



Write the answers on the answer sheet provided. Use capital letters only.

Only the answers on the answer sheet will be accepted.

I. LISTENING COMPREHENSION (6 x 1 point =6 points)

Listen to the radio discussion about the modern problem of light pollution. For questions 1-6 choose the correct answer which fits best according to what you hear.

1. The odd thing about light pollution is that most people
 - a) don't see it on a day-to-day basis.
 - b) have never witnessed it.
 - c) don't want legislation to stop it.
 - d) don't have much knowledge about it.

2. Speaking about the stars, Susan makes a comparison with twenty years ago to show that
 - a) the situation is deteriorating.
 - b) tougher legislation is needed.
 - c) cities are getting bigger.
 - d) there are fewer stars than in the past.

3. A positive result of reducing light pollution that Susan mentions is
 - a) the US could import less foreign oil.
 - b) the US wouldn't need to burn coal to produce electricity.
 - c) the US could stop importing oil after a few months.
 - d) the US could export more oil to foreign countries.

4. Which of these people does Susan not mention with reference to the light pollution problem?
 - a) criminals
 - b) pilots
 - c) drivers
 - d) amateur astronomers

5. What is the best definition of "light trespass" as described by Susan?
 - a) Using light sources which do not meet international standards.
 - b) Using too strong a light source which creates dark shadows.
 - c) Using light sources that allow light to escape into areas surrounding the parking lot, building, etc.
 - d) Using light sources that allow light to escape upwards into the sky.

6. Which of these measures does Susan **not** mention when talking about what we as individuals can do to reduce light pollution?

- a) Only buy light fittings from a recognized store.
- b) Not to use light bulbs without a cover.
- c) Contacting politicians.
- d) Use downward facing lighting.

II. READING COMPREHENSION (12 x 1 point = 12 points)

A. Read the text and choose from the sentences/ paragraphs the one that best fits each gap.
There is one extra paragraph you do NOT need to use. (6 x 1 point = 6 points)

LIBYAN OIL OUTPUT CUT

The Libyan oil industry is in the midst of its worst crisis since the 2011 civil war because of lawlessness and strikes at major petroleum facilities.

1. _____ . Operations had resumed on Sunday at the ports of Es Sider and Ras al-Unuf after a two-week stoppage. The two ports have a combined export capacity of around 600,000 barrels per day.

2. _____

Last week, Libyan Prime Minister Ali Zeidan warned of economic consequences of the off-and-on disruption to oilfield, production and export terminals. He said oil exports had plunged by 70 percent - a devastating financial setback for Libya, which relies on oil exports for nearly all of its foreign revenues.

Oil industry officials said the export terminals at the Es Sider, Amna and Sirtica oilfields had already filled up their storage tanks to capacity and had to shut down production.

Libya's oil minister said on Monday the government was working to end the disruptions by meeting with the protesters and appointing a new head of the Petroleum Facilities Guard
3. _____

"Groups closed the ports of Ras Lanouf, Zeuitina, Al-Sedra and Al-Hariga, forcing a drop in production to less than 30 percent of normal levels," Zeidan told reporters.

Over the past few months the oilfields and export terminals have been affected by everything from striking security guards to militias fighting over who should get security contracts. There also has been criminal looting at petroleum service centres and production facilities and fears of terrorist activity by al-Qaida or other jihadist groups. A surge in bombings, assassination and a mass jail breakout in the country's second-largest city, Benghazi has added to the insecurity.

According to the country's oil minister, Abdelbari al-Aroussi, Libya is now only exporting 330,000 barrels through the port at Zawiya, 4. _____ .

Oil accounts for more than 80 percent of Libya's gross national production and more than 95 percent of exports. The country's oil production stood at 1.6 million barrels a day just before the 2011 uprising that toppled Muammar Gaddafi. During the NATO-backed uprising oil production it shrunk to just 60,000 barrels a day, according to the International Energy Agency.

5._____

But oil industry insiders told VOA they thought the numbers were exaggerated and the output was at least a quarter of a billion barrels a day short of the government claims. Some still remain sceptical about the government figures.

"It isn't that hard to play around with the numbers," said a foreign oil consultant, who declined to be named, fearing to do so could jeopardize his future work for Libya's National Oil Corporation. "Production did resume quite quickly because everyone took a short cut when it came to repairs and delayed replacing pipelines and equipment that are past their optimum life spans."

Security issues and the resulting supply disruptions plaguing Libya's oil industry are deterring some major foreign oil companies from competing for contracts to manage the fields, say oil analysts. Industry experts say some oil majors such as Royal Dutch Shell have been cautious about bidding for contracts or expanding operations in Libya.

Although denying it was pulling out of Libya, late last year Shell suspended some exploration projects in the country, arguing the results had been disappointing. 6._____.

"Shell wants a stable security environment - and they aren't the only ones worried about strikes, opportunistic gun attacks and spotty security. No one wants to see a repeat of the al-Qaida attack earlier this year in Algeria," said a foreign oil consultant, who has reviewed the workings of the recently created Petroleum Facilities Guard.

"The Libyan government is still a long way from consolidating control of the country's oilfields, pipelines and ports," he says.

- A. the one remaining export terminal that so far has been free of disruption or strike activity by the guards demanding back pay and better salaries
- B. but that appointment also appears to have enraged some of the strikers
- C. without which Libya will struggle to repair the damage caused by the war which saw Gaddafi overthrown.
- D. The work stoppage came just hours after gunmen wounded a guard and ransacked an oil service centre Sunday evening in the eastern oasis town of Awjila. Libyan officials said they believe the attack was linked to the competition between militia groups over oilfield contracts and the placement of their members in the newly created national Petroleum Facilities Guard, a force

under the direct authority of the Defence Ministry, but made up largely of former militia members who had often fought among themselves.

E. Industry insiders say the key reason for that decision revolved around security concerns.

F. In the latest disruption, security guards re-imposed a strike they called off over the weekend, forcing the closure of Libya's two main crude oil export terminals.

G. Libya's transitional authorities were quick to encourage foreign oil companies and the Libyan National Oil Corporation to resume production quickly after fighting stopped. In the autumn of 2011, to the surprise of foreign oil experts, they claimed production almost matched pre-war levels.

B. Find words that match the following definitions. (6 x 1 point = 6 points)

1. to risk harming, destroying or losing sb/ sth (v) - _____
2. the crime of stealing things from shops or other places after a riot, fire etc. (n) - _____
3. to take power away from a leader or government especially by force (v) - _____
4. to cause pain or trouble to sb/ sth over a period of time (n) - _____
5. good only in some parts and bad in others (adj) - _____
6. to go through a place stealing things and causing damage (v) - _____

III. GENERAL ENGLISH VOCABULARY AND GRAMMAR (40 x 1 point = 40 points)

A. Fill in the blanks choosing the word which fits best. (10 x 1 point = 10 points)

1. The new controversial tax law comes into _____ from next May. Everyone should prepare themselves to avoid problems.

a) legality b) age c) force d) existence

2. The new teacher was taken advantage of by the students and often had to _____ her authority.

a) assert b) confirm c) inflict d) strike

3. If you continue to _____ debts at this rate, you will have to declare bankruptcy eventually.

a) save b) raise c) incur d) default

4. During the riots hundreds of people broke into the city's main department store and _____ it. There was almost nothing left after the night had finished.

5. There was a veritable _____ of angry phone calls from members of the public complaining about the new controversial series on TV.

7. I don't think anyone understood what I was saying at the meeting, did they? I totally failed to get my point .

a) around b) about c) across d) along

7. What really me as I walked into the office was the number of women working there.

a) occurred b) realized c) struck d) seemed to

8. Did you ever _____ for anything when you were a child or did you have everything you desired?

9. You must go and see that new soppy film with Richard Gere. Don't be afraid to _____ a few tears though. I did!

10. Don't take _____, but I don't think your scheme can match the other ones.

B. Use the word given in bold to form a word that fits the gap. (10 x 1 point = 10 points)

1. The survey showed many young offenders had had difficult _____.

BRING

2. The tunnel under the river is near _____ now and should be open before next summer.

COMPLETE

3. Most of the engine's problems are due to _____. The car has been parked here for nearly a year.

USE

4. Christmas is here again, but I regret to say that I don't feel in a very _____ mood! I'm fed up with all the adverts of expensive gifts.

FESTIVAL

5. Janet seems very worried about my health at the moment, but please tell her it isn't necessary! There's no need for her to be so _____. I'm fine!

SOLICIT

6. I remember when I was just a small child, I once twisted my ankle and my father had to give me a _____ ride – carrying me on his shoulders - to get me all the way home. Lots of children like being carried in this way for fun, but on that occasion it was a necessity.

PIG

7. Oh no! You haven't broken the vase, have you? It's absolutely _____. We'll never be able to get another one!

PLACE

9. David's always making snap decisions about people. He's so _____.

JUDGE

9. The stray dog spent his days following tourists hoping to _____ one of them.

FRIEND

10. I wouldn't take Karen's winking at you too seriously if I were you Tom! She's renowned for being rather _____.

FLIRTY

C. Fill in the blanks with a missing idiom that would suit the context. Notice that there are four extra expressions that you do NOT need to use. (10 x 1 point = 10 points)

a) money to burn	h) a wet blanket
b) living out of a suitcase	i) green fingers
c) music to my ears	j) fly the nest
d) down in the dumps	k) black and blue
e) all fingers and thumbs	l) head and shoulders
f) living on a shoestring	m) chalk and cheese
g) straight from the horse's mouth	n) a loose cannon

1. I can't do up these buttons – I'm _____ today.

2. Guess what? Juan is going to work in Moscow! I got it _____ - I heard it from Andy who talked to him yesterday!

3. Kate is _____ above her twin brother when it comes to passing exams. She does a lot better than him.

4. How quickly time passes! It seems like only yesterday that my son Jason was not even born, and now suddenly he's 18 and about to . He's got a job in Spain, so he's moving there.

5. Stop complaining about the weather! It's not that cold. Enjoy the picnic and stop being such _____.

6. I'd love to get a job with a decent salary. I'm tired of _____ and spending as little as possible all the time!

7. The boss has said we can all go home early today! That's _____. This great news has made me feel so happy!

8. After a month sleeping on a friend's couch, Becky is so fed up with _____ and not having a permanent place to live that she has decided to rent a flat.

9. Katy has been _____ since she failed her exam for the second time. She looks really miserable. Maybe a girls' night out will brighten her day.

10. Although the twins look the same, when you talk to them you realise they're like

D. Fill in the blanks with the correct preposition. (10 x 1 point = 10 points)



IV. CULTURE (10 x 1 point = 10 points)

Choose the correct answer. (10 x 1 point = 10 points)

1. Which of the following musicians rejected a knighthood:

- a) Bono
- b) David Bowie
- c) Elton John
- d) Paul McCartney

2. Who built the Tower of London?

- a) Henry VIII
- b) Maria Stuart
- c) Oliver Cromwell
- d) William the Conqueror

3. What is the population of Australia?

- a) 10 million
- b) 25 million
- c) 30 million
- d) 40 million

4. What and where is England's oldest pub?

- a) The Adam and Eve in Norwich
- b) The Falcon Inn in Chester
- c) The Old Bell in London
- d) The Old Trip to Jerusalem in Nottingham

5. What is the capital of California?

- a) Los Angeles
- b) Sacramento
- c) San Diego
- d) San Francisco

6. What US city has the biggest area?

- a) Chicago
- b) Los Angeles
- c) Sitka
- d) San Francisco

7. Which island lies between England and Ireland?

- a) Isle of Man
- b) Isle of Skye
- c) Jersey
- d) Shetland Islands

8. What is the highest mountain in the USA?

- a) Mount Blackburn
- b) Mount Elbert
- c) Denali
- d) Mount Whitney

9. Which part of the UK is not found on its flag?

- a) England
- b) Northern Ireland
- c) Scotland
- d) Wales

10. What is a quid?

- a) 100 Pound Sterling
- b) 1000 Pound Sterling
- c) 10 US Dollars
- d) one Pound Sterling

V. SCIENTIFIC ENGLISH & TECHNICAL TASKS (15 x 1 point = 15 points)

A. *Choose the correct answer. (7 x 1 point = 7 points).*

1. A surface that curves inwards is called _____.

- a. inclined
- b. perpendicular
- c. concave
- d. curved

2. _____ is a technique used for crushing something into powder.

- a. Milling
- b. Sawing
- c. Turning
- d. Drilling

3. A triangle with three sides of the same length is called _____.

- a. equilateral
- b. isosceles
- c. scalene
- d. right-angled

4. _____ is joining two pieces of metal together by heating them until they almost melt and then pressing them together.

- a. Sintering
- b. Casting
- c. Forging
- d. Flash welding



5. A quantity measured in square metres is called _____.

- a. area
- b. volume
- c. length
- d. density

6 _____ is a name of a tool that is used to lift part of a car off the ground.

- a. A jack
- b. A lever
- c. An adjust
- d. A flap

7. _____ is a part of a machine or system that moves something or makes something work.

- a. A sensor
- b. An actuator
- c. A socket
- d. An inverter

B. Fill in the text with the appropriate words provided above the text. Notice that there are two extra words that you do NOT need to use. (8 x 1 point = 8 points)

- a) dissipation
- b) varies
- c) disappearance
- d) cooled
- e) limited
- f) uses
- g) appearance
- h) various
- i) revert
- j) measuring

Superconductivity refers to a complete 1._____ of electrical resistance in various solids when they are 2._____ below a characteristic temperature, called the transition temperature, which 3_____ for different materials but generally is below 20 K (-253 °C).

The use of superconductors in magnets is 4._____ by the fact that strong magnetic fields above a certain critical value, depending upon the material, cause a superconductor to 5_____ to its normal, or nonsuperconducting state, even though the material is kept well below the transition temperature.



Suggested 6. _____ for superconducting materials include medical magnetic-imaging devices, magnetic energy-storage systems, motors, generators, transformers, computer parts, and very sensitive devices for 7 _____ magnetic fields, voltages, or currents. The main advantages of devices made from superconductors are low power 8 _____, high-speed operation, and high sensitivity.