

Travail estival

I Français - Philosophie

Travail préparatoire en Lettres-Philosophie

• Le programme de Lettres-philosophie des classes préparatoires scientifiques session 2023-2024 a pour thème « **Le Travail** ». Les trois œuvres à l'étude sont :

- ❖ Virgile, *Géorgiques*, traduction de Maurice Rat, Flammarion, GF, n° 1644.
- ❖ Simone Weil, *La Condition ouvrière*, édition de Raphaël Ehrsam, Flammarion, GF, n° 1645.
- ❖ Michel Vinaver, *Par-dessus bord*, forme hyper-brève, postface de Simon Chemama, Editions Actes Sud, collection Babel.

• Durant les vacances d'été, les étudiants devront se procurer ces trois ouvrages – **impérativement dans les éditions prescrites (en prenant soin de vérifier les numéros de collection)** -, puis les lire, prendre des notes et prélever dans chacun d'eux des citations dans la perspective du thème afin de se constituer un répertoire. Il est aussi recommandé d'étudier les dossiers sur le thème du travail présents dans certains ouvrages.

• Parmi les **ouvrages facultatifs** donc la lecture pourrait apporter un éclairage complémentaire sur le thème retenu, quelques suggestions :

- Arendt, *Condition de l'homme moderne*, 1958.
- Arvon, *La Philosophie du travail*, 1973.
- Bataille, *La part maudite*, 1949.
- Baudrillard, *La société de consommation*, 1970.
- Bouvier, *Le Travail*, 1991.
- Collectif, *Le Travail*, recueil de textes, édition établie par Joël Jung, Flammarion, GF n°3025, 2018.
- Crawford, *Eloge du carburateur*, 2009.
- Durkheim, *De la division du travail social*, 1893.
- Gomez, *Le travail invisible*, 2019.
- Grimaldi, *Le Travail*, 1998.
- Kennedy Toole, *La Conjuration des imbéciles*, 1980.
- Lafargue, *Le Droit à la paresse*, 1880.
- Méda, *Le travail, une valeur en voie de disparition ?*, 2021.
- Mourgues (de), *Le travail humain*, 1979.
- Nothomb, *Stupeur et tremblements*, 1999. Œuvre adapté au cinéma en 2002 par Alain Corneau.
- Russell, *Eloge de l'oisiveté*, 1932.
- Vaillant, *325 000 francs*, 1955.
- Vernant et Vidal-Naquet, *Travail et esclavage en Grèce ancienne*, 1988.

D'autre part, le visionnage de certaines œuvres cinématographiques serait susceptible de compléter votre préparation :

- *Metropolis* de Fritz Lang, 1927.
- *Les Temps modernes* de Charlie Chaplin, 1936.
- *Les Raisins de la colère* de John Ford, 1940.
- *Le Voleur de bicyclette* de Vittorio De Sica, 1948.
- *Alexandre le bienheureux* d'Yves Robert, 1968.
- *Germinal* de Claude Berri, 1993.
- *Ressources humaines* de Bertrand Cantet, 2000.
- *La Loi du marché* de Stéphane Brizé, 2015.
- *Merci Patron !*, de François Ruffin (documentaire), 2016.
- *Ceux qui travaillent* d'Antoine Russbach, 2019.

II Anglais

ENGLISH: WORK TO BE COMPLETED FOR 01/09/22

INTERNATIONAL PHONETIC ALPHABET: PHONEMES OF ENGLISH

1	I	2	i:	3	ʊ	4	u:	5	ɪə	6	eɪ	7	e
8	<i>big</i>	9	<i>week</i>	10	<i>look</i>	11	<i>room</i>	12	<i>idea</i>	13	<i>face</i>	14	<i>then</i>
15	ə	16	ɜ:	17	ɔ:	18	ɔɪ	19	əʊ	20	æ		ʌ
	<i>photographer</i>		<i>work</i>		<i>door</i>		<i>employ</i>		<i>go</i>		<i>that</i>		<i>up</i>
21	ɑ:	22	ɒ	23	eə	24	aɪ	25	aʊ	26	kə'mju:ni,keɪʃən ○ ○ ○ ○ ○ ○		
	<i>far</i>		<i>stop</i>		<i>share</i>		<i>reply</i>		<i>now</i>		(primary & secondary stress)		
28	p	29	b	30	t	31	d	32	f	33	dʒ	34	h
	<i>appear</i>		<i>ban</i>		<i>term</i>		<i>adapt</i>		<i>church</i>		<i>judge</i>		<i>help</i>
35	k	36	g	37	f	38	v	39	θ	40	ð	41	l
	<i>concern</i>		<i>govern</i>		<i>infer</i>		<i>involve</i>		<i>thug</i>		<i>that</i>		<i>link</i>
42	s	43	z		ʃ		ʒ		m	44	n	45	ŋ
	<i>sound</i>		<i>because</i>		<i>share</i>		<i>usual</i>		<i>amazed</i>		<i>known</i>		<i>ring</i>
	r		'aɪðə'ɔ:r								w		j
	<i>raise</i>		<i>either or (vowel liaison)</i>								<i>wonder</i>		<i>yellow</i>

I. GRAMMAR

VERB GROUPS *Revise the constructions and properties of the Simple Present and Preterit (affirmative, negative & interrogative forms).*

NOUN GROUPS *Revise the use of articles **a/an**, **Ø**, **the**, and the position and organisation of adjectives.*

II. PHONOLOGY

Memorise the symbols used to transcribe the sounds of the English language (see the chart “The Phonemes of English”, adapted from the International Phonetic Alphabet, on the previous page). The exercises below will provide a support to help you achieve this. To check the pronunciation of words, and to establish precisely the link between the symbols and the sounds they transcribe, you can consult, for example, wordreference.com.

1. Reading phonetic transcriptions.

Using standard transcription, write down the following words:

- | | |
|--------------------|--------------------|
| 1. 'tɑ:təl | 6. dɪəlz |
| 2. 'pʌblɪft | 7. 'fəʊkəsɪz |
| 3. 'rɪtən | 8. 'ɔ:θəʳ |
| 4. 'teɪkən | 9. 'ɑ:gju: |
| 5. m'tɑ:təld | 10. rɪ'fɜ:r |

2. Writing phonetic transcriptions.

Write down the following words using phonetic symbols:

- | | |
|--------------------|---------------------|
| 1. article | 6. magazine |
| 2. highlight | 7. journalist |
| 3. British | 8. extent |
| 4. American | 9. underlines |
| 5. current | 10. describe |

III. CURRENT AFFAIRS

Over the summer period, read the press regularly using reliable sources such as The Guardian, The New York Times, The Washington Post and The Economist. Select five significant articles from different themes (social, political, scientific, technological and economic), provide the titles, sources and dates of publication, and explain succinctly the main ideas dealt with in each.

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IV. WRITTEN COMPREHENSION & LANGUAGE WORK

Complete the tasks related to the document below.

Nationalism Fuelled by Economic Discontent in European Separatist Movements

In modern Europe, the current recession appears to be spurring new independence efforts based on historic differences. Besides the economic turmoil, the otherwise peaceful Eurozone provides a forum for political separatists to voice their opinion and move their agendas forward.

Historically, national schisms involved violence and war. Thirteen member states of the United States of America tried to go their own way in the mid-19th century, sparking a devastating conflict. But in modern Europe, separatist movements in the United Kingdom and Spain progress towards what could be entirely peaceful separations.

Of the four countries that comprise the UK, Scotland and England boast the only relationship not rooted in English conquests. Although Scotland had to win back its independence from Norman English invaders in Medieval times, the modern union started when a Scottish king inherited the English crown in 1603 and was cemented by mutual laws joining the countries in 1706. Now Scottish citizens, many of them long resentful of what they see as English cultural, political, and economic dominance, are set to vote in a referendum to decide whether Scotland will once again go it alone.

Modern Spain contains even more fractured parts than the UK. It comprises 17 autonomous communities and two autonomous cities, political entities based on what the Spanish consider to be separate nationalities among their population—remnants of what once were independent kingdoms and principalities on the Iberian Peninsula.

In the north-eastern corner of the nation, the region of Catalonia once made up the bulk of the Principality of Catalonia (along with what is now the Catalan region of France). It has its own language, Catalan, with a rich literary tradition. Many Catalonians and immigrants living there think—especially in light of current economic problems—that they would be better off if they were independent from Spain. As in Scotland—and unlike some separatists in the Basque Country of north central Spain and southwestern France who previously sought independence by violent means such as terrorist bombings—the Catalonians want a bloodless divorce.

Catalonia, whose capital is Barcelona, has yet to secure a referendum. The Spanish government has resisted any move towards independence on grounds similar to those held by US President Abraham Lincoln in 1860: division of the Spanish nation is unconstitutional. Independence supporters, a majority in the region, wish to change Spain's constitution to allow them a vote on full sovereignty. The Catalanian parliament voted overwhelmingly in January to begin a process toward holding a vote on the issue.

High unemployment and poverty motivate the movements in Scotland and Catalan, but the two regions have very different resources. Like its northern neighbour Norway, Scotland owns rich oil wells in the North Sea, but all wells eventually run dry, so that revenue will not last indefinitely. Catalonia, meanwhile, provides 20 percent of Spain's GDP through tourism and other industries. Residents wish to see their taxes reinvested in local schools and infrastructure rather than to support a national economy struggling in the global recession. "I'm not sure that all this rise in nationalism would have occurred without the economic recession," says Toni Dorca, a native of Catalonia and professor at Macalester College in St. Paul, Minnesota.

National division, however, remains uncharted territory for the Union. There is no guarantee that either Scotland or an independent Catalonia could achieve entry to the EU on its own. Nations throughout the world are watching these dissenting movements with interest and concern.

N. Hertel, BestThinking.com, June 2014

i. Understanding the document

1. §1: Provide synonyms for the underlined words.
2. §2: What historical event is referred to?
3. §3: List the countries referred to in the underlined section.
4. §3: What do many Scots dislike?
5. §5: List the different forms of the underlined verb.
6. §6: Provide synonyms for the underlined words.
7. Why is Abraham Lincoln referred to?
8. §§7-8: Explain the underlined sections.
9. §8: Reformulate the main idea expressed in this paragraph.

ii. Pronunciation

Identify the following words which appear in the text:

- | | |
|----------------------|--------------------|
| 1. ə'tʃi:v | 6. rɪ'meɪnz |
| 2. kəm'praɪzɪz | 7. rɪ'zɔ:sɪz |
| 3. 'kʌntri:z | 8. tə'wɔ:dz |
| 4. 'ekə,nɒmɪk | 9. ,ʌn'lɑ:k |
| 5. 'læŋgwɪdʒ | 10. 'ju:nɪən |

III Sciences

1) Cours à connaître :

- Dérivées et allures des courbes de $x \mapsto e^x$, $x \mapsto e^{-x}$, $x \mapsto \ln(x)$, $x \mapsto \frac{1}{x}$, $x \mapsto x^2$, $x \mapsto \sin(x)$, $x \mapsto \cos(x)$.
- Dérivée de $t \mapsto A\cos(\omega t + \varphi)$, $t \mapsto e^{\alpha t}$.
- Les formules trigonométriques :
 - $\cos(a + b) = \cos(a)\cos(b) - \sin(a)\sin(b)$
 - $\sin(a + b) = \sin(a)\cos(b) + \sin(b)\cos(a)$
 - $\cos(a)\cos(b) = \frac{1}{2}(\cos(a + b) + \cos(a - b))$
 - $\sin(a)\sin(b) = \frac{1}{2}(\cos(a - b) - \cos(a + b))$
 - $\sin(x)^2 = \frac{1 - \cos(2x)}{2}$
 - $\cos(x)^2 = \frac{1 + \cos(2x)}{2}$
- Aire : d'un rectangle, d'un carré, d'un disque, d'un triangle, d'un parallélogramme, d'un cylindre fini, d'une sphère.
- Volume : d'un parallélépipède (cas du cube), d'une boule, d'un cylindre fini, d'un cône/d'une pyramide/d'un tétraèdre ($\frac{1}{3} \times \text{base} \times \text{hauteur}$).
- Principales unités du système international (S.I.) (longueur, masse, temps, température, force, pression, intensité électrique, etc.).
- La loi d'Ohm $U=RI$
- La différence entre poids et masse et utilisation de la formule $P=Mg$.
- La différence entre une pression et une force et le lien entre les deux.

2) Exercices plus ou moins élémentaires :

Exercice

Résoudre dans \mathbb{R} les équations ci-dessous :

$$\begin{array}{lll} \text{(a)} \ x^2 + 1 = 2x; & \text{(k)} \ x^4 = 1; & \text{(q)} \ \frac{x-2}{x+2} - \frac{x+2}{x-2} = \frac{18}{x^2-4}; \\ \text{(d)} \ x^3 = x; & \text{(n)} \ (x^3 - x)^2 - x^2 = 0; & \text{(m)} \ x^4 - 4x^2 + 3 = 0; \end{array}$$

Exercice

Résoudre les inéquations suivantes :

$$\begin{array}{lll} \text{(a)} \ 6x + 5 < -4x + 3; & \text{(j)} \ \frac{4}{x-1} - \frac{3}{x+2} > 0; & \text{(c)} \ x^2 < 4x; \\ \text{(k)} \ \frac{x}{2-x} < 1; & \text{(m)} \ \frac{2x+1}{x+1} \geq x; & \end{array}$$

Exercice

- Si $S = \frac{R1}{R2} \times (E - S)$, montrer que $\frac{S}{E} = \frac{R1}{R1 + R2}$
- Si $S \times \frac{D + C}{D} = \frac{C \times E + S \times A}{A + C}$, montrer que $\frac{S}{E} = \frac{C \times D}{A \times C + C \times D + C^2}$

Exercice

Comparer les expressions A et B suivantes :

$$\text{(a)} \ A = \frac{1}{\sqrt{2+1}}, \ B = \sqrt{2} - 1; \quad \text{(b)} \ A = \sqrt{7} + 3, \ B = \sqrt{3} + 4; \quad \text{(c)} \ A = \sqrt{2 + \sqrt{3}}, \ B = 2.$$

Exercice

Résoudre dans \mathbb{R} les équations ou inéquations suivantes :

$$(b) \sqrt{x^2 - 3x - 3} = x + 2; \quad (e) \sqrt{x^2 + 5x + 3} < x + 2;$$

Exercice

On rappelle que la *valeur absolue* d'un réel x est définie par $|x| = \begin{cases} x & \text{si } x \geq 0, \\ -x & \text{si } x < 0. \end{cases}$ Résoudre les équations et inéquations suivantes.

$$\begin{array}{l} (a) |x| = 3; \\ (c) |x| \leq 3; \\ (d) |x| \geq 3; \end{array} \quad \left| \begin{array}{l} (g) |x - 2| \leq 4; \\ (j) |x^2 - 8x + 11| = 4; \\ (l) |x + 1| = |2x - 3|; \end{array} \right. \quad \left| \begin{array}{l} (m) |1 - 2x| = x + 1; \\ (o) |x^2 + 5x + 3| < x + 2; \\ (q) |x| + |x + 1| = 2; \end{array} \right.$$

Exercice

$$1. \frac{1}{V+x} + \frac{1}{V-x} = \quad 2. \frac{1}{\frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}} = \quad 3. 1 + \frac{1}{1 + \frac{1}{1+a}} =$$

Exercice Dans le plan euclidien munit d'un repère orthonormé on considère les points $A(1, -2)$ et $B(-1, 4)$. Déterminer une équation de la droite (AB) .

Exercice

Déterminer l'ensemble de définition, puis calculer la dérivée des fonctions suivantes.

$$\begin{array}{l} (a) f_1 : x \mapsto \frac{x^2 + 1}{x - 1}; \\ (b) f_2 : x \mapsto \ln(x^2 - 1); \\ (c) f_3 : x \mapsto \cos(2x) - \sin(3x); \\ (d) f_4 : x \mapsto \exp(x^2 - 1); \\ (e) f_5 : x \mapsto \frac{\cos^5(x)}{\ln x}. \end{array}$$

Exercice

Écrire les nombres complexes suivants sous forme algébrique et calculer leur module :

$$z_1 = \frac{1}{i}; \quad z_3 = \frac{1+2i}{1-3i}; \quad z_4 = \frac{(2+3i)^2}{4-2i}; \quad z_5 = \frac{1+i\sqrt{3}}{\sqrt{3}-i};$$

Exercice

Déterminer le module et un argument de $\left(\frac{1+i\sqrt{3}}{1-i}\right)^{20}$