year. Last year, Greta Thunberg, the <b>(60)</b> schoolgirl who inspired a global movement to fight climate change, became the youngest person ever to be chosen by the magazine. Time said the new "Kid of the Year" ittle was a "barometer for the rising leaders of America's youngest generation".					
56. A) devise	B) device	C) divine	D) devolve	E) develop	
57. A) choose	B) chose	C) chosen	D) choice	E) chooses	
58. A) love	B) adore	C) fancy	D) savour	E) like	
59. A) before	B) in front	C) previously	D) beforehand	E) prior to	
60. A) Swede	B) Swedish	C) Sweden	D) Suede	E) Swedes	

### **Cultivated Meat**

Cultured meat, produced in bioreactors without the (61) of an animal, has been approved for sale by a regulatory authority for the first time. The development has been hailed as a landmark moment across the meat industry.
The "chicken bites", produced by the US company <i>Eat Just</i> , have passed a safety review by the Singapore Food Agency and the approval <b>(62)</b> open the door to a future when all meat is produced without the killing of livestock, the company said.
Dozens of firms are developing cultivated chicken, beef and pork, with a view to (63) the impact of industrial livestock production on the climate and nature crises, as well as providing cleaner, drug-free and cruelty-free meat. (64), about 130 million chickens are slaughtered every day for meat, and million pigs. Of all the mammals on Earth, 60% are livestock, 36% are humans and only 4% are wild.
The cells for Eat Just's product (65) in a 1,200-litre bioreactor and then combined with plant-based ingredients. Initial availability would be limited, the company said, and the bites would be sold in a restaurant in Singapore. The product would be significantly more expensive than conventional chicken until production was (66) up, but <i>Eat Just</i> said it would ultimately be cheaper. The cells used to start the process came from a cell bank and did not require the slaughter of a chicken because cells can be taken from biopsies of live animals. The nutrients supplied to the growing cells were all from plants.
The growth medium for the Singapore production line includes foetal bovine serum, which is extracted from foetal blood, but this is largely removed before consumption. A plant-based serum would be used in the next production line, the company said, but was not available when the Singapore approval process began two years (67)
A series of scientific studies have shown that people in rich nations eat more meat than is healthy for them or the planet. Research shows cutting meat consumption is vital in tackling the climate crisis and some scientists say this is the best single environmental action a person can take. The companies developing laboration meat believe this is the product most likely to wean committed meat-eaters (68) traditional sources. Vegan diets are viewed as unappealing by some, and plant-based meat replacements are not always regarded as replicating the texture and flavour of conventional meat. Meat cultivated in bioreactors also avoids the issues of bacterial contamination from animal waste and the overuse of antibiotics and hormones in animals
Gerhardt said he expected cultured meat would replace cuts of traditional meat, but that plant-based products which were (69) expensive, were more likely to replace burgers and sausages. He said cultivated meat was unlikely to become mainstream for some years, until it matched the lower cost of conventional meat.
Hsin Huang, the secretary general of the International Meat Secretariat, added that livestock are currently essential to the livelihoods of an estimated one (70) poor people globally. He said the IMS believed strongly in consumer choice, with appropriate labelling and regulation.

61. A) butcher	B) kill	C) dispatch	D) execution	E) slaughter
62. A) could	B) must	C) should	D) has to	E) follows
63. A) raising	B) slashing	C) mounting	D) lower	E) higher
64. A) But	B) Especially	C) Forthwith	D) Currently	E) Lately
65. A) grew	B) are growing	C) is growing	D) are grown	E) is grown
66. A) starred	B) scaled	C) shored	D) sewn	E) stirred
67. A) since	B) ago	C) later	D) afore	E) past
68. A) off	B) on	C) out	D) up	E) to
69. A) least	B) more	C) most	D) fewer	E) less
70. A) hundred	B) billions	C) hundreds	D) thousands	E) billion

## Nike Japan Advertisement on Teenage Bullying and Racism Sparks Debate

A video made by Nike Japan that explores bullying and racism using three schoolgirl footballers has (71) praise and outrage online, including calls to boycott the company's products.
The Nike ad, entitled "The Future Isn't Waiting", depicts three football-playing teenage girls from different (72): one is Japanese, another is Korean and the third has a black father and Japanese mother. In one scene, the mixed-race girl is surrounded by a group of classmates who touch her hair. The Korean girl is shown reading on her smartphone about the "zainichi problem" – a word used to describe ethnically Korean (73) who are "staying in Japan". The Japanese girl, meanwhile, is bullied at school and struggles to cope with parental pressure to achieve academically. In the end, the three are united by a desire to confront (74) problems and prove themselves through their love of football.
The advertisement's message clearly riled members of Japan's online right, many of whom commented using pseudonyms:
"Is Japan really such a country full of discrimination? It feels like you're creating a false impression of Japan," said one user quoted by Soranews24.com. Another wrote: "Nowadays, you often see one or two people of different nationalities going to school perfectly peacefully. The one that's prejudiced is Nike." "Is it so much fun to blame Japan?" another asked.
A (75) down through the first 50 or so comments on the site revealed several remarks by people saying they would never buy Nike products again.
More measured critics said it misrepresented modern Japanese society.
Japan is a (76) homogenous society, but the heroics of the country's multiracial rugby team at last year's world cup and the success of tennis star Naomi Osaka, who has a Japanese mother and Haitian father, are challenging old ideas about (77) it means to be Japanese.
Osaka, who was named the world's highest-earning female athlete earlier this year, is celebrated in the country of her birth, but her (78) to tennis stardom revealed problematic attitudes in some sections of Japanese society. An animated ad by one of Osaka's sponsors, portrayed her with pale skin (79) brown hair and Caucasian facial features, while a standup comedy act said she "looked sunburned" and "needed some bleach".  Nike has not commented on the controversy but said on its website it believed in the ability of sport to transform lives.
"We have long listened to minority voices, supported and spoken for causes that fit our values," it said "We believe sports have the power to show what a <b>(80)</b> world looks like, to bring people together and encourage action in their respective communities."

71. A) animated	B) heartened	C) exalted	D) enlivened	E) sparked
72. A) backups	B) backloads	C) backgrounds	D) backwoods	E) backflips
73. A) person	B) persons	C) people	D) humans	E) men
74. A) my	B) their	C) her	D) his	E) one's
75. A) manuscript	B) paper	C) document	D) scroll	E) scripture
76. A) relative	B) relatively	C) relatives	D) relation	E) relate
77. A) who	B) when	C) that	D) what	E) if
78. A) raise	B) arise	C) rise	D) risen	E) arose
79. A) curving	B) winding	C) meandering	D) turning	E) wavy
80. A) round	B) well	C) best	D) greatest	E) better