The bulging flanks of row on receding row and tier above tier of bottles glinted with innumerable rubies, and among the rubies moved the dim red spectres of men and women with purple eyes and all the symptoms of lupus. The hum and rattle of machinery faintly stirred the air.

“Give them a few figures, Mr. Foster,” said the Director, who was tired of talking.

Mr. Foster was only too happy to give them a few figures.

Two hundred and twenty metres long, two hundred wide, ten high. He pointed upwards. Like chickens drinking, the students lifted their eyes towards the distant ceiling.

Three tiers of racks: ground floor level, first gallery, second gallery.

The spidery steel-work of gallery above gallery faded away in all directions into the dark. Near them three red ghosts were busily unloading demijohns from a moving staircase.

The escalator from the Social Predestination Room.

Each bottle could be placed on one of fifteen racks, each rack, though you couldn’t see it, was a conveyor traveling at the rate of thirty- three and a third centimetres an hour. Two hundred and sixty-seven days at eight metres a day. Two thousand one hundred and thirty-six metres in all. One circuit of the cellar at ground level, one on the first gallery, half on the second, and on the two hundred and sixty-seventh morning, daylight in the Decanting Room. Independent existence-so called.

“But in the interval,” Mr. Foster concluded, “we’ve managed to do a lot to them. Oh, a very great deal.” His laugh was knowing and triumphant.

“That’s the spirit I like,” said the Director once more. “Let’s walk around. You tell them everything, Mr. Foster.”

Mr. Foster duly told them.

Told them of the growing embryo on its bed of peritoneum. Made them taste the rich blood surrogate on which it fed. Explained why it had to be stimulated with placentin and thyroxin. Told them of the corpus luteum extract. Showed them the jets through which at every twelfth metre from zero to 2040 it was automatically injected. Spoke of those gradually increasing doses of pituitary administered during the final ninety-six metres of their course. Described the artificial maternal circulation installed in every bottle at Metre 112; showed them the reservoir of blood- surrogate, the centrifugal pump that kept the liquid moving over the placenta and drove it through the synthetic lung and waste product filter. Referred to the embryo’s troublesome tendency to anæmia, to the massive doses of hog’s stomach extract and foetal foal’s liver with which, in consequence, it had to be supplied.

Showed them the simple mechanism by means of which, during the last two metres out of every eight, all the embryos were simultaneously shaken into familiarity with movement. Hinted at the gravity of the so-called “trauma of decanting,” and enumerated the precautions taken to minimize, by a suitable training of the bottled embryo, that dangerous shock. Told them of the test for sex carried out in the neighborhood of Metre 200. Explained the system of labelling-a T for the males, a circle for the females and for those who were destined to become freemartins a question mark, black on a white ground.

“For of course,” said Mr. Foster, “in the vast majority of cases, fertility is merely a nuisance. One fertile ovary in twelve hundred-that would really be quite sufficient for our purposes. But we want to have a good choice. And of course, one must always have an enormous margin of safety. So, we allow as many as thirty per cent of the female embryos to develop normally. The others get a dose of male sex- hormone every twenty-four metres for the rest of the course. Result:

they're decanted as freemartins- structurally quite normal (except," he had to admit, "that they do have the slightest tendency to grow beards), but sterile. Guaranteed sterile. Which brings us at last," continued Mr. Foster, "out of the realm of mere slavish imitation of nature into the much more interesting world of human invention."

He rubbed his hands. For of course, they didn't content themselves with merely hatching out embryos: any cow could do that.

"We also predestine and condition. We decant our babies as socialized human beings, as Alphas or Epsilons, as future sewage workers or future." He was going to say "future World controllers," but correcting himself, said "future Directors of Hatcheries," instead.

The D.H.C. acknowledged the compliment with a smile.

They were passing Metre 320 on Rack 11. A young Beta- Minus mechanic was busy with screw-driver and spanner on the blood-surrogate pump of a passing bottle. The hum of the electric motor deepened by fractions of a tone as he turned the nuts. Down, down … A final twist, a glance at the revolution counter, and he was done. He moved two paces down the line and began the same process on the next pump.

"Reducing the number of revolutions per minute," Mr. Foster explained. "The surrogate goes round slower; therefore passes through the lung at longer intervals; therefore gives the embryo less oxygen. Nothing like oxygen- shortage for keeping an embryo **BELOW PAR**." Again he rubbed his hands.

"But why do you want to keep the embryo below par?" asked an ingenuous student.

"Ass!" said the Director, breaking a long silence. "Hasn't it occurred to you that an Epsilon embryo must have an Epsilon environment as well as an Epsilon heredity?"

It evidently hadn't occurred to him. He was covered with confusion.

"The lower the caste," said Mr. Foster, "the shorter the oxygen." The first organ affected was the brain. After that the skeleton. At seventy per cent of normal oxygen you got dwarfs. At less than seventy eyeless monsters.

"Who are no use at all," concluded Mr. Foster.

Whereas (his voice became confidential and eager), if they could discover a technique for shortening the period of maturation what a triumph, what a benefaction to Society!

"Consider the horse."

They considered it.

Mature at six; the elephant at ten. While at thirteen a man is not yet sexually mature; and is only full-grown at twenty. Hence, of course, that fruit of delayed development, the human intelligence.

"But in Epsilons," said Mr. Foster very justly, "we don't need human intelligence."

Didn't need and didn't get it. But though the Epsilon mind was mature at ten, the Epsilon body was not fit to work till eighteen. Long years of superfluous and wasted immaturity. If the physical development could be speeded up till it was as quick, say, as a cow's, what an enormous saving to the Community!

"Enormous!" murmured the students. Mr. Foster's enthusiasm was infectious.

He became rather technical; spoke of the abnormal endocrine co-ordination which made men grow so slowly; postulated a germinal mutation to account for it. Could the effects of this germinal mutation be undone? Could the individual Epsilon embryo be made a revert, by a suitable technique, to the normality of dogs and cows? That was the problem. And it was all but solved.

Pilkington, at Mombasa, had produced individuals who were sexually mature at four and full-

grown at six and a half. A scientific triumph. But socially useless. Six-year-old men and women were too stupid to do even Epsilon work. And the process was an all-or-nothing one; either you failed to modify at all, or else you modified the whole way. They were still trying to find the ideal compromise between adults of twenty and adults of six. So far without success. Mr. Foster sighed and shook his head.

Their wanderings through the crimson twilight had brought them to the neighborhood of Metre 170 on Rack 9. From this point onwards Rack 9 was enclosed and the bottle performed the remainder of their journey in a kind of tunnel, interrupted here and there by openings two or three metres wide.

"Heat conditioning," said Mr. Foster.

Hot tunnels alternated with cool tunnels. Coolness was wedded to discomfort in the form of hard X-rays. By the time they were decanted the embryos had a horror of cold. They were predestined to emigrate to the tropics, to be miner and acetate silk spinners and steel workers. Later on their minds would be made to endorse the judgment of their bodies. "We condition them to thrive on heat," concluded Mr. Foster. "Our colleagues upstairs will teach them to love it."

"And that," put in the Director sententiously, "that is the secret of happiness and virtue-liking what you've got to do. All conditioning aims at that: making people like their unescapable social destiny."

In a gap between two tunnels, a nurse was delicately probing with a long fine syringe into the gelatinous contents of a passing bottle. The students and their guides stood watching her for a few moments in silence.

Aldous Huxley, Brave New World (1932)

QUESTIONS

1. READING COMPREHENSION. Choose the BEST answer. (1 mark)

1. The Director of Hatcheries and Mr. Foster tell the students that
   A) from hatching, the genetic condition is previously altered from higher to lower intelligence of the embryo.
   B) during the incubation process, the sex of embryos in a significant part is altered.
   C) genetic status is altered according to embryo's caste and gender.
   D) caste, sex and strength of embryos are genetically altered.
2. During the incubation process
   A) embryonic change occurs at almost all stages of the process.
   B) the amount of oxygen is reduced as the embryo physically evolves.
   C) pituitary is increased, blood is fed and embryos are shaken.
   D) the levels of cold and heat are alternated to allow embryos to adapt to both sensations.
3. Animals are mentioned in the text
   A) as examples of maturity, food and hatching.
   B) to show the superiority of the human being, as a result of the manipulation of the process.
   C) as a stage prior to evolution in humans, since they lack intelligence.
   D) to show the different mutations they have undergone in comparison with humans.
4. In the incubation process, the following are allowed to develop:
   A) Thirty percent female embryos and seventy percent male embryos.
   B) Seventy percent freemartins and thirty percent female embryos.
   C) The number of male embryos is unspecified.
   D) One fertile female embryo in every twelve hundred embryos.

5. What is Mr. Foster's approach to human maturity?

A) Intellectual development should be accelerated and precede physical development.
B) Epsilon's physical development prevails over their intellectual development.
C) Both physical development and intellectual development should be achieved at the same time.
D) Both physical development and intellectual development depend on whether the embryos are Epsilon or Alpha.

2. CLOZE TEST: End up the paragraph using the suitable words from the chart below. (1 mark)

relish	top	down	across	endorsee	extremely	basis	along	bustle
topiary	hub	turn	base	stagnation	whizz	tippet	dropped	up
waggishly	unforeseen	flaps	nosed	peace	frolicsome	ribwort		

In the Bottling Room all was harmonious 1. _____ and ordered activity. 2. _____ of fresh sow's peritoneum ready cut to the proper size came shooting up in little lifts from the Organ Store in the sub-basement. 3. _____ and then, click! The lift-hatches flew open.
Next to the Liners stood the Matriculators. The procession advanced; one by one the eggs were transferred from their test-tubes to the larger containers; deftly the peritoneal lining was slit, the morula 4. _____ into place, the saline solution poured in . . . and already the bottle had passed, and it was the 5. _____ of the labellers. No longer anonymous, but identified, the procession marched slowly on into the Social Pedestrian Room.
"Eighty-eight cubic metres of card-index," said Mr Foster with 6. _____, as they entered.
"Containing all the relevant information," added the Director.
"Brought up to date every morning and co-ordinated every afternoon. On the 7. _____ of which they make their calculations; so many individuals, of such and such quality," said Mr Foster; "distributed in such and such quantities. The optimum Decanting Rate at any given moment. 8. _____ wastages promptly made good." "Promptly," repeated Mr Foster.
And opening a door Mr Foster led the way 9. _____ a staircase into the basement.
Two doors and a passage with a double turn ensured the cellar against any possible infiltration of the day.
"Embryos are like photograph film," said Mr Foster 10. _____, as he pushed open the second door. "They can only stand red light."

3. WORD-FORMATION: Use the words given below to form a new one that fits in each space. (1 mark)

all	abject	florid	go	large
mind	scope	soliloquy	stable	zeal

The (1)____of the workers were white, their hands gloved with a pale corpse-coloured rubber. The light was frozen, dead, a ghost. Only from the yellow barrels of the (2) ____ did it borrow a certain rich and living substance, lying along the polished tubes like butter, streak after luscious streak in long recession down the work tables. (...)
Bent over their instruments, three hundred Fertilizers were plunged, as the Director of Hatcheries and Conditioning entered the room, in the scarcely breathing silence, the (3) ____, (4) ____ hum or whistle, of absorbed concentration. A troop of newly arrived students, very young, pink and callow, followed nervously, rather (5) ____, at the Director's heels. Each of them carried a note-book, in

which, whenever the great man spoke, he desperately scribbled. Straight from the horse's mouth. It was a rare privilege.

Tall and rather thin but upright, the Director advanced into the room. He had a long chin and big, rather prominent teeth, just covered, when he was not talking, by his full, (6) ____ curved lips. Old, young? Thirty? fifty? fifty-five? It was hard to say. And anyhow the question didn't arise; in this year of (7) ____, a.f. 632, it didn't occur to you to ask it. (...)

'I shall begin at the beginning,' said the DHC, and the more (8) ____ students recorded his intention in their note-books: *Begin at the beginning*. 'These,' he waved his hand, 'are the incubators.' And opening an insulated door he showed them racks upon racks of numbered test-tubes. (...)

Still leaning against the incubators he gave them, while the pencils scurried illegibly across the pages, a brief description of the modern fertilizing process; spoke first, of course, of its surgical introduction — 'the operation (9) ____ voluntarily for the good of Society, not to mention the fact that it carries a bonus amounting to six months' salary'; continued with some account of the technique for preserving the excised ovary alive and actively developing; passed on to a consideration of optimum temperature, salinity, viscosity; referred to the liquor in which the detached and ripened eggs were kept;(...)

'Scores,' the Director repeated and flung out his arms, as though he were distributing (10) ____. 'Scores.'

But one of the students was fool enough to ask where the advantage lay.

'My good boy!' The Director wheeled sharply round on him. 'Can't you see? Can't you see?' He raised a hand; his expression was solemn. 'Bokanovsky's Process is one of the major instruments of social stability!'

4. HOMOPHONES. Complete the sentences with the appropriate pair of homophones in RP (Received Pronunciation). One of each pair appears in the text. Both homophones must be correct. (1 mark)

1. a. The tension erupted into a riot and the commander decided to ____ the mutineers back to shore.
   b. The ___ is a medium-size, reddish and grey-brown animal that adapts to cold environments.
2. a. Hard-shell luggage demands fitting of a luggage _____. Particular panniers need to be fasten onto the anchoring points of the motorbike.
   b. The derelict circus has gone to _____ and ruin these days, the town hall is debating about the restoration.
3. a. The recitation started with her having her voice perfectly well trimmed, however, by the end she became so ____ that people began to leave.
   b. When the race finished, all the competitors got their animals onto the ____ trailer.
4. a. The champion of the tourney is still up in the ____ as the scoreboard was out of order.
   b. In the past, a woman who hadn't given birth to a male was considered useless as she was not able to produce an ____ to carry the family name.
5. a. Current scientific discoveries _____ light on the origin of the universe.
   b. Among the world's oldest forms of social stratification, it seems that India's ____ system was the most complex and efficacious.
6. a. Mojang Studios managed to create a game based on a ____ who must find supplies to survive battle mobs and these became the most popular video game in 2014.
   b. After graduating, she added a ____ in Sustainable Development from the University of Chicago to her resume.
7. a. Zinc is used as a protective coating when is need to protect iron and ____ from corrosion.
   b. Kanye couldn't help it! He had to ____ the limelight in every event they attended together.
8. a. Monarchist from Wales could promptly _____ victory after the Queen's discourse.
   b. He was ready to report to the authorities as in the period worked of 2 weeks, he hadn't earned a ____.
9. a. Frontline soldiers took the wise _____ of retreating before confronting the shelling.
   b. During the Gold Rush, the diggers had to sieve the _____ sand from the creeks to gain profit.

10. a. This Manufacturer uses the flat fell_____ technique for their high-end outwear and workwear.
b. It doesn't _____ that the defendant will withdraw the motion for summary judgement.

5. SYNONYMS/ ANTONYMS. Provide a word from the text … (1 mark)

A. with the same meaning as the following:
1. dearth
2. elated
3. hassle
4. imbued
5. protuberant

B. with the opposite meaning of the following:
1. languish
2. barren
3. unfitting
4. avertible
5. apathetic

6. PHRASAL VERBS /IDIOMS. Replace the underlined words with a suitable phrasal verb or idiom. For the phrasal verbs, choose a word from the chart below, add the appropriate particle(s) and use the same form/tense as in the sentences provided. For the idioms, choose a word from the chart, add the appropriate words and fit the expression in the sentences provided. Make any other changes if necessary. There are two extra words which are not needed. (1 mark)

mustard	the candle	ahead	piece	punch	keel
moon	shape	give	a fly	catch	dawn

1. The bulging flanks of row on receding row and tier above tier of bottles <u>glinted</u> with innumerable rubies (...)
2. Mr. Foster was <u>only too happy</u> to give them a few figures.
3. (...) in the vast majority of cases, fertility is merely <u>a nuisance</u> (...)
4. His laugh was knowing and <u>triumphant</u>.
5. At less than seventy eyeless monsters. "Who are <u>no use at all</u>," concluded Mr. Foster.
6. Hasn't it <u>occurred</u> to you that an Epsilon embryo must have an Epsilon environment as well as an Epsilon heredity?
7. Nothing like oxygen-shortage for keeping an embryo <u>below par</u>.
8. We condition them to <u>thrive on</u> heat (...)
9. <u>Coolness was **wedded to** discomfort</u> in the form of hard X-rays.
10. So, we allow as many as thirty per cent of the female embryos to <u>develop</u> normally.

7. REPHRASING. Complete the second sentence so that it has a similar meaning to the first one. Use the given word. (1 mark)

1. Explained why it had to be stimulated with placentin and thyroxin. (STIMULI)
   An account…..

2. Referred to the embryo's troublesome tendency to anaemia, to the massive doses of hog's stomach extract and foetal foal's liver with which, in consequence, it had to be supplied.(PRONE)
   They offset …..

3 . We allow as many as thirty per cent of the female embryos to develop normally. (ALLOWANCE)
   Seventy…..

4. He had to admit, "that they do have the slightest tendency to grow beards". (NEGLIGIBLE)
   There was no….

5. It evidently hadn't occurred to him. He was covered with confusion. (BEWILDERED)
   The ultimate….

6. The first organ affected was the brain. After that the skeleton. (JEOPARDISED)
   Not….

7. If the physical development could be speeded up till it was as quick, say, as a cow's, what an enormous saving to the Community. (CHALK UP)
   Only after…

8. Six-year-old men and women were too stupid to do even Epsilon work. (ABILITIES)
   Even Epsilon work far……

9. But though the Epsilon mind was mature at ten, the Epsilon body was not fit to work till eighteen. (ATTAINMENT)
   Notwithstanding…..

10. They were still trying to find the ideal compromise between adults of twenty and adults of six. (CONCINNITY)
    Never….

8. WRITING. Write a text in 300 words including the following statement: (3marks)

"Words can be like X-rays if you use them properly- they'll go through anything. You read and you're pierced."
Aldous Huxley, Brave New World (1932)